

EB-2019-0206

**Application by Resolute FP Canada Inc. for an Order Amending the
Demand Response Qualification Rules passed by the
Independent Electricity System Operator on August 26, 2015**

**Brief of Materials from the IESO Technical Panel and Board of Directors'
Review of Resolute's Proposed Market Rule Amendment**

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Memorandum

To: Technical Panel
From: Josh Duru
Date: November 28, 2018
Re: MR-00437: Demand Response – Registration and Metering Requirements

Attached for Technical Panel information is amendment submission MR-00437-Q00, submitted by Resolute FP Canada (“Resolute”), a demand response market participant. The amendment submission represents the views of Resolute and in no way reflects the views of the IESO, nor does the submission reflect the IESO’s agreement with any representations made within the submission.

In the submission, Resolute proposes that an amendment or review of the market rules is necessary to change the registration and metering requirements for market participants that provide demand response. Resolute claims that the current market rules unjustly discriminate against demand response market participants who rely on self-generation to meet their own consumption, and that the IESO’s assessment of available DR capacity should be independent of any behind-the-meter generation.

Since 2014, demand response-related design decisions have been informed by the Demand Response Working Group (DRWG). The DRWG is an open membership forum to support the effective participation and engagement of demand resources in the IESO-administered markets in general, and the Demand Response Auction in particular. All Demand Response related market rule amendments have been informed by the discussions at the DRWG and with Demand Response stakeholders.

Next Steps

The IESO is proposing that the issues raised in Resolute’s submission be referred to the DRWG, consistent with the IESO’s practice of engaging in an open dialogue with impacted stakeholders in order to inform subsequent discussion at the Technical Panel. Resolute’s amendment submission will be discussed at the DRWG as early as its next scheduled meeting on February 12. A discussion about the DRWG feedback would be tabled with the Technical Panel following discussions at the DRWG.

Notice of Dispute

Resolute has commenced a dispute under the market rules with respect to the interpretation of the market rules that relate to their participation in the IESO’s demand response auction. Arbitration of this dispute is scheduled to take place in February 2019.

Yours truly,

Josh Duru

Attach.

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Market Rule Amendment Submission

This form is used to request an amendment to the *Market Rules*. Please complete the first four parts of this form and submit the completed form by email to the following:

Email Address: Rule.Amendments@ieso.ca

Attention: Market Rules Group

Subject: Market Rule Amendment Submission

All information submitted in this process will be used by the *IESO* solely in support of its obligations under the *Electricity Act, 1998*, the *Ontario Energy Board Act, 1998*, the *Market Rules* and associated policies, standards and procedures and its licence. All submitted information will be assigned the *confidentiality classification* of “Public” upon receipt. You should be aware that the *IESO* will *publish this amendment submission* if the *Technical Panel* determines it warrants consideration and may invite public comment.

Terms and acronyms used in this Form that are italicized have the meanings ascribed thereto in Chapter 11 of the *Market Rules*.

PART 1 – SUBMITTER’S INFORMATION

Please enter contact information in full.

Name: Jacques Vachon, Senior VP, Corporate Affairs and Chief Legal Officer, Resolute FP Canada Inc.

(if applicable) *Market Participant /*
Metering Service Provider No.¹: 125299

Market Participant Class:
Demand Response Market Participant

Telephone: 514-394-2296

E-mail Address: jacques.vachon@resolutefp.com

PART 2 – MARKET RULE AMENDMENT SUBMISSION INFORMATION

Subject: Request for review of market rule pursuant to Chapter 3, section 4.2.4

Title: Demand Response Market Rule unjustly discriminates against a Market Participant / a class of Market Participants

Nature of Request (please indicate with x)

☒ Alteration

☐ Deletion

☐ Addition

¹ This number is a maximum of 12 characters and does not include any spaces or underscore.

PART 1 – SUBMITTER’S INFORMATION

Chapter: Market Rule Appendix: _____ Sections: 18.2 and 19.2.1.1
Chapter 7
Sub-sections proposed for amending: _____

PART 3 – DESCRIPTION OF THE ISSUE

Provide a brief description of the issue and reason for the proposed amendment. If possible, provide a qualitative and quantitative assessment of the impacts of the issue on you and the *IESO-administered markets*. Include the Chapter and Section number of the relevant *market rules*.

BACKGROUND:

Resolute FP Canada Inc. (“**Resolute**”) is filing this request for review of a market rule pursuant to Chapter 3, section 4.2.4 of the IESO Market Rules (the “**Market Rules**”) and ss. 35(1) and 35(4) of the *Electricity Act, 1998* (“**Electricity Act**”).

In accordance with these provisions, Resolute requests that the IESO clarify or amend the Market Rules discussed below to align the relevant Market Rules to be consistent with the purposes of the *Electricity Act* and make clear that all market participants that provide demand response to the IESO are to be treated equally, whether or not they rely in part on self-generation to meet their consumption of electricity.

If the IESO does not provide for non-discriminatory treatment, consistent with the purposes of the *Electricity Act*, then the current rules should be overturned by the Ontario Energy Board.

BRIEF DESCRIPTION OF THE ISSUE:

Context

As a Demand Response Market Participant (“**DRMP**”), Resolute has been providing DR to the IESO under the Demand Response 2 (“**DR2**”) and Demand Response 3 (“**DR3**”) programs created by the IESO’s predecessor, the Ontario Power Authority, as well as the Capacity Based Demand Response program (“**CBDR**”) and the current DR auction (“**DRA**”) (collectively, DR2, DR3, CBDR and DRA will be referred to as the “**Demand Response Programs**”).

For the purpose of its participation in the Demand Response Programs, Resolute registered its Thunder Bay news-mill manufacturing facility as the Demand Response Program resource (the “**Mill**”). To do this, Resolute made use of two revenue-grade electricity meters: one that measures the consumption of the Mill from IESO-controlled grid (the “**IESO Grid Meter**”), and the other that measures the consumption of the Mill from its cogeneration facility (the “**Mill Revenue Meter**”).

The sum of the data measurements from these two meters accurately identify the total load of the Mill and that Facility’s available capacity for the Demand Response Programs. The total load for the Mill was determined, and continues to be, between 70 – 110 megawatts, depending on manufacturing operations.

The IESO accepted this measurement as accurately reflecting the total available capacity of Resolute’s Mill and approved Resolute’s participation in DR2, DR3, CBDR and the DRA.

PART 3 – DESCRIPTION OF THE ISSUE

The measurement of the total load (available capacity) of a resource is critical to participation in the Demand Response Programs. This measurement identifies the “baseline” against which compliance with a demand response activation is determined. In other words, if the IESO issues a demand response activation, it will measure the facility’s load during the period of time when the activation is operative, and compare it to the total baseline load of a resource in order to confirm that a DRMP has in fact reduced its load as directed and contracted for under the Demand Response Programs. If the measurements confirm that the DRMP has not reduced its load as required, the IESO may issue penalties and other sanctions against the DRMP.

Resolute’s Registration For The 2016/2017 Auction

In registering for the DRA, and with the IESO’s knowledge, guidance, and participation, Resolute understood that the total load of the Mill would be measured using the same aggregated meter data, measured by both the IESO Grid Meter and the Mill Revenue Meter, as was previously relied on to determine Resolute’s total available capacity for the DR2, DR3 and CBDR Programs.

Resolute was successful in both the 2016 and 2017 DRAs, and the IESO awarded it a maximum demand response capacity obligation of between 46 and 51 megawatts under these programs, reflective of its actual total load.

REASON FOR THE REQUESTED AMENDMENT:

Despite the above-described acceptance of Resolute’s registration parameters, IESO Staff has subsequently taken the position that the baseline measurement for Resolute’s participation in the DRA will only take into account measurement data from the IESO Grid Meter and the IESO will not accept or refer to measurement data from the Mill Revenue Meter.

According to IESO staff, this position is based on the fact that Resolute operates a cogeneration facility, which in part supports the electricity needs of the Mill, and accordingly the IESO will measure only that part of Resolute’s load which is serviced by the grid. If Resolute was not operating a cogeneration facility, then the IESO would accurately measure its baseline capacity with reference to its actual total load.

The consequence of IESO Staff’s interpretation of the Market Rules is that the electricity measured by the Mill Revenue Meter meter will not be taken into account in measuring the Mill’s baseline consumption. Consequently, the mill will artificially be deemed to only consume electricity from the grid and Resolute will not be able to have its demand reduction measured against the demand served by its self-generation (and measured by the Mill Revenue Meter).

IESO Staff has been unable to identify a Market Rule that supports this position and Resolute does not agree that this position is correct under the Market Rules.¹

IESO Staff’s Interpretation is Inconsistent with the Purposes of the *Electricity Act* and Discriminatory, and Should be Corrected by a Market Rule Amendment

IESO staff’s interpretation is inconsistent with the purposes of the *Electricity Act* and results in the Market Rules unjustly discriminating against Resolute and other Market Participants who rely on self-generation to meet their consumption of electricity, and who offer demand response in the DRA.

¹ IESO Staff bases its position on its interpretation of Market Manual 12, sections 4.3 and 6.3.2, which is not a Market Rule and cannot impact rights of market participants.

PART 3 – DESCRIPTION OF THE ISSUE

The purposes of the *Electricity Act*, as enumerated in section 1, include:

1(a) to ensure the adequacy, safety, sustainability and reliability of electricity supply in Ontario through responsible planning and management of electricity resources, supply and demand;

1(a.1) to establish a mechanism for energy planning;

(b) to encourage electricity conservation and the efficient use of electricity in a manner consistent with the policies of the Government of Ontario;

(c) to facilitate load management in a manner consistent with the policies of the Government of Ontario;

(d) to promote the use of cleaner energy sources and technologies, including alternative energy sources and renewable energy sources, in a manner consistent with the policies of the Government of Ontario; and

...

(g) to promote economic efficiency and sustainability in the generation, transmission, distribution and sale of electricity.

IESO Staff's interpretation is inconsistent with these purposes. Co-generation is an energy-efficient process that converts by-product industrial waste heat into clean energy. The IESO Staff take the position that if Resolute wishes to receive the full benefit of the DRA program, Resolute may elect to draw all of the Mills' electricity needs from the IESO grid, in which case its actual total load will be measured by the IESO Grid Meter and taken into account by the IESO. This position discourages efficient, clean energy processes such as co-generation, and results in additional congestion on the grid which impacts electricity resources and reliability, all of which is contrary to the purposes of the *Electricity Act*.

In addition, IESO Staff's interpretation discriminates against Resolute. Unlike loads without self-generation, on IESO staff's interpretation, Resolute is prevented from receiving full compensation under the DRA based on the actual load of its Facility. Settlement, according to the IESO, only takes into account a partial measurement of Resolute's load, without consideration of the real reduction in load of the Facility in response to a DR activation. Resolute operates a paper mill. Its energy requirements are based on the production lines of the Mill. In order to achieve a reduction in load, whether its baseline is measured by the IESO Grid Meter or both the IESO Grid Meter and the Mill Revenue Meter, Resolute must stop operating its production lines. Accordingly, on the IESO's interpretation, Resolute's compensation under the DRA program – meant to off-set and compensate it for its loss of production, is less than other loads participating in the program, because the IESO refuses to read all meters required to accurately measure the Facility's load. In contrast, since Resolute in fact decreases its energy consumption in proportion to its actual load, the IESO gets the full benefit of Resolute's reduced energy consumption without reimbursing Resolute commensurately. IESO staff has not demonstrated that this discriminatory treatment is necessary to meet the purposes of the DRA. Accordingly, its interpretation of the Market Rules unjustly discriminates against Resolute.

The Market Rules should therefore be reviewed by the IESO to make clear that the interpretation of the Market Rules is consistent with the purposes of the *Electricity Act* and all DRMPs are to be treated equally.

If the IESO does not correct this outcome, then the current Market Rules are inconsistent with the

PART 3 – DESCRIPTION OF THE ISSUE

purposes of the *Electricity Act* and discriminatory, and should be overturned by the Ontario Energy Board.

PART 4 – PROPOSAL (BY SUBMITTER)

Provide your proposed amendment. If possible, provide suggested wording of proposed amendment.

As Resolute believes that the current Market Rules are clear, no specific amendments are required. However, for clarity, Resolute proposes that the following Rule be added to Chapter 7, 18.2 and the Market Rule at Chapter 7, 19.2.1.1 be amended as follows:

Chapter 7, 18.2: “For greater certainty, with respect to determining a *demand response market participant’s demand response capacity*, nothing in this Rule shall be used to differentiate between meters that connect *demand response market participants* to the IESO-administered grid and meters that measure self-generation.”

Chapter 7, 19.2.1.1: “demonstrates to the satisfaction of the *IESO* that it can provide the *demand response capacity obligation*, as specified in the applicable *market manual*, without differentiation by the IESO between meters that connect *demand response market participants* to the IESO-administered grid and meters that measure self-generation.”;

PART 5 – FOR IESO USE ONLY

Technical Panel Decision on Rule Amendment Submission: _____

MR Number: _____

Date Submitted to Technical Panel: _____

Accepted by Technical Panel as: (please indicate with x) Date: _____

☐ General ☐ Urgent ☐ Minor _____

Criteria for Acceptance: _____

Priority: _____

Criteria for Assigning Priority: _____

Not Accepted (please indicate with x): ☐

Technical Panel Minutes Reference: _____

Technical Panel Comments: _____

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Technical Panel Meeting Agenda

Date: January 29, 2019	Time: 10:00 am to 11:00 am
Meeting Chair and Facilitator:	Mike Lyle, Vice President, Legal Resources and Corporate Governance, IESO
This meeting will be conducted via teleconference. If you have any questions please email engagement@ieso.ca	

Time	Agenda Item	Responsible Party	Expected Actions
10:00 am (10 min)	Item 1: Introduction and Administration • Review of Agenda • Review draft Minutes of previous meeting • Chair's remarks	Mike Lyle, Chair	• Approval of Agenda • Approval of Minutes • Information
10:10 am (5 min)	Item 2: Stakeholder Engagement Update	Jason Grbavac	Information
10:15 am (40 min)	Item 3: Market Rule Amendment Submission • Cover Memo • Market Rule Amendment Submission • McCarthy Letters to IESO: - December 4, 2018 - December 19, 2018 - January 23, 2019 • IESO Response to Resolute – January 18, 2019	Josh Duru	TP discussion and decision on the next steps pertaining to the Market Rule Amendment Submission
10:55 am (5 min)	Item 4: Other business	Mike Lyle	
11:00 am	Adjourn	Mike Lyle	

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IESO Technical Panel Meeting

Minutes of Meeting

Filed: 2019-12-20
EB-2019-0206
IESO Technical Panel and Board Materials

Date held: January 29, 2019		Time held: 10:00 am	Location held: Teleconference
Invited/Attended	Sector Representation		Attended/Regrets
Robert Bieler	Consumer		Present
David Brown	Ontario Energy Board		Present
Ron Collins	Energy-Related Businesses and Services		Present
David Dent	Other Market Participant		Present
Sarah Griffiths	Other Market Participant		Present
Robert Lake	Residential Consumer		Present
Phil Lasek	Industrial Consumer		Present
Dave Forsyth	Consumer		Present
Sushil Samant	Generator		Present
Joe Saunders	Distributor		Present
Jessica Savage	IESO		Present
Vlad Urukov	Generator		Present
Julien Wu	Wholesaler		Present
Michael Lyle	Chair		Present
Observers / Presenters			
Jo Chung	IESO		Present
Josh Duru	IESO		Present
George Vegh	McCarthy Tétrault LLP		Present
Secretariat			
Reena Goyal	IESO		Present
Jason Grbavac	IESO		Present
Prepared by: Kathy Pearsall / Smarter Shift Inc.			

Agenda Item 1: Introduction and Administration

Agenda

The meeting agenda was approved with no comments, questions, or additions.

Minutes and Action Items

The minutes of the August 14, 2018, meeting were approved unanimously.

Agenda Item 2: Stakeholder Engagement Update

Jason Grbavac, IESO, provided an update on current engagements.

With respect to Market Renewal, high-level designs (HLDs) for the Single Schedule Market (SSM), the Day-Ahead Market (DAM), and the Enhanced Real-Time Unit Commitment (ERUC) are nearing the detailed design phase. The DAM and ERUC HLDs are still under review and comments are due by February 28. Stakeholders will be invited to participate in the detailed design engagement to address specific design elements.

A kick-off meeting tentatively planned for March will walk stakeholders through the various design elements of the Energy stream. The Technical Panel is encouraged to continue participating in MRP engagement opportunities.

The HLD for the Incremental Capacity Auction will be released in March. Stakeholder review and a detailed design engagement will follow.

The IESO will provide regular updates on market renewal and non-market renewal engagement activities in 2019.

Questions

Mr. Urukov said a handy document on active engagements was last published in November 2018. He asked whether an update is coming. Mr. Grbavac said the engagement report was paused late last year, and the IESO is looking at reviving it before the Panel meeting in March.

Mr. Dent asked when market rule amendments driven by Market Renewal detailed design work might start rolling out. Mr. Grbavac said design forum conversations would begin after the March kick-off meeting. Mr. Chung said the Market Renewal amendments might be published for stakeholder comment by the fourth quarter of 2019.

Agenda Item 3: Market Rule Amendment Submission	
IESO Support Staff	Josh Duru
Stakeholder Plan	MR-0437-Q00: Resolute FP Canada (“Resolute”) Market Rule Amendment Submission – Demand Response Registration and Metering Requirements

The Chair said the purpose of the discussion was to seek the Panel’s recommendation on processing a market rule amendment submission from Resolute FP Canada. Josh Duru, IESO, will deliver an overview of the submission. George Vegh, McCarthy Tétrault LLP (“McCarthy’s), will describe the amendment and provide context.

Mr. Duru said that on October 11, 2018, McCarthy’s filed an amendment submission with the IESO on behalf of Resolute. It claims the demand response (DR) market rule unjustly discriminates against market participants, or a class of market participants. The IESO sent the amendment submission to the Panel on November 28, 2018. At that time, the IESO proposed that the submission be referred to the Demand Response Working Group (DRWG) at its first meeting in 2019. In response to the IESO’s November 28 memo to the Panel, McCarthy’s raised concerns that were documented in letters to the IESO which have been published on the Panel’s web page, along with the IESO’s response. The IESO requests that the Panel support the proposal that the submission be referred to the DRWG in order to inform future Panel discussions.

Questions for IESO Staff

Mr. Samant asked whether there was a DRWG meeting after the amendment submission proposal. Mr. Duru said the letter was sent to the Panel in advance of the joint IESO Board/Panel meeting on December 4. The last DRWG meeting of 2018 was before the submission was received and the next DRWG was scheduled for February 2019.

Ms. Griffiths asked for confirmation that the first time the Panel knew of McCarthy’s concerns noted in their December 4th letter was in January when it received material that included the McCarthy’s letters. Mr. Duru said the Panel was first informed of the concerns in January.

Mr. Bieler said Mr. Grbavac circulated the amendment submission proposal to the Panel on November 28, but no formal Panel meeting was held at the time. Mr. Duru confirmed. Mr. Grbavac indicated that the annual joint IESO Board/Panel meeting is an opportunity to connect the two groups on broader perspectives, with the Resolute submission sent to the Panel with proposed next steps indicated in the November cover memo. Mr. Bieler noted that today is the first Panel meeting where the amendment submission is being discussed. Mr. Duru confirmed.

Mr. Urukov said some of language around next steps was expanded after the November memorandum. He asked whether this was done in response to further comments made by Resolute or to clarify the IESO’s original intent. He asked whether the Panel was to have provided an opinion. Mr. Duru said that at this time the IESO is seeking explicit endorsement of

the proposal put forward in November and that the IESO's proposed course of action indicated in the November cover memo has not changed.

Ms. Griffiths asked whether there are examples of amendment requests from other market participants that were sent to an established working group. Ms. Savage said amendment submissions driven by market participants are rare and the IESO has only received one or two in recent history.

Mr. Bieler said he supported the amendment submission going first to the DRWG because it is a technical matter concerning the configuration of meters. The DRWG discussion would inform the Panel discussion.

Mr. Forsyth asked what the alternatives are if the submission does not go to the DRWG. The Chair indicated that the Panel could vote that the amendment warrants consideration and determine what process or forum would best assist the Panel.

Mr. Saunders said it was mentioned in the documentation that the arrangement with the revenue meters and grid meters has been accepted in previous programs, and that the IESO has changed its position. He asked the IESO to explain further. Mr. Grbavac said previous DR opportunities were provided in contracts from the former Ontario Power Authority. The IESO worked with stakeholders to transition to a market-based mechanism that brought changes to older, contract-based opportunities. Changes were made to DR2 and DR3 program rules and requirements.

Mr. Collins asked how many other entities could be affected by the submission. Mr. Grbavac said only one participant has been heard from.

The Chair turned the discussion over to Mr. Vegh and invited the Panel to ask questions.

Mr. Vegh provided the details of the amendment. Resolute is asking that the Panel follow the market rules. The rules demonstrate the need for the Panel to act independently and not be managed by IESO staff. There is concern regarding the role of the IESO in managing the DRWG process in this matter.

In November, Resolute proposed a simple market rule amendment to the IESO with respect to the DR program. Resolute does not see the market rule itself as discriminatory. Rather, it is Resolute's position that the interpretation of the rule by staff is discriminatory. The amendment seeks a clarification of the market rule that the measurement of DR includes demand served by the grid as well as by self-generation. The market rules do not differentiate, and Resolute's position is that there should be no differentiation. The IESO's interpretation is that self-generation counts toward DR behind the distribution meter but does not count if the customer is directly connected. Resolute does not agree with the IESO's interpretation and asks for clarification from within the market rules.

Furthermore, if the IESO's interpretation of the market rule stands, the rule will be seen as discriminatory under the *Electricity Act*, and this would provide grounds for the Ontario Energy Board to overturn it.

Resolute raised concerns that the amendment submission should not be administered through the DRWG, but the IESO has not addressed the concern. Resolute claimed that IESO staff said that they control the market rule amendment process and that this particular amendment will not pass. Under the market rules, IESO staff do not control the amendments. The Panel has an independent mandate to consider the rules and their merits. The Panel's terms of reference differentiate between rules brought forward by IESO staff and those that are not. The role of the Panel is limited to considering whether the language of the rule meets the goal of the proposed amendment.

Resolute filed the amendment in November, and it has been difficult to get the amendment to the Panel. Three letters were provided (two in December, one in January), and it has been difficult to get a response. Resolute stated that the position of staff that the amendment should not go forward is central to the Panel's consideration and that market participants must get a fair hearing.

The rules being discussed are in Chapter 3, Section 4 of the market rule amendment process. The rules set up a requirement for the Panel to undertake a specific, transparent process in making determinations regarding proposed rules.

Resolute went on to describe the following sections of the Market Rules:

- Section 4.2.4 requires that amendment submissions be put forward. Resolute put forward its submission in November.
- Section 4.3.2 states that the Panel may request that the submitter provide further particulars. The Panel has not made a request.
- Section 4.3.5 states that the Panel shall report to the board and give notice to market participants or other interested persons as to whether the request for amendment is, in the opinion of the Panel, of such a nature that consideration is warranted as well as the extent of the consultation. There is no prescribed step stating that it should be left up to IESO staff to consult with others and report back to the Panel.

Mr. Samant asked whether the Panel would be following Section 4.3.2 by asking the submitter whether stakeholders were consulted regarding the amendment submission. Mr. Vegh said the Panel could request that the person submitting the amendment provide further particulars. Section 4.3.5.1 addresses the consultation. Mr. Samant said he wants to know whether the participant has consulted stakeholders. Mr. Vegh said he does not believe so. It is not that Resolute is opposed to stakeholder consultation; rather, Resolute wants the matter to be managed by the Panel.

Mr. Vegh continued, section 4.3.7 states that if the Panel decides consideration is warranted, the Panel can publish the rule, seek comments, and set the time of submission. It is a very transparent process.

Mr. Bieler said it appears the cart is being placed before the horse. The IESO is saying that it is referring the submission to the DRWG to assist and inform the Panel. The Panel has not discussed or debated the submission yet because it has only just been circulated to the Panel. Whether or not the IESO should have first gone to the DRWG is up for debate. The normal Panel process has not yet begun. The Panel now awaits comments from the DRWG, and the Panel will debate the rule amendment. Mr. Vegh said that short-circuiting the submission process through the DRWG is not consistent with what the rules require.

Mr. Samant asked whether Resolute would take issue if the Panel wants to solicit input on the submission from the community at large. Mr. Vegh said it is fine if the Panel wants to directly solicit input from outside the DRWG.

Mr. Bieler said the DRWG is just one source of input.

Mr. Vegh said the submission process must be carried out in a formal and transparent way, not under the auspices of the DRWG.

The Chair noted that the one-hour time allotment for today's meeting was coming to an end and asked whether Panel members would like to continue past the hour. All Panel members agreed to stay.

Ms. Griffiths said today's discussion is a significant issue that requires more than an hour conference call. It is the first participant-driven submission in recent history, and it is precedent setting. Secondly, in the IESO's January 18th response memo to McCarthy's concerns, Ms. Griffiths indicated she has an issue with the statement that "the IESO has not received any objection to date from any Panel members on the proposed approach noted in the November 28th cover letter." Had Panel members known of McCarthy's concerns, TP members may have had an issue had they known all the facts.

Mr. Wu suggested that an in-camera session would be helpful to continue this discussion.

Mr. Urukov requested clarification of the rule amendment submission. Mr. Vegh said the rule does not need an amendment because it does not differentiate between DR behind the meter and DR that is directly connected. However, because IESO staff are not reading it this way, Resolute is proposing an amendment for clarification. Mr. Urukov asked whether Resolute is looking for further clarification from the IESO. Mr. Vegh said Resolute is looking for an amendment of the rule to provide clarification.

Mr. Vegh added that section 4.9.3 states that the Panel can establish working groups to assist it. It can set the terms of reference, the questions, and the mandate of a working group. The Panel must notify the IESO Board of its intention to set up a group, and the IESO must give notice to

all market participants and other interested parties. It is a formal process. He requested that the Panel follow the process to the letter of the law.

IESO Staff Remarks

Ms. Goyal said different IESO staff are involved in the Panel and in dispute resolution, which operates on a confidential, without-prejudice basis. Any representations that IESO staff may have made about the market rule amendment were made in the context of a without-prejudice process, not within the Panel process. As Mr. Vegh said Section 4.9.3 states that the Panel can refer the matter for further consultation. The IESO had suggested that the matter be referred to the DRWG because that group was already established and has expertise in dealing with these issues. The Panel can establish a working group or strike a subgroup of the DRWG to consider specifically mandated items. The DRWG is a public forum. It is not necessarily the DRWG's mandate to provide opinions and guidance to the IESO. The IESO merely facilitates the forum and administers the meetings. The DRWG is an appropriate and transparent forum to assist the Panel in making a determination.

Responding to Mr. Forsyth's earlier question about alternatives to the process, Ms. Goyal said if the Panel determines that the DRWG is not the correct forum, it is within the purview of the Panel to direct the IESO toward an appropriate forum.

Mr. Vegh said it is not accurate to state that the comment by IESO staff that the market rule amendment would not pass was made without prejudice. Resolute asked three times for correspondence to determine who within the IESO has been communicating with whom about the submission. Given the lack of response, Resolute filed a Freedom of Information request. The IESO will need to demonstrate that there is a separate group that does not communicate with the Panel. The terms of reference state that the DRWG was established to advise and assist the IESO, and not the Panel, which is independent.

The Chair said it was the view of IESO staff that the DRWG would be of assistance to the Panel in making a determination, just as other working groups and/or committees have supported the Technical Panel's review of recent amendments, e.g. Capacity Exports. It is a decision for the Panel to make.

Ms. Griffiths said the letter from the IESO to McCarthy Tétrault made her uncomfortable. It stated that the IESO had heard no objections from Panel members concerning the proposed approach. However, the Panel did not have enough information to provide any response.

The Chair suggested that it appears that Panel members would like time to deliberate without IESO staff and legal counsel present. Panel members confirmed and agreed to attend an in-camera meeting on Thursday, January 31, at 4 p.m. The purpose of that meeting will be to discuss the process going forward, not to make a decision on the rule amendment.

It was agreed that Ms. Savage, who is both a Panel member and IESO staff, would be invited to attend the in-camera meeting. It was agreed that there is no conflict if a Panel member in attendance is also part of the DRWG.

The meeting adjourned at 11:20 a.m.

Action Item Summary			
Date	Action	Status	Comments
Jan. 29, 2019	In camera meeting to discuss the process for the market rule amendment proposed by Resolute.	Closed	In-camera session occurred on January 31, 2019.

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IESO Technical Panel Meeting

Minutes of Meeting

Date held: August 14, 2018		Time held: 9:00 am	Location held: IESO Office, Toronto
Invited/Attended	Sector Representation	Attended; Regrets	
Robert Bieler	Consumer	Present	
Ron Collins	Energy Related Businesses and Services	Present	
David Dent	Other Market Participant	Present	
Sarah Griffiths	Other Market Participant	Present	
Robert Lake	Residential Consumer	Present	
Phil Lasek	Industrial Consumer	Present	
Sushil Samant	Generator	Present	
Joe Saunders	Distributor	Present	
Jessica Savage	IESO	Present	
Bill Wilbur	Generator	Present	
Julien Wu	Wholesaler	Present	
Bing Young	Transmitter	Present	
Michael Lyle	Chair	Present	
Observers / Presenters			
Ioan Agavriloai	IESO	Present	
Jo Chung	IESO	Present	
Warren Hill	IESO	Present	
Joseph Ricasio	IESO	Present	
Angeli Jaipargus	IESO	Present	
Observers			
Secretariat			
Reena Goyal	IESO	Present	
Jason Grbavac	IESO	Present	

Prepared by: Mitchell Beer / Smarter Shift Inc.

Agenda Item 1: Introduction and Administration

Chair's Remarks:

The meeting agenda was approved with no comments, questions, or additions.

The Chair asked for a revision on page 5, line 4 of the minutes of the last meeting, where Mr. Hill stated that capacity exports “may be denied.” The minutes were approved as amended.

The Chair noted that the meeting would be followed by an in-camera session to address governance and decision-making, reflecting recent stakeholder discussions about decision-making processes for Market Renewal, and more generally for the market rules and market manuals. Facilitated discussions were also scheduled to take place the following day, during the Market Renewal Working Group meeting, and at the Stakeholder Advisory Committee the following week. An advisory group on governance and decision-making will be selected by the Board at its August 29 meeting, work through the fall, and report back to the Board with recommendations by the end of the year.

The Chair noted that this would be Mr. Wilbur's last meeting as a member of the Technical Panel and acknowledged his service, to both the Panel and the electricity sector. Nominees for a generator and consumers representative have been submitted to the IESO Board for approval at its August 29 meeting.

Agenda Item 2: Stakeholder Engagement Update

Jason Grbavac, IESO, referred participants to the update in the meeting materials. He noted that various engagements related to the Market Renewal process are approaching the high-level design phase, and will be subject to an eight-week review period. Details of those initiatives and the related engagements will be made available to the Panel in the near future.

Ms. Griffiths asked whether the engagements to which Mr. Grbavac had referred included the high-level design for the Single Schedule Market. Mr. Grbavac said that design was scheduled for a September 25 release, followed by several touchpoints with stakeholders. After the eight-week review is complete, the IESO will post a final high-level design, then work with stakeholders to determine details. The same process will apply to the Day-Ahead Market and Enhanced Real-Time Unit Commitment, both scheduled for release at the end of the year, and the Incremental Capacity Auction, which will appear in March or April, 2019.

Mr. Samant noted the interactions among the various processes and asked whether the IESO had considered publishing a single design document for the Single Schedule Market. Mr. Grbavac explained that the high-level design for the Single Schedule Market won't be completed until the other two Market Renewal initiatives have gone through their eight-week review periods.

August 14, 2018

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IESO Technical Panel

Please report any suggested comments/edits by email to engagement@ieso.ca.

Agenda Item 3: Capacity Exports	
Presenter	Jo Chung, Warren Hill
Action	Vote on whether to recommend MR-00420-R00-R01-R02 to the IESO Board for consideration at its meeting on August 29, 2018.

Jo Chung, IESO, recalled that Panel members had agreed in June to publish the Capacity Export recommendations for stakeholder review and comment. The one comment received, from Ontario Power Generation regarding congestion management settlement credit treatment, was included in the information package with the IESO's response. He drew members' attention to one change to the amendment proposal in the settlements package (R01), clarifying that the IESO may withhold or recover real-time and day-ahead generation cost guarantees for called capacity exports, and distribute any recovered payments to market participants in accordance with section 4.8.2 of Chapter 9. The IESO is recommending that the Panel recommend the full set of Capacity Export rules to the Board for consideration at its August 29 meeting.

Warren Hill, IESO, delivered a presentation that included an update on the stakeholder engagement process on Capacity Exports, and overview of market manual changes and examples on the transmission outage portion of the package.

Mr. Samant asked if the Panel was voting on all three amendment proposals (R00, R01, R02). Mr. Chung said members would be asked to vote on the three amendments at once, but would be welcome to comment on each one individually.

Mr. Lake asked whether the market rules included a reference to force majeure. Mr. Hill said the definition of outages is included in the market manuals, but that force majeure is a different concept.

Mr. Samant referenced the bullet on slide 7 which summarized TP member comments to see market manual content prior to a TP vote to recommend the market rules. He noted that details on the manual content had only been circulated the previous Thursday, and asked whether the content had been sufficiently stakeholdered. Mr. Hill explained that there would be further stakeholdering during the pending changes process, and that members of the capacity exports stakeholder engagement were notified when Technical Panel materials were posted.

Mr. Wilbur noted on slide 12 (CMSC treatment) that OPG's was suggesting that CMSC could be reduced to an amount lower than the normal formula would dictate, and suggested that as a compromise position. The IESO replied that the example was not relevant to the current discussion. Mr. Wilbur said OPG was trying to point out that there was some precedent of limiting CMSC in the past. He indicated that he would vote in favour of the market rule amendments, despite some minor disagreements, noting that capacity exports as a whole are good for generators.

Mr. Samant asked what would happen if a vote did not proceed, and whether the capacity exports pilots would continue. Mr. Hill said the purpose of the pilot had been to gain experience with capacity trade and exports, support program design, and identify emerging issues. However, pilot projects are not open ended and must end. Jessica Savage, IESO, said the capacity exports initiative is at the point where more rigour around the process and codification of how everything works is required within the market rules. Mr. Samant asked whether the Technical Panel vote could be delayed one more meeting to allow stakeholders more time to digest the transmitter outage related market manual information. Ms. Savage said that would depend on the terms and timing of the next call for auctions in neighbouring jurisdictions. Mr. Hill indicated that there may be a potential opportunity in the New York auction at the end of September.

Mr. Dent noted Mr. Hill's point, on page 9 of his presentation, which indicated capacity exports are already ineligible for CMSC in most circumstances, and asked under what conditions they would be eligible. Mr. Hill explained that, in the absence of a market rule amendment, CMSC would be paid constrained-off CMSC under certain circumstances.

Mr. Bieler asked whether another jurisdiction would be permitted to import capacity from Ontario just because it was more economical/ less expensive than local generation. Mr. Hill replied that capacity exports are to be called strictly for reliability reasons, , and not to be called on an economic basis.

Mr. Wu commented that at the last Panel meeting, there was a lot of discussion regarding the transmission outage rules, and he asked Mr. Young whether he had any remaining concerns. Mr. Hill said the outage management groups from the IESO had met with Hydro One on one occasion, and that a number of calls and emails went back and forth. The IESO also conferred with one generator during the drafting of the market manual content.

Mr. Young acknowledged the opportunities for input that had been made available to Hydro One's planning and operating groups, and thanked the IESO for advancing its work on the market manual revisions. He said he would support the proposed market rule amendments, and identified a couple of items that might require refinement, including a common understanding of "connection facility" and scope of what is deemed "reliability."

Mr. Samant asked how a market participant would interact with at Hydro One. Mr. Hill said an outage information slip can be filed through CROW such that Hydro One can see it, and that the market participant could also contact their Hydro One account representative. Mr. Young said market participants can contact Hydro One early in the process, and start discussions with their Hydro One account representative.

Ms. Griffiths asked whether the timeline on page 20 of the presentation was included in the market manuals. Mr. Hill said the information was not represented in that form, but that the timeline reflected the cumulative result of the steps outline in the manuals.

Mr. Young suggested that the market manuals include examples of the most typical connection arrangements, with an indication of the facilities that are deemed to be affected or not, along with logistical details on who talks to whom and in what sequence. Mr. Hill said the sequencing would be reflected in the manuals.

Ms. Griffiths asked whether there was any risk that Hydro One would face too many capacity export requests, and would only be able to get through half of them due to internal constraints. Mr. Hill said that this was theoretically possible, and pointed to the importance of contacting Hydro One as early as possible on any proposed capacity exports.

Mr. Young noted that the Ontario system would be facing a considerable work program, involving significant upgrades to existing facilities. Temporarily replacing the output from those assets may require significant outages for longer periods of time. In that situation, he said, the details will matter. So it will be important for generators to advise Hydro One of possible capacity exports as soon as possible, and for Hydro One to convey its own requirements in turn. Mr. Bieler noted that the maximum advance period for submitting capacity exports to the IESO for review is six months. Mr. Hill said the minimum is 15 weeks. Mr. Hill clarified that a maximum commitment period of 12 months is theoretically possible, although 6 months or less has been the norm under the pilot.

Mr. Young said timing might be a factor in generators' ability to deliver on capacity exports, since a connection facility might be out of service closer to the actual commitment period. Mr. Ricasio, IESO said that in cases where a generator can connect to two lines/circuits, that there should not be an issue. Mr. Young asked if there is a line, and an outage is approved in advance, and later a forced outage disconnects the switch, whether that outage would be revoked. Mr. Ricasio said if the outage is not for reliability, that it would be revoked. Mr. Hill responded that currently, the IESO will revoke outage approvals under similar circumstances if the outage puts the grid into a negative adequacy situation. There is a need to work through some details, but revoking outages is not strictly due to capacity exports – it is part of our normal process. Mr. Young reiterated that there are a number of scenarios, and the importance of ironing out those details in the market manuals.

Mr. Samant asked when the proposed market rules would become effective. Ms. Savage responded the targeted effective date of market rules and market manuals is in November, 2018. Mr. Samant noted that would be in time for the NYISO's summer capacity market. Ms. Savage said the effective date for the rules would depend on the availability of the market manual provisions, since the rules reference the manuals.

Mr. Samant asked what the stakeholdering plan was for the market manuals. Mr. Hill responded that manuals would be stakeholdered through the pending changes/baseline process. If there is a need for further discussion on manual content, the IESO will consider holding a subsequent stakeholdering session. The Chair said the market manuals could be brought back to the Technical Panel as information. Ms. Savage added that it would be appropriate to continue to stakeholder the manuals through the pending changes process, and

use the capacity exports stakeholder engagement, in this particular example, to work through the details.

Mr. Samant said he had originally planned to vote against recommending the draft amendments for IESO Board consideration, based on additional generator obligations in the market manual revisions that he hadn't had sufficient time to fully consider. Based on Mr. Hill's presentation, however, he said he was confident there would be time to address those issues before the rules take practical effect in summer 2019, and that he would therefore support the amendments.

Mr. Wilbur asked what the further stakeholdering process for market manuals would entail. Ms. Savage said the posted draft could be supplemented by engagement and discussion with stakeholders within the capacity exports engagement. Mr. Hill noted that the process would ultimately have to work well for generators, Hydro One, and the IESO. While it might not be the case that everyone gets everything they want, he said the intention would be to arrive at a package that works for all.

At Mr. Lake's request, Mr. Hill summarized the IESO's experience with the capacity exports pilot project, dating back to the winter of 2015/16.

Mr. Lasek asked whether an industrial site, such as an 85-megawatt cogeneration facility, would be able to export power under the capacity export rules. Mr. Hill said the rules would apply to any registered generation facility in Ontario that was not intermittent, but did not apply to demand response.

Technical Panel Vote and Comments

The Technical Panel unanimously recommended the amendment proposals for IESO Board approval. Panel members provided the following rationales in support of their votes:

Mr. Wilbur commented that generators are in support of having the ability to export capacity. In spite of minor disagreements on some aspects of the proposed implementation, capacity exports as a whole are positive for the generator community.

Ms. Griffiths was appreciative of the extra work done by the IESO to bring the requested market manual content to the Technical Panel.

Mr. Dent commended the IESO for creating an innovative capacity exports process in Ontario.

Mr. Lake commented that the capacity exports process and corresponding rules appeared fair to all market participant classes involved.

Mr. Samant indicated that he initially had concerns regarding the limited time to review draft market manual content (related to transmitter outages) prior to the Technical Panel vote. However, since the proposed market rules won't go into effect until November following

further stakeholdering of market manuals, he felt comfortable enough to vote in favour of recommending the rules for IESO Board consideration.

Mr. Bieler commented that the capacity exports mechanism appears to achieve the intended objective of providing generators with the opportunity to earn additional revenues while giving the IESO sufficient control to manage the reliability interests of Ontario.

Mr. Saunders commented that capacity exports strike a good balance for all parties involved and is a good step forward for the market.

Mr. Wu commended the IESO for providing comprehensive drafts of proposed market rule amendments and supporting material. He noted the need for a strong governance process to ensure the capacity exports process works as intended, as different jurisdictions will need to closely collaborate in capacity exports' execution. In addition, governance will need to be carefully considered within the Single Schedule Market design stakeholdering process of the Market Renewal Program, since exported capacity will be delivered to the buyer jurisdiction via the Energy market. A credible and transparent governance and dispute resolution process is critical for both regulators and participants to collaborate in the increasingly complex electricity market. Without a robust and credible governance and dispute resolution process, participants would turn to costly litigation to resolve disputes. Such legal fees will then be reflected in market prices and eventually passed on to rate-payers.

The Chair thanked Mr. Hill for his perseverance, and Mr. Samant acknowledged the very difficult task he had undertaken. Mr. Hill extended those thanks to his entire team.

Agenda Item 4: Other Business

The meeting adjourned at 10:18 AM.

Action Item Summary			
Date	Action	Status	Comments
January 23, 2018	The IESO will investigate the Technical Panel's request for more in-camera sessions.	Complete	30 minutes will be added to the end of each TP meeting to conduct an in-camera session
December 1, 2015	The IESO will provide an update to the Panel regarding the potential timelines and impacts of changing the reference to the OPA within Chapter 1 of the General Conduct Rule.	Open	

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Memorandum

To: Technical Panel
From: Josh Duru
Date: January 23, 2019
Re: MR-00437: Demand Response – Registration and Metering Requirements

Attached for Technical Panel review and consideration are the following documents:

- Amendment submission MR-00437-Q00, submitted by Resolute FP Canada (“Resolute”)¹ – previously forwarded to the Technical Panel on November 28, 2018;
- Letters dated December 4 and 19, 2018 and January 23, 2019 from McCarthy Tétrault LLP (“McCarthy’s”) on behalf of Resolute;
- IESO’s responding letter dated January 18, 2019 to McCarthy’s.

On November 28, 2018, the IESO informed the Technical Panel of Resolute’s submission and the IESO’s proposal to refer the submission to the February 12, 2019 Demand Response Working Group (DRWG) meeting (see attached [memo to the Technical Panel dated November 28, 2018](#)). The DRWG feedback is intended to assist the Technical Panel’s consideration of Resolute’s submission.

Resolute has raised concerns with the IESO’s proposal, as described in the attached letters from McCarthy’s dated December 4 and 19, 2018. The IESO’s responding letter to McCarthy’s is also attached.

Technical Panel Action and Next Steps

The IESO proposes that the issues raised in Resolute’s submission be referred to the DRWG, consistent with the IESO’s practice of engaging in an open dialogue with stakeholders in order to inform discussion at the Technical Panel. Resolute’s submission can be discussed at the next DRWG meeting on February 12, 2019, where Resolute will be invited to speak to its proposed change. Per the [DRWG Terms of Reference](#), membership in the DRWG remains open to all parties and the February 12 DRWG meeting was announced in the IESO’s Bulletin on January 17, 2019.

¹ The amendment submission represents the views of Resolute and does not necessarily reflect the views of the IESO, nor does the submission necessarily reflect the IESO’s agreement with any representations made by Resolute within the submission.

The IESO is requesting that the Technical Panel support Resolute's submission being discussed by the DRWG as contemplated under Chapter 3, section 4.9.3 of the market rules whereby the Technical Panel may establish working groups to assist in the fulfillment of its responsibilities. After input is sought from the DRWG, the IESO proposes to bring the amendment submission back to the Panel for a warrants consideration determination.

Yours truly,

Josh Duru

Attach.



Market Rule Amendment Submission

This form is used to request an amendment to the *Market Rules*. Please complete the first four parts of this form and submit the completed form by email to the following:

Email Address: Rule.Amendments@ieso.ca

Attention: Market Rules Group

Subject: Market Rule Amendment Submission

All information submitted in this process will be used by the *IESO* solely in support of its obligations under the *Electricity Act, 1998*, the *Ontario Energy Board Act, 1998*, the *Market Rules* and associated policies, standards and procedures and its licence. All submitted information will be assigned the *confidentiality classification* of “Public” upon receipt. You should be aware that the *IESO* will *publish this amendment submission* if the *Technical Panel* determines it warrants consideration and may invite public comment.

Terms and acronyms used in this Form that are italicized have the meanings ascribed thereto in Chapter 11 of the *Market Rules*.

PART 1 – SUBMITTER’S INFORMATION

Please enter contact information in full.

Name: Jacques Vachon, Senior VP, Corporate Affairs and Chief Legal Officer, Resolute FP Canada Inc.

(if applicable) *Market Participant /*
Metering Service Provider No.¹: 125299

Market Participant Class:
Demand Response Market Participant

Telephone: 514-394-2296

E-mail Address: jacques.vachon@resolutefp.com

PART 2 – MARKET RULE AMENDMENT SUBMISSION INFORMATION

Subject: Request for review of market rule pursuant to Chapter 3, section 4.2.4

Title: Demand Response Market Rule unjustly discriminates against a Market Participant / a class of Market Participants

Nature of Request (please indicate with x)

☒ Alteration

☐ Deletion

☐ Addition

¹ This number is a maximum of 12 characters and does not include any spaces or underscore.

PART 1 – SUBMITTER’S INFORMATION

Chapter: Market Rule Appendix: _____ Sections: 18.2 and 19.2.1.1
Chapter 7
Sub-sections proposed for amending: _____

PART 3 – DESCRIPTION OF THE ISSUE

Provide a brief description of the issue and reason for the proposed amendment. If possible, provide a qualitative and quantitative assessment of the impacts of the issue on you and the *IESO-administered markets*. Include the Chapter and Section number of the relevant *market rules*.

BACKGROUND:

Resolute FP Canada Inc. (“**Resolute**”) is filing this request for review of a market rule pursuant to Chapter 3, section 4.2.4 of the IESO Market Rules (the “**Market Rules**”) and ss. 35(1) and 35(4) of the *Electricity Act, 1998* (“**Electricity Act**”).

In accordance with these provisions, Resolute requests that the IESO clarify or amend the Market Rules discussed below to align the relevant Market Rules to be consistent with the purposes of the *Electricity Act* and make clear that all market participants that provide demand response to the IESO are to be treated equally, whether or not they rely in part on self-generation to meet their consumption of electricity.

If the IESO does not provide for non-discriminatory treatment, consistent with the purposes of the *Electricity Act*, then the current rules should be overturned by the Ontario Energy Board.

BRIEF DESCRIPTION OF THE ISSUE:

Context

As a Demand Response Market Participant (“**DRMP**”), Resolute has been providing DR to the IESO under the Demand Response 2 (“**DR2**”) and Demand Response 3 (“**DR3**”) programs created by the IESO’s predecessor, the Ontario Power Authority, as well as the Capacity Based Demand Response program (“**CBDR**”) and the current DR auction (“**DRA**”) (collectively, DR2, DR3, CBDR and DRA will be referred to as the “**Demand Response Programs**”).

For the purpose of its participation in the Demand Response Programs, Resolute registered its Thunder Bay news-mill manufacturing facility as the Demand Response Program resource (the “**Mill**”). To do this, Resolute made use of two revenue-grade electricity meters: one that measures the consumption of the Mill from IESO-controlled grid (the “**IESO Grid Meter**”), and the other that measures the consumption of the Mill from its cogeneration facility (the “**Mill Revenue Meter**”).

The sum of the data measurements from these two meters accurately identify the total load of the Mill and that Facility’s available capacity for the Demand Response Programs. The total load for the Mill was determined, and continues to be, between 70 – 110 megawatts, depending on manufacturing operations.

The IESO accepted this measurement as accurately reflecting the total available capacity of Resolute’s Mill and approved Resolute’s participation in DR2, DR3, CBDR and the DRA.

PART 3 – DESCRIPTION OF THE ISSUE

The measurement of the total load (available capacity) of a resource is critical to participation in the Demand Response Programs. This measurement identifies the “baseline” against which compliance with a demand response activation is determined. In other words, if the IESO issues a demand response activation, it will measure the facility’s load during the period of time when the activation is operative, and compare it to the total baseline load of a resource in order to confirm that a DRMP has in fact reduced its load as directed and contracted for under the Demand Response Programs. If the measurements confirm that the DRMP has not reduced its load as required, the IESO may issue penalties and other sanctions against the DRMP.

Resolute’s Registration For The 2016/2017 Auction

In registering for the DRA, and with the IESO’s knowledge, guidance, and participation, Resolute understood that the total load of the Mill would be measured using the same aggregated meter data, measured by both the IESO Grid Meter and the Mill Revenue Meter, as was previously relied on to determine Resolute’s total available capacity for the DR2, DR3 and CBDR Programs.

Resolute was successful in both the 2016 and 2017 DRAs, and the IESO awarded it a maximum demand response capacity obligation of between 46 and 51 megawatts under these programs, reflective of its actual total load.

REASON FOR THE REQUESTED AMENDMENT:

Despite the above-described acceptance of Resolute’s registration parameters, IESO Staff has subsequently taken the position that the baseline measurement for Resolute’s participation in the DRA will only take into account measurement data from the IESO Grid Meter and the IESO will not accept or refer to measurement data from the Mill Revenue Meter.

According to IESO staff, this position is based on the fact that Resolute operates a cogeneration facility, which in part supports the electricity needs of the Mill, and accordingly the IESO will measure only that part of Resolute’s load which is serviced by the grid. If Resolute was not operating a cogeneration facility, then the IESO would accurately measure its baseline capacity with reference to its actual total load.

The consequence of IESO Staff’s interpretation of the Market Rules is that the electricity measured by the Mill Revenue Meter meter will not be taken into account in measuring the Mill’s baseline consumption. Consequently, the mill will artificially be deemed to only consume electricity from the grid and Resolute will not be able to have its demand reduction measured against the demand served by its self-generation (and measured by the Mill Revenue Meter).

IESO Staff has been unable to identify a Market Rule that supports this position and Resolute does not agree that this position is correct under the Market Rules.¹

IESO Staff’s Interpretation is Inconsistent with the Purposes of the *Electricity Act* and Discriminatory, and Should be Corrected by a Market Rule Amendment

IESO staff’s interpretation is inconsistent with the purposes of the *Electricity Act* and results in the Market Rules unjustly discriminating against Resolute and other Market Participants who rely on self-generation to meet their consumption of electricity, and who offer demand response in the DRA.

¹ IESO Staff bases its position on its interpretation of Market Manual 12, sections 4.3 and 6.3.2, which is not a Market Rule and cannot impact rights of market participants.

PART 3 – DESCRIPTION OF THE ISSUE

The purposes of the *Electricity Act*, as enumerated in section 1, include:

1(a) to ensure the adequacy, safety, sustainability and reliability of electricity supply in Ontario through responsible planning and management of electricity resources, supply and demand;

1(a.1) to establish a mechanism for energy planning;

(b) to encourage electricity conservation and the efficient use of electricity in a manner consistent with the policies of the Government of Ontario;

(c) to facilitate load management in a manner consistent with the policies of the Government of Ontario;

(d) to promote the use of cleaner energy sources and technologies, including alternative energy sources and renewable energy sources, in a manner consistent with the policies of the Government of Ontario; and

...

(g) to promote economic efficiency and sustainability in the generation, transmission, distribution and sale of electricity.

IESO Staff's interpretation is inconsistent with these purposes. Co-generation is an energy-efficient process that converts by-product industrial waste heat into clean energy. The IESO Staff take the position that if Resolute wishes to receive the full benefit of the DRA program, Resolute may elect to draw all of the Mills' electricity needs from the IESO grid, in which case its actual total load will be measured by the IESO Grid Meter and taken into account by the IESO. This position discourages efficient, clean energy processes such as co-generation, and results in additional congestion on the grid which impacts electricity resources and reliability, all of which is contrary to the purposes of the *Electricity Act*.

In addition, IESO Staff's interpretation discriminates against Resolute. Unlike loads without self-generation, on IESO staff's interpretation, Resolute is prevented from receiving full compensation under the DRA based on the actual load of its Facility. Settlement, according to the IESO, only takes into account a partial measurement of Resolute's load, without consideration of the real reduction in load of the Facility in response to a DR activation. Resolute operates a paper mill. Its energy requirements are based on the production lines of the Mill. In order to achieve a reduction in load, whether its baseline is measured by the IESO Grid Meter or both the IESO Grid Meter and the Mill Revenue Meter, Resolute must stop operating its production lines. Accordingly, on the IESO's interpretation, Resolute's compensation under the DRA program – meant to off-set and compensate it for its loss of production, is less than other loads participating in the program, because the IESO refuses to read all meters required to accurately measure the Facility's load. In contrast, since Resolute in fact decreases its energy consumption in proportion to its actual load, the IESO gets the full benefit of Resolute's reduced energy consumption without reimbursing Resolute commensurately. IESO staff has not demonstrated that this discriminatory treatment is necessary to meet the purposes of the DRA. Accordingly, its interpretation of the Market Rules unjustly discriminates against Resolute.

The Market Rules should therefore be reviewed by the IESO to make clear that the interpretation of the Market Rules is consistent with the purposes of the *Electricity Act* and all DRMPs are to be treated equally.

If the IESO does not correct this outcome, then the current Market Rules are inconsistent with the

PART 3 – DESCRIPTION OF THE ISSUE

purposes of the *Electricity Act* and discriminatory, and should be overturned by the Ontario Energy Board.

PART 4 – PROPOSAL (BY SUBMITTER)

Provide your proposed amendment. If possible, provide suggested wording of proposed amendment.

As Resolute believes that the current Market Rules are clear, no specific amendments are required. However, for clarity, Resolute proposes that the following Rule be added to Chapter 7, 18.2 and the Market Rule at Chapter 7, 19.2.1.1 be amended as follows:

Chapter 7, 18.2: “For greater certainty, with respect to determining a *demand response market participant’s demand response capacity*, nothing in this Rule shall be used to differentiate between meters that connect *demand response market participants* to the IESO-administered grid and meters that measure self-generation.”

Chapter 7, 19.2.1.1: “demonstrates to the satisfaction of the *IESO* that it can provide the *demand response capacity obligation*, as specified in the applicable *market manual*, without differentiation by the IESO between meters that connect *demand response market participants* to the IESO-administered grid and meters that measure self-generation.”;

PART 5 – FOR IESO USE ONLY

Technical Panel Decision on Rule Amendment Submission: _____

MR Number: _____

Date Submitted to Technical Panel: _____

Accepted by Technical Panel as: (please indicate with x) Date: _____

☐ General ☐ Urgent ☐ Minor _____

Criteria for Acceptance: _____

Priority: _____

Criteria for Assigning Priority: _____

Not Accepted (please indicate with x): ☐

Technical Panel Minutes Reference: _____

Technical Panel Comments: _____



George Vegh
Direct Line: 416 601-7709
Direct Fax: 416 868-0673
Email: gvegh@mccarthy.ca

December 4, 2018

VIA EMAIL

Jo Chung
Supervisor – Market Rules, Legal Resources and Corporate Governance
Independent Electricity System Operator
1600 – 120 Adelaide Street West
Toronto, ON M5H 1T1

Dear Mr. Chung:

Re: MR-00437-Q00: Resolute FP Canada (“Resolute”) Rule Amendment Submission – Demand Response Registration and Metering Requirements (the “Rule Amendment Submission”)

I am in receipt of your email of November 29, 2018, attaching a Memo from Josh Duru to the Technical Panel, dated November 28, 2018, in respect of the Rule Amendment Submission. The memo proposes that the issues raised in the Rule Amendment Submission be first referred to the Demand Response Working Group (“**DRWG**”) and that “A discussion about the DRWG feedback would be tabled with the Technical Panel following discussions at the DRWG.”

Respectfully, proceeding in such a manner is improper. We are very concerned that IESO staff has interjected itself into the market rule amendment process in a way that is in violation of the Market Rules, and is aimed at preventing an independent consideration of the proposed rule amendment.

Market Rules Requirements

On October 11, 2018, Resolute filed the Rule Amendment Submission in accordance with Section 4.2 of Chapter 3 of the Market Rules.¹

Pursuant to Article 6.1 of IESO Governance and Structure By-Law, and Section 3.1 of Technical Panel Terms of Reference, the Technical Panel “shall comply with all applicable provisions of the market rules”.

Section 4.3.2 of the Market Rules provides that, “Upon receipt of the amendment submission, the **Technical Panel** may request that the person submitting the amendment submission provide further particulars with respect to the amendment submission.” After the **Technical Panel** considers the submission, pursuant to section 4.3.5.1, the **Technical Panel** is required to

¹ All reference to Market Rule sections are with respect to Chapter 3.

report to the IESO Board, with notice to the person submitting the request, and if the **Technical Panel** is of the opinion that consideration of the amendment submission is warranted, the report is to set out the extent of the consultation that the **Technical Panel** intends to take with market participants and other persons in consideration of the amendment.

Similarly, section 4.3.7 provides for the posting of public notice where the **Technical Panel** has confirmed that a rule amendment request is being considered, and gives the **Technical Panel** the discretion to seek written submissions from market participants and other interested persons in respect of the amendment submission.

The Market Rules thus impose an obligation on the Technical Panel to consider the proposed rule amendment. It is the Technical Panel who determines what further consultation it may require. The Market Rules do not provide that IESO staff may intervene in the market rule amendment process to prevent or delay the consideration of an amendment.

IESO staff's intervention is particularly concerning since it has advised that it will ensure that any Market Rule amendment will reflect staff's interpretation of the Market Rule, which, as IESO staff's memo indicates, is disputed. The improper interference by staff in the mandatory process established by the Market Rules is further heightened as the parties are currently engaged in formal dispute resolution on related issues. The IESO's attempt to interfere in the rule amendment process has the appearance of the IESO looking to use this process to garner support for its position in the on-going dispute.

The DRWG

Even apart from the binding Market Rule requirements, IESO staff's proposal to have this matter transferred to the DRWG for preliminary consideration is inappropriate. The DRWG is run by IESO staff. We have no confidence that IESO staff will be impartial in any DRWG review. Indeed, to reiterate, IESO staff has already made its intentions clear to rewrite the Market Rules to support its own interpretation. Given IESO staff's stated position on this matter, we do not believe that a process run by IESO staff can address the issues raised in the Rule Amendment Submission in a credible and independent manner.

Further, the basis supporting the Rule Amendment Application is that the IESO's stated interpretation discriminates against a Market Participant, namely Resolute. The DRWG is comprised of other Market Participants, who are competitors to Resolute, not similarly situated to Resolute in respect of the discrimination at issue, and are therefore self-interested. It is to avoid such conflicts, that the Market Rules provide for a mandatory, independent process led by the Technical Panel.

In sum, the Market Rules clearly provide that the Technical Panel may conduct any consultation that it considers appropriate so that it hears from all interested parties. That discretion is to be exercised by the Technical Panel in its review of the Rule Amendment Submission, in accordance with the Market Rules. It is not open to IESO staff to insert themselves into the process, invite parties who may be in conflict to weigh in on the Rule Amendment Submission, and colour the Technical Panel's review.

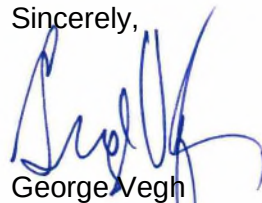
Conclusion and Next Steps

In light of the legally binding requirements of the Market Rules, and given IESO staff's stated position, we request that this matter be forwarded to the Technical Panel for its independent determination, without further delay.

In addition, to ensure that this issue is addressed transparently and to establish necessary safeguards to confirm that the Technical Panel is proceeding in a manner that is not impeded by IESO staff's self-interested position, we request that the IESO produce all internal correspondence, memos, and notes relating to its consideration of the Rule Amendment Submission, including all communications with the Technical Panel. Going forward we ask that all communications regarding consideration of the Rule Amendment Submission be documented in writing, with copy to Resolute, including all communications with or by the Technical Panel.

I look forward to receiving your confirmation that the Rule Amendment Submission has been put before the Technical Panel, and your anticipated timing for production of the requested documents.

Sincerely,

A handwritten signature in blue ink, appearing to read "George Vegh", is written over the printed name.

George Vegh

cc: Julie Parla, McCarthy Tétrault



George Vegh

Direct Line: 416 601-7709

Direct Fax: 416 868-0673

Email: gvegh@mccarthy.ca

December 19, 2018

VIA EMAIL

Jo Chung
Supervisor – Market Rules, Legal Resources and Corporate Governance
Independent Electricity System Operator
1600 – 120 Adelaide Street West
Toronto, ON M5H 1T1

Dear Mr. Chung:

Re: MR-00437-Q00: Resolute FP Canada (“Resolute”) Rule Amendment Submission – Demand Response Registration and Metering Requirements (the “Rule Amendment Submission”)

We have not received a response to our letter to you dated December 4, 2018.

As we advised in that letter, we are very concerned that IESO staff has interjected itself into the market rule amendment process in a way that is not authorized by the Market Rules, and is aimed at preventing an independent and unbiased consideration of the Rule Amendment Submission.

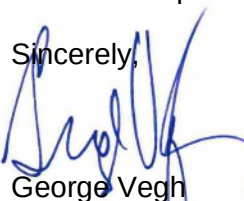
Specifically IESO staff has:

- advised that it will ensure that any Market Rule amendment will reflect staff's interpretation of the Market Rule, which, as you know is disputed; and
- circumvented the mandatory requirements of the Market Rule's for treatment of proposed rule amendment submissions, specifically, Section 4.2 of Chapter 3.

We reiterate our request for production of all past and future internal correspondence, memos, and notes relating to its consideration of the Rule Amendment Submission, including all communications with the Technical Panel. This is necessary to ensure transparency of IESO staff's handling of the Rule Amendment Submission.

Given the importance of these issues, please provide a response as soon as possible.

Sincerely,



George Vegh

cc: Julie Parla, McCarthy Tétrault



George Vegh

Direct Line: 416 601-7709

Direct Fax: 416 868-0673

Email: gvegh@mccarthy.ca

January 23, 2019

VIA EMAIL

Jo Chung

Supervisor – Market Rules, Legal Resources and Corporate Governance

Independent Electricity System Operator

1600 – 120 Adelaide Street West

Toronto, ON M5H 1T1

Dear Mr. Chung:

Re: MR-00437-Q00: Resolute FP Canada (“Resolute”) Rule Amendment Submission – Demand Response Registration and Metering Requirements (the “Rule Amendment Submission”)

Thank you for your letter dated January 18, 2019. Respectfully, Resolute disagrees with the IESO’s positions as set out in your letter.

Upon the receipt of an amendment submission, Chapter 3 Section 4.3.5 of the Market Rules requires the Technical Panel to report to the IESO Board, with notice to the Market Participant who made the amendment submission, as to the Technical Panel’s opinion. Where the Technical Panel’s opinion is that consideration of the amendment submission is warranted, the Technical Panel (not IESO staff) sets out in its report the extent of such consultation that the Technical Panel intends to take with Market Participants. Chapter 3 Section 4.3.5.1 of the Market Rules provides:

4.3.5 The technical panel shall report to the IESO Board and, where applicable, give notice to the market participant or other interested person who made an amendment submission as to whether the proposed amendment or the request for consideration of an amendment or review is, in the opinion of the technical panel:

4.3.5.1 of such a nature that consideration of the amendment submission is warranted and the extent of the consultation that the technical panel intends to take with market participants and other interested persons in the consideration of the amendment;

To our knowledge, contrary to the Market Rules, no such report has been submitted. This process is key to the governance structure of the IESO, including to ensure that the Technical Panel is properly and fairly carrying out its mandate, under a reporting obligation to the IESO Board. Chapter 3 Section 4.9.3, of the Market Rules, as referred to in your letter, merely permits the Technical Panel to establish working groups – it does not undermine the mandatory rule amendment process established by the Market Rules.

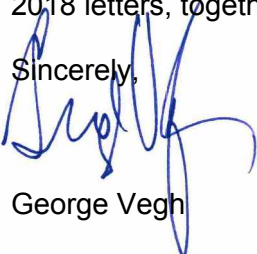
Nowhere do the Market Rules allow IESO staff to direct the rule amendment process. Being respectful of the separation of staff from the Technical Panel is of heightened importance where, like here, IESO staff is adverse in interest to the proponent. Notably, we have repeatedly referred to IESO staff's advice that it will ensure that any Market Rule amendment will reflect staff's interpretation of the Market Rule, which is disputed. To date, the IESO has not responded to, nor addressed this serious circumstance.

It remains Resolute's position that the Technical Panel is obliged to comply with the rule amendment process as established by the Market Rules. It also remains Resolute's position, for the reasons set out in my letter of December 4, 2018, that having this matter transferred to the DRWG for preliminary consideration is not appropriate. Following the mandatory process applicable to rule amendment submissions, it is for the Technical Panel and the IESO Board who is authorized to provide direction to the Technical Panel, to consider Resolute's position in that regard, in the context of the report to be provided to the IESO Board.

Regarding the authority grounding Resolute's request for documentation, we rely on the IESO's obligations of procedural fairness and natural justice, in particular in circumstances where there is a reasonable apprehension of bias. We trust that the IESO is not disputing the requirement for transparency in its dealings with Market Participants.

Finally, we confirm that Resolute consents to the posting of its December 4 and December 19, 2018 letters, together with this letter on the Technical Panel website.

Sincerely,



George Vegh

cc: Julie Parla, McCarthy Tétrault

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Technical Panel Meeting Agenda

Date: February 6, 2019	Time: 9:30 am to 10:30 am
Meeting Chair and Facilitator:	Mike Lyle, Vice President, Legal Resources and Corporate Governance, IESO
This meeting will be conducted via teleconference. To register, or if you have any questions, please email IESO Engagement at: engagement@ieso.ca	

Time	Agenda Item	Responsible Party	Expected Actions
9:30 am (5 mins)	Welcome and Introductions - Attendance - Review of Agenda	Mike Lyle, Chair	- Approval of Agenda - Information*
9:35 am (50 mins)	Item 1: Market Rule Amendment Submission Cover Memo	Josh Duru	(i) Vote to determine that the amendment submission warrants consideration (ii) Confirm TP request for stakeholder feedback
10:25 am (5 mins)	Other Business	Mike Lyle	
10:30 am	Adjourn	Mike Lyle	

*As a result of this meeting taking place shortly after the last Technical Panel meeting, the minutes from the January 29 and February 6 meetings will be reviewed by the TP at the March 5, 2019 meeting.

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IESO Technical Panel Meeting

Minutes of Meeting

Date held: February 6, 2019		Time held: 9:30am	Location held: Telephone
Invited/Attended	Sector Representation		Attended; Regrets
Robert Bieler	Consumer		Present
David Brown	Ontario Energy Board		Present
Ron Collins	Energy Related Businesses and Services		Present
David Dent	Other Market Participant		Present
Sarah Griffiths	Other Market Participant		Present
Robert Lake	Residential Consumer		Present
Phil Lasek	Industrial Consumer		Present
Dave Forsyth	Consumer		Present
Sushil Samant	Generator		Present
Joe Saunders	Distributor		Present
Jessica Savage	IESO		Present
Vlad Urukov	Generator		Present
Julien Wu	Wholesaler		Present
Michael Lyle	Chair		Present
Observers / Presenters			
Jo Chung	IESO		Present
Josh Duru	IESO		Present
Secretariat			
Reena Goyal	IESO		Present
Jason Grbavac	IESO		Present
Prepared by: Kathy Pearsall / Smarter Shift Inc.			

Welcome and Introductions

Agenda:

The meeting agenda was approved with no comments, questions, or additions.

Chair's Remarks:

An in-camera meeting was held on January 31, 2019. Discussion from that meeting has been summarized in a memo circulated by Jessica Savage, IESO, to TP members.

The Chair informed the Panel that the purpose of today's meeting was to discuss whether Ms. Savage's memo appropriately reflected the discussion that took place on January 31, and to vote on next steps to proceed with Market Rule Amendment Submission MR-0437-Q00.

Agenda Item 1: Market Rule Amendment Submission (MR-0437-Q00: Demand Response – Registration and Metering Requirement)

The Chair asked the Panel to comment on whether Ms. Savage's memo encapsulates the January 31 in-camera meeting.

Comments:

Ms. Griffiths supported the memo, stating that the in-camera meeting provided the Panel with an opportunity to understand the market rules and terms of reference, and helped to get everyone on the same page. In future, it may be possible to discuss matters of governance in a public forum.

Mr. Saunders supported the memo, adding that the in-camera meeting helped him to understand the amendment submission, which in turn will help him to understand the overall impacts of the market rule.

Mr. Collins supported the memo, stating that future in-camera meetings may be required when questions arise that are confidential or sensitive in nature. The Panel will try to make things transparent while ensuring the committee is as effective as possible.

Mr. Dent supported the memo and the in-camera session as a helpful administrative discussion to help move this issue forward, noting that this was the first time in a number of years that a market rule amendment submission had come from a market participant.

The Chair asked if the Panel would like to bring a motion for a vote. All agreed.

The Chair said three elements would be considered in the motion. Two participants suggested separate votes to reflect each element. The Chair responded that a separate vote would be held for each of the following elements:

- 1) The amendment submission warrants consideration;
- 2) The matter should be assigned a high priority; and,

3) The Panel will seek broad stakeholder input over a two-week period, and seek Demand Response Working Group (DRWG) perspectives at the February 12 DRWG meeting. Resolute will be invited to participate and present at the DRWG meeting.

Element 1:

Mr. Saunders moved to vote that the amendment submission warrants consideration.

Mr. Bieler voted in favour, stating that it was important to understand Resolute's position.

Mr. Collins voted in favour, noting that the submission identified ambiguity or confusion within the market rules that could cause interpretation confusion and lead to poor coordination or implementation, or to future disputes. He said the amendment must satisfy the market principle of efficiency with respect to the dispatch of resources and the determination of market prices.

Mr. Dent voted in favour, adding that it was necessary to fully explore the merits of the amendment submission.

Mr. Forsyth voted in favour, stating that it was important to avoid ambiguity and confusion.

Ms. Griffiths voted in favour, agreeing with the previous comments and memo by Ms. Savage, with nothing further to add.

Mr. Lake voted in favour, noting that the submission could provide for additional resources for Demand Response (DR). The DRWG needs to look at this closely and draw on outside expertise.

Mr. Lasek voted in favour, noting that, as an industrial customer installing a 10 MW storage facility, clear goals and criteria are required, especially in light of the definition change that occurred in the merging of the OPA into the IESO.

Mr. Samant voted in favour, stating that there was an impact on the market principle of efficiency. He said further discussion would provide a gateway to the next phase, which will be hearing from stakeholders.

Mr. Saunders voted in favour in order to address the ambiguity and confusion within the market rules. He said there was a need to understand the impacts on all participants.

Ms. Savage voted in favour because Resolute was claiming there was ambiguity within the market rules.

Mr. Urukov voted in favour on the basis of ambiguity and confusion on the part of Resolute. He said he would like to understand Resolute's assertion that the 2016 and 2017 auctions were treated differently from subsequent auctions.

Mr. Wu voted in favour agreeing with the previous comments by Panel members, with nothing further to add.

The Technical Panel unanimously adopted the motion that the amendment submission warrants consideration.

Element 2:

Mr. Forsyth moved to vote on giving the matter high-priority status, allowing it to be addressed sufficiently in advance of the next DR auction in December 2019.

Mr. Bieler voted in favour of high-priority status on the basis that a significant amount of time had passed since the submission arrived in November. He said the matter should be expedited, particularly in light of Resolute's participation in the next DR auction.

Mr. Collins voted in favour of high-priority status, stating that clarification of market rules would remove ambiguity and ensure consistent treatment of market participants.

Mr. Dent voted in favour of high-priority status, stating that it was desirable to have as many participants as possible in the DR auction.

Mr. Forsyth voted in favour of high-priority status in order to allow Resolute to move forward.

Ms. Griffiths voted in favour of high-priority status in order to allow Resolute to prepare for the auction.

Mr. Lake voted in favour of high-priority status, stating that the more participants that compete, the better for the consumer. He said there were practical matters, such as control and metering systems, that would need to be in place prior to the December auction.

Mr. Lasek voted in favour of high-priority status with nothing further to add.

Mr. Samant voted in favour of high-priority status, stating that increased competition would drive down prices, and that this was long overdue.

Mr. Saunders voted in favour of high-priority status with nothing further to add.

Ms. Savage voted in favour of high-priority status so that the matter could be addressed sufficiently in advance of the December auction.

Mr. Urukov voted in favour of high-priority status with nothing further to add.

Mr. Wu in voted in favour of high-priority status with nothing further to add.

The Technical Panel unanimously adopted the motion that the amendment consideration be given high-priority status.

Element 3:

Mr. Bieler moved to vote that the Panel seek a broad range of stakeholder input over a two-week period ending February 21, and that the amendment submission be referred for discussion at the February 12 DRWG meeting.

Mr. Bieler voted in favour of seeking broad stakeholder input, stating that there could be implications for other participants and stakeholders with respect to the clarity the amendment was proposing. He said stakeholder and DRWG input would be needed because there may be impacts on a participant's ability to participate in the DR auction.

Mr. Collins voted in favour of seeking broad stakeholder input because broader circumstances require broader input on issues that the Panel may not be aware of.

Mr. Dent voted in favour of seeking broad stakeholder input.

Mr. Forsyth voted in favour of seeking broad stakeholder input because Resolute needs an opportunity to present its position at the DRWG meeting.

Ms. Griffiths voted in favour of seeking broad stakeholder input with nothing further to add.

Mr. Lake voted in favour of seeking broad stakeholder input because he expected there would be diverse views on this matter. What the Panel does should augment what the DRWG has already done.

Mr. Lasek voted in favour of seeking broad stakeholder input, stating that if there was a change in interpretation during the merger from OPA to IESO, there could be implications in other areas. The Panel needs to understand there is a set of procedures, and the working group of the day would need to be able to intervene and insist on proper protocol to prevent the system from being short-circuited.

Mr. Samant voted in favour of seeking broad stakeholder input, stating that it would be interesting to hear what the stakeholders and their competitors had to say, particularly on lowering prices through competition.

Mr. Saunders voted in favour of seeking broad stakeholder input, stating that he wanted to gain a better understanding of the impacts on all market participants.

Ms. Savage voted in favour of seeking broad stakeholder input with nothing further to add.

Mr. Urukov voted in favour of seeking broad stakeholder input, stating that the DRWG meeting was an appropriate forum to provide a technical perspective.

Mr. Wu voted in favour of seeking broad stakeholder input with nothing further to add.

The Technical Panel unanimously adopted the motion to seek broad stakeholder input on the amendment submission.

In conclusion, the Panel unanimously agreed that the amendment submission warranted consideration as a high priority item, and that the Panel would seek broad stakeholder input by inviting written submissions for a two-week period ending February 21. The matter will be referred for discussion at the February 12, 2019 DWRG meeting, where Resolute will be invited to make a presentation.

Further Business:

Mr. Collins asked if there would be an opportunity for IESO staff to identify the financial impact to end users or ratepayers of the amendment decisions, stating that what is fair to the market but unfair to ratepayers must be weighed. He said there may be some urgency in starting this process.

Ms. Savage said the Panel should explore financial impacts with the DRWG, as well, so that it is not up to the IESO alone to come up with an assessment.

With no other business to discuss, the meeting adjourned at 10:06 AM.

Action Item Summary			
Date	Action	Status	Comments
Jan. 29, 2019	In camera meeting to discuss the process for the market rule amendment proposed by Resolute.	Closed	See Technical Panel memo – Feb 5, 2019
Feb. 6, 2019	The Panel will seek broad stakeholder input on the amendment submission over a two-week period ending February 21. The matter will be referred for discussion at the February 12 meeting of the DRWG.	Open	

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Independent Electricity System Operator

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Toronto, ON M5H 1T1
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www.ieso.ca

Memorandum

To: Technical Panel
From: Jessica Savage
Date: February 5, 2019
Re: *MR-00437: Demand Response – Registration and Metering Requirement*

At the January 29, 2019 Technical Panel meeting, the Technical Panel discussed procedural matters associated with amendment submission MR-00437-Q00, submitted on behalf of Resolute FP Canada (“Resolute”). Resolute’s external counsel was provided the opportunity to speak to its concerns as outlined in its letters dated December 4, 2018, December 19, 2018, and January 23, 2019¹, respectively. At the conclusion of the meeting, Technical Panel members asked for an in-camera session to discuss the issue further.

The in-camera discussion for Technical Panel members was held on January 31, 2019 and all Technical Panel members participated, except for the IESO Chair. The purpose of this memo is to summarize the Technical Panel’s preliminary view on next steps as discussed during the in-camera session.

At the February 6, 2019 Technical Panel meeting, Technical Panel members will be asked whether they wish to proceed in accordance with the preliminary view discussed on January 31 and as outlined below.

Technical Panel Preliminary View – Warrants Consideration

The Technical Panel supports a determination that the amendment submission from Resolute warrants consideration as it identifies ambiguity or confusion within the market rules that cause interpretation confusion and leads to poor coordination of implementation or to future disputes².

¹ The letters submitted on behalf of Resolute are published on the IESO website at <http://www.ieso.ca/Sector-Participants/Engagement-Initiatives/Technical-Panel/Meetings-and-Materials>

² Refer to Market Manual 2.3: Market Rule Amendment Procedure, Appendix B - Criteria for Amendment Submission Consideration and Priority at <http://www.ieso.ca/-/media/Files/IESO/Document-Library/Market-Rules-and-Manuals-Library/market-manuals/market-administration/ma-MarketRuleAmendProcedure.pdf?la=en>

Technical Panel Preliminary View – Priority

The Technical Panel supports assigning a high priority to the consideration/development of the proposed changes such that the matter is addressed sufficiently in advance of the next Demand Response Auction scheduled for December 2019.

Technical Panel Preliminary View – Request for Stakeholder Comments

The Technical Panel wishes to invite market participants and other interested persons to make written submissions to the Technical Panel concerning the amendment submission. The comment period will be for a two-week period, ending on February 21, 2019. In addition, the Technical Panel requests that this amendment submission be discussed at the Demand Response Working Group (DRWG) meeting on February 12, 2019 and that Resolute be invited to present to the DRWG at that meeting.

Next Steps

At the March 5, 2019 Technical Panel meeting, the Technical Panel will review any written submissions received during the 2-week comment period and IESO staff will provide a summary of the February 12th DRWG discussion. Resolute will also be invited to make submissions at the March 5th Technical Panel meeting and IESO staff will also have the opportunity to articulate its position at that time.

Regards,

Jessica Savage
Director, Corporate and Regulatory Affairs
IESO Representative on Technical Panel

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Technical Panel Meeting Agenda

Date: March 5, 2019	Time: 9:00 am to 11:20 am
Meeting Chair and Facilitator:	Mike Lyle, Vice President, Legal Resources and Corporate Governance, IESO
If you have any questions, or to register as an observer, please email IESO Engagement at: engagement@ieso.ca	

Time	Agenda Item	Responsible Party	Expected Actions
9:00 am (10 mins)	Item 1: Introduction and Administration • Attendance & Chair's Remarks • Review of Agenda • Review of Jan 29 and Feb 6 Minutes	Mike Lyle	Information Approval of Agenda Approval of Minutes
9:10 am (5 min)	Item 2: Engagement Update	Jason Grbavac	Information
9:15 am (45 min)	Item 3: IESO Presentation: Resolute Market Rule Amendment Submission • Cover Memo • Presentation	Tam Wagner	Information
10:00 am (45 min)	Item 4: Resolute Presentation: Market Rule Amendment Submission • Presentation • IESO/Resolute email communication, 2/26/2019 • TP Presentation on DR Auction, January 2015 • TP Presentation on DR Auction, June 2015 • Market Rule Amendment Proposal, August 2015	Peter Giardetti (Resolute) and George Vegh (McCarthy)	Information
10:45 am (30 min)	Item 5: Q&A on Agenda Items 3 and 4	Mike Lyle	TP Discussion and Information
11:15 am (5 min)	Other Business	Mike Lyle	Information
11:20 am	Adjourn	Mike Lyle	

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IESO Technical Panel Meeting

Minutes of Meeting

Date held: March 5, 2019		Time held: 9:00 am	Location held: IESO Office, Toronto
Invited/Attended	Sector Representation		Attended; Regrets
Robert Bieler	Consumer		Present
David Brown	Ontario Energy Board		Present
Ron Collins	Energy Related Businesses and Services		Present
David Dent	Other Market Participant		Present
Dave Forsyth	Consumer		Present
Sarah Griffiths	Other Market Participant		Present
Robert Lake	Residential Consumer		Present
Phil Lasek	Industrial Consumer		Regrets
Robert Reinmuller	Transmitter		Regrets
Sushil Samant	Generator		Present
Joe Saunders	Distributor		Present
Jessica Savage	IESO		Present
Vlad Urukov	Generator		Present
Julien Wu	Wholesaler		Present
Michael Lyle	Chair		Present
Observers / Presenters			
Jo Chung	IESO		Present
Robert Doyle	IESO		Present
Tam Wagner	IESO		Present
Richard Zaworski	IESO		Present
Cara Degelman	Resolute Forest Products		
Peter Giardetti	Resolute Forest Products		
Tony Ruberto	Resolute Forest Products		
George Vegh	McCarthy Tetrault		

Secretariat		
Reena Goyal	IESO	Present
Jason Grbavac	IESO	Present
Prepared by: Mitchell Beer / Smarter Shift Inc.		

Agenda Item 1: Introduction and Administration

The Chair welcomed Robert Reinmuller, Director, Transmission System Planning at Hydro One Networks, as the newest member of the Technical Panel (TP), representing the market participant transmitter constituency. He explained that Messrs. Reinmuller and Lasek would be absent for the day's meeting, then introduced the four guests from Resolute Forest Products and several IESO staff in attendance.

Agenda:

There were no revisions to the agenda.

Minutes and Action Items:

The Panel reviewed the minutes from the January 29 and February 6 meetings. Mr. Lake proposed a minor amendment to the February 6 draft, adding the word "and" to a reference to metering. The minutes were approved as amended.

Chair's Remarks:

With the IESO preparing for the next phase of Market Renewal, the Chair reported that Rob Doyle had been engaged to assemble a small team to deal with all rule amendments not related to the market renewal program.

The Chair reviewed the day's agenda, noting that it consisted of an IESO staff overview of Resolute Forest Products' market rule amendment submission, a presentation from Resolute, followed by an opportunity for Technical Panel members and other meeting participants to comment and ask questions. He said discussion of the two presentations would be confined to questions or comments from Panel members, with an opportunity for input from anyone present under Agenda Item 5.

The Chair noted the staff proposal that the matter be referred back to the Demand Response Working Group (DRWG) for further consideration, with the expectation that it would come back to Technical Panel in June. At that point, if the Panel decided to proceed further with the topic, it would vote on a Market Rule amendment in August for submission to the IESO Board later that month, in time for implementation for the next demand response auction in December.

George Vegh, said the Chair had characterized the IESO staff proposal to be what would happen during the current TP meeting, and noted that Resolute was proposing a different approach. The Chair clarified for Mr. Vegh that he said he had characterized the staff presentation as a proposal, noting that Resolute would have an opportunity to provide its perspective.

Agenda Item 2: Engagement Update

Jason Grbavac, IESO, recapped a busy month of engagement activities since the Panel's last meeting in February. He thanked stakeholders for their meeting participation and hard work.

The Market Renewal Working Group held its final meeting February 28. Mr. Grbavac said the working group was instrumental in providing advice and guidance on the market renewal process, culminating in the release of high-level designs for the energy stream late last year, and for the incremental capacity auction by the end of March. He thanked the Technical Panel members who also served on the MRWG, Julien Wu, Sarah Griffiths, and Sushil Samant, along with all the other stakeholders who participated in that phase of the market renewal process.

Mr. Grbavac said stakeholders had completed their review of all three high-level designs in the energy stream. IESO is now reviewing their feedback, and expects to post a response document in a few weeks. The high-level design for the incremental capacity auction will be subject to the same review process. Both streams will subsequently enter a detailed design phase that will involve internal review and engagement with external stakeholders.

There were no questions on the first part of the presentation.

Mr. Grbavac noted that Panel members had questions about the document the IESO previously used for engagement updates. The IESO has undertaken a review and redesign of its Market Renewal engagement page, with the intent of making it a more valuable resource for stakeholders looking for updates on the process, whether they're interested in high-level status or deeper details. He said the Secretariat will look forward to Panel members' comments on the redesign.

Ms. Savage said the IESO intended to focus its updates to Technical Panel on engagements that will likely result in proposed amendments to the market rules.

Mr. Lake asked whether the Minister of Energy and his staff are kept posted on the IESO's work. Ms. Savage said Ministry representatives are invited to Stakeholder Advisory Committee meetings.

Agenda Item 3: IESO Presentation: Resolute Market Rule Amendment Submission

Tam Wagner, IESO recapped the Technical Panel's February 6 meeting on the Resolute submission, as well as the subsequent meeting of the Demand Response Working Group (DRWG). She spoke to the technical implications of the submission and the IESO's position in response, suggesting based on internal review that the proposed amendment was not a clarification of the existing market rule, but rather a design change affecting the demand

response auction. That conclusion drove analysis of whether such a change would be desirable, and whether the language of the proposed amendment would achieve the intended outcome.

The IESO presentation :

- Does not support the Market Rule amendment submission in its current form due to its technical implications;
- Acknowledges that the availability to provide injections into the IESO grid could potentially have capacity value and could benefit ratepayers, and therefore would recommend further consideration by the DRWG;
- Believes further analysis is required to appropriately capture the broader impact of the proposed amendment and any unintended consequences of any design change.

Mr. Sanders asked whether the IESO was recommending against recognizing behind-the-meter generation fed back into the grid if providers are already compensated for that capacity under other programs. Ms. Wagner said that was the case from the IESO's perspective.

When Ms. Wagner presented a portrayal (slide 7) of a demand response activation, Mr. Urukov asked whether the graph contained actual or illustrative data. Ms. Wagner said the graph was intended as an illustration for non-dispatchable facilities, noting that all dispatchable facilities are offered through the IESO market.

A subsequent schematic (slide 8) showed the load configuration at Resolute's Thunder Bay facility, combining a non-dispatchable load and an onsite cogeneration plant. Ms. Griffiths asked whether those facilities have two separate registrations, and Ms. Wagner said they do. In response to a question from Mr. Forsyth, she clarified that the current site configuration contains a non-IESO revenue meter.

Ms. Wagner explained that the IESO's assessment of the technical implications of the Resolute proposal were based on withdrawals from the connection point for the IESO-controlled grid (ICG), which IESO calculates at 30 megawatts and Resolute places at 60 MW, including the cogeneration plant. Mr. Urukov asked whether all the capacity involved is drawn from Channel 1 of the IESO revenue meter. Richard Zaworski, IESO, confirmed that only Channel 1 of the IESO revenue meter is associated with non-dispatchable load.

Ms. Wagner presented a scenario (slide 10) in which the proposed amendment would increase the facility's total capacity from 30 to 55 MW and said recognizing self-generation for this purpose would constitute a change to the Market Rules. She acknowledged that the 25-MW injection in this scenario would represent a benefit to the IESO-controlled grid.

In a second scenario based on the proposed amendment (slide 11), using 60 MW as the baseline for the facility, the net capacity supplied through a demand response activation would be 25 MW, producing the risk of overstating the capacity delivered to the IESO-controlled grid. Mr. Forsyth said that would be because the IESO was only looking at one channel of the meter. Ms. Wagner said both channels would only show withdrawals under the scenario.

Mr. Sanders said the baseline assumption, based on the highest 15 to 20 days of data, would be 30 MW from the generator and 30 MW from the IESO grid. Ms. Wagner said that would be the case under the proposed amendment, but under the current Market Rules the focus would be on the 30 MW at the ICG connecting point. Mr. Sanders asked whether the concern was that Resolute could be recognized for 55 MW of demand response at a time when it was delivering no resource to the grid. Ms. Wagner said it was.

Ms. Wagner's third scenario (slide 12) showed the facility delivering 0 MW of capacity under Resolute's proposal, rather than the 30 MW that is recognized under the current Market Rules, resulting in an understatement of DR capacity delivered. The ultimate concern, she said, was the potential for different market participants with the same facility configuration but different capacities to receive different outcomes.

Mr. Lake asked whether the proposal was a back door to incremental capacity. Ms. Wagner said the IESO sees demand response as a reduction of withdrawal from the grid. IESO recognizes the benefit of incremental capacity injections to the grid, she added, and is pursuing that potential through the transitional capacity auction.

Mr. Urukov asked whether the proposed amendment captured the change at the load. Ms. Wagner said the proposal addressed the load at the facility rather than the net load, a significant distinction from an IESO perspective. Under current Market Rules, she added there is an opportunity to acknowledge the load at the facility, but the demand response auction specifically covers the withdrawal aspect, while any injection would fall under the energy market. So from the IESO's perspective, mechanisms to acknowledge the full capacity are already available under the existing Market Rules, leading to a potential business decision on how the facility's configuration would be reflected.

Mr. Sanders asked how a facility's capacity can be considered behind the meter under one program and in front of the meter under another. Ms. Wagner said any facility's treatment under the Market Rules must be consistent with others, to ensure fair treatment for all.

Mr. Lake asked how the proposal would treat a large customer with generation in a separate location that wheeled the power through to a registered site, and how different that would be from the Resolute proposal. Ms. Wagner said that scenario could be a consequence of the proposed amendment, and one the IESO would have to assess to ensure it was both intentional and appropriate. She said the IESO had developed and explored the three scenarios she had presented, realizing that other potential complications could emerge. That was one reason the IESO recommended referring the matter back to the DRWG for further review.

Ms. Griffiths said she had found the presentation very informative, adding that she wished it had been available at the most recent DRWG meeting. She said the more limited information available at that time may have explained why the IESO received no comments on the proposed amendment in the two weeks between meetings.

Ms. Griffiths asked whether the IESO factors the 30 MW of self-generation at the Resolute facility into its resource adequacy calculations. Later in the meeting, Ms. Wagner confirmed that it does.

Ms. Griffiths asked whether the cogeneration facility had any capacity contract of any kind in place. Ms. Wagner suggested that Resolute representatives could answer the question.

Mr. Lake asked whether, from a probability point of view, the grid would need demand response and incremental generation capacity at the same time in the event of a shortage. From a customer point of view, he said, he would be inclined to focus on incremental generation first, rather than forcing a factory to reduce load. Ms. Wagner said the answer would depend on the severity of the shortfall and the resources available. She added that incremental capacity was currently subject to stakeholder engagement, and the resulting implementation is still to be determined.

Ms. Griffiths said a demand response provider would expect to meet the requirement when it could offer a less expensive resource than the next available market participant. Mr. Sanders asked whether the same sequence would apply to voltage reductions. Ms. Savage said the IESO attempts to respond to shortages in priority order, but every situation is different and some circumstances require one or more simultaneous actions.

Ms. Griffiths asked whether IESO qualified the existing meter configuration at Resolute in the 2015, 2016, and 2017 auctions. Ms. Wagner said those auction results are currently under dispute. Ms. Griffiths asked whether the configuration would qualify, and Mr. Zaworski replied that the registration process includes qualification.

Ms. Griffiths asked whether the other participants that received obligations as a result of the 2015 auction were required to specify how they would provide their megawatts. Mr. Zaworski stated that, by registering physical resources, those participants would have indicated that they were physical participants with IESO revenue meters. Ms. Griffiths asked how that practice would apply to aggregators who assemble a number of different load sources and meet system obligations through a combination of load reductions and self-generation. Mr. Zaworski said auction participants have the option of providing a plan for how they'll meet a call for demand response, but no mandatory requirement.

Ms. Griffiths asked whether that meant the IESO wouldn't have known how Resolute planned to meet its obligation when it qualified in December 2015. Mr. Zaworski said the facility qualified for 55 MW of demand response, based on available metering data. The company's actual ability to deliver the capacity was only tested with an activation, and that was when it became clear that they were actually capable of delivering 30 MW.

Mr. Samant asked whether the IESO ever conducts capacity tests. Mr. Zaworski said it does, and confirmed that was when the gap was identified at Resolute.

Mr. Lake recalled an earlier system configuration in which interruptible power was divided in two categories, and consumers ended up subsidizing big industrial users that were unwilling or unable to respond when the system called for demand response. He asked whether the IESO's demand response contract calls for providers to be dropped from the program if they fail to respond once or twice. Mr. Zaworski said the contract contains pertinent provisions regarding participation if there are reliability concerns.

Mr. Samant asked whether the Market Manuals include specifications for input channels. Mr. Zaworski said provisions are in place for physical contributors based on registered, non-dispatchable loads that, by their nature, do not have injections. The Market Manuals provide for virtual resources to be registered by aggregators.

In reply to questions from Messrs. Samant and Wu, Mr. Zaworski said that a behind-the-meter generator can only be used to displace load, and any injections beyond load displacement are not compensated under the demand response program. He added that acknowledging a physical resource means identifying an IESO revenue meter with which it is associated.

Ms. Savage said it's up to market participants to tell the IESO what programs they expect to qualify for. While providers can decide whether to submit detailed plans, non-performance is addressed through a host of charges on the back end of the program. She added that an expanded set of up-front qualification requirements will be one feature as the incremental capacity auction evolves. But if a market participant fails to meet requirements, the IESO already has the scope to revisit its qualifications in future demand response auctions.

In reply to a question from Mr. Wu, Mr. Zaworski said the current situation arose when Resolute had its first test activation. Mr. Wu asked whether any other qualified providers had failed to meet a requirement. Mr. Zaworski said there were no other cases where the IESO's interpretation of the Market Rules was being challenged. He explained that test activations are conducted in a time series, and failures are not determined based on interpretations of the baseline but by the amount of demand response delivered. They are judged by performance.

Mr. Urukov asked whether the explicit reference to Channel 1 was based on Market Manual 12. Mr. Zaworski said there is no explicit channel reference for physical resources. The provision for virtual resources appears in Section 6.3, which covers processing of metering data to ensure it is treated in the same manner as a physical resource.

Mr. Collins asked whether the issue was that the demand response program doesn't pay for injections, and Resolute didn't find out until later on in the process that it couldn't inject the amount it originally offered. Ms. Wagner said the determination is based on activity at the IESO connection point and whether the behind-the-meter generator is being used to displace load. She noted that the Market Rule provides for withdrawals from the grid, so that's what the IESO looks for at the connection point.

From that starting point, she said the IESO is concerned about unintended consequences of the proposed Market Rule amendment, given that three different scenarios provided three different outcomes that were all consistent with the new language. She expressed concern that the proposal could represent a fundamental change in the design of the demand response auction.

Mr. Forsyth asked whether the Market Rules could be adjusted in a way that addressed Resolute's concerns while avoiding unintended consequences. Ms. Wagner said that determination would require further analysis and discussion with stakeholders.

The Chair suggested a 10-minute break between submissions.

Agenda Item 4: Resolute Presentation: Market Rule Amendment Submission

Mr. Vegh and Peter Giardetti, Resolute Forest Products, discussed the current configuration at the company's Thunder Bay facility, its functioning between 2013 and 2018, and the proposed Market Rule amendment. They said the purpose of the proposal was to restore the Market Rule as it was originally established by the Technical Panel and supported by IESO staff, with the intent of transitioning contracts from the earlier capacity-based demand response auction into the current set of rules. They suggested that Resolute's two-meter configuration had been reviewed and accepted by the IESO, and there has been no rule change to support what the company interpreted as a change in the staff's position in 2017.

Mr. Samant asked whether Resolute had received an activation in 2016. Mr. Giardetti said it had not.

Ms. Griffiths asked how the IESO had reviewed Resolute's qualification under the auction. Mr. Giardetti said the company had submitted data and configuration information during the registration process. He expressed Resolute's position that the IESO changed its interpretation of the rules in June 2017, and the company wasn't notified until August 2017.

Ms. Savage asked Resolute to elaborate on the events leading up to August 2017. Mr. Giardetti said a test activation took place in April 2017, and when Resolute's subsequent bill indicated it had failed the test, the company couldn't figure out why until August 2017, when it learned that the IESO had changed its interpretation of the facility's baseline from 55 to 30 MW. He reiterated that Resolute was aware of no market rule that had driven the change, adding that the company originally defined the capacity as demand response on instructions from the Ontario Power Authority.

Mr. Giardetti traced the shifts in Resolute's operations during the April 2017 activation, expressing the company's position that the net result was a 55-MW reduction in load—30 from the demand response meter, 25 through an injection within its own system—not an increase in generation. The IESO's interpretation only recognized the 30 MW on the withdrawal channel, he said.

Mr. Sanders asked who was responsible for reading the meter. Mr. Giardetti said a third party, Thunder Bay Hydro, played that role under past programs. Then, until August 2017, he said the company assumed the IESO was doing the math.

Mr. Sanders asked how Resolute ties the timelines together between the revenue in the IESO meter and its own. Tony Ruberto, Resolute, said the data is read at five-minute intervals, and the two meters are aligned. In reply to a question from Ms. Griffiths, Mr. Giardetti said he wasn't sure whether the IESO has access to the demand response revenue meter. Mr. Zaworski said the IESO only has visibility on its own meter, where it read a demand response withdrawal of 30 megawatts. Ms. Griffiths asked whether the IESO performed an audit, and Mr. Zaworski said there are no provisions to register the second non-IESO revenue meter under the Market Rules for demand response.

Ms. Griffiths asked whether that meant the IESO was only reading 30 MW of demand response capacity for 2016 and 2017. Mr. Zaworski said the IESO meter registers the net facility load, which is greater than 30 MW. But there is no way to determine whether that capacity can be

delivered without a test activation, based on historical performance over the previous highest 15 of 20 days.

Mr. Giardetti said the IESO could indeed see both channels for 2016 and 2017, and should have been able to view the difference between the withdrawals and injections. Mr. Ruberto said the meter was registered and certified under DR2 and DR3, and under CBDR before that. So it was visible to the IESO, he said; staff just weren't reading it as part of the demand response auction.

Mr. Samant asked whether there was an associate relationship on the meter. Mr. Ruberto said it was tied to Resolute's meter service provider.

Mr. Zaworski said the IESO's obligation in settling the physical market is related to its own revenue meter. Even if there was a process by which an additional meter was visible, the IESO would have to determine under what provisions in the Market Rules it would be required to see it.

In reply to questions from Ms. Griffiths, Mr. Zaworski said the IESO knew the second meter existed, and all parties agreed that it was associated with the generation load and registered separately. Mr. Giardetti said the meter was originally installed on instructions from the OPA, to separate Resolute's generation from demand response under CBDR and DR2.

Mr. Urukov asked how Resolute had applied the passages of the Market Manuals describing how proposed demand reductions should be achieved. Mr. Giardetti said Mr. Vegh would address that question.

Ms. Griffiths asked whether Resolute has a separate capacity contract for the generator, and Mr. Giardetti replied that a power purchase agreement (PPA) is in effect. Mr. Urukov asked how the revenue meter for that agreement is registered with the IESO. Mr. Ruberto said metering data is submitted daily, reinforced by monthly filings. Mr. Giardetti said the PPA involves combined heat and power, so there is a requirement and a complex process for showing that energy is being directed back into the paper mill. The PPA was originally signed with OPA, then transferred to the IESO, and it is still in effect.

Mr. Collins asked whether an injection into the grid would violate the PPA, and Mr. Giardetti said it would not: the agreement requires a certain percentage of useful heat output to be reapplied back into the mill, but not 100%. The condensing turbine in the cogeneration plant produces hot water as well as electricity, he explained, so the hot water can be used in the plant to either generate steam or displace energy. In reply to a follow-up question from Mr. Collins, Messrs. Giardetti and Ruberto reiterated that the company is only required to deploy a percentage of the useful energy locally.

Mr. Collins asked whether an injection would actually fulfill the contract more effectively by delivering electricity back to the grid. Mr. Giardetti said the contract addresses generation minus the station service load, with a separate revenue meter tracking net energy. From that perspective, he said there are actually two separate contracts involved.

Ms. Griffiths said she had read that there would be no issue if Resolute were incorporated in the distribution system, and that the company's position would be permissible if it were not

directly connected to the grid. Messrs. Giardetti and Vegh confirmed that was Resolute's view. Mr. Zaworski asked Ms. Griffiths to clarify the question, and she asked whether the company would be in violation of the demand response auction if it had connected through the Thunder Bay Hydro system. Mr. Zaworski replied that, had the facility been connected through the distribution system, and had an aggregator selected it as a contributor to its demand response portfolio, only the withdrawal quantity would have been eligible under the demand response auction.

In reply to a question from Mr. Sanders, Messrs. Giardetti and Ruberto said the CHP system is equipped with revenue-grade meters, powered off the company's PPA. Mr. Giardetti added that the meter captures the reduction in load that occurs when the generator is operating, enabling the facility to shift from withdrawing to injecting. On that basis, the company's position is that it is not violating the terms of the demand response program.

In reply to a question from Mr. Forsyth, IESO staff said Resolute would qualify if it were connected to the IESO grid both directly and separately. Mr. Forsyth asked what the difference would be, apart from the electrons flowing down different cables. Ms. Wagner said the capacity supplied on the second meter would stand outside the demand response auction and belong in the energy market.

Mr. Forsyth said the issues raised by this case had never come up through the evolution of the demand response auction, and asked whether they represented an oversight that should be corrected. Mr. Zaworski said the IESO's stakeholder engagement on the demand response auction heard a number of questions about the way loads are recognized, some of them similar though not identical to the situation at Resolute, and both the questions and the IESO's answers are on record. One of the questions from participants had to do with scenarios where there were various loads behind a generator. The IESO responded at the time that participants would have to register those loads independently of the generator in the physical market.

Mr. Urukov asked the Resolute representatives to respond to the third of the scenarios Ms. Wagner had presented. Mr. Giardetti said Resolute's position was that its demand response obligation served to reduce load. In the scenario in question, the hypothetical provider was increasing generation, which he said Resolute was not doing. While the IESO is currently considering a scenario under which the IESO might in future credit providers for delivering new supply, he said Resolute was only asking for recognition of its contribution to reducing load.

Mr. Forsyth said it was ironic that many market participants now receive credit for displacing load with battery storage, as long as they aren't injecting new supply into the system. Mr. Zaworski said those credits are possible under the terms of the demand response auction.

Ms. Griffiths commented that Resolute had faced a derate of about 50%, with no changes to the Market Rules or the Market Manuals, after participating in the demand response auction for at least two years, and in the programs that preceded it. Mr. Ruberto said the auction occurred in December 2015 and took effect in May 2016. In reply to a question from Ms. Griffiths, Mr. Giardetti said Thunder Bay Hydro would absolutely have been aware of Resolute's previous arrangement with the OPA, since the facility would have gone through the meter installation

process. Ms. Savage asked whether Resolute considered the demand response auction identical to the OPA programs in which it had previously participated; Mr. Giardetti said no, since the DRA is an auction.

Mr. Dent asked whether Resolute had any concern that its proposed amendment might be used or interpreted differently by market participants with similar configurations but different assets, and whether the situation warranted a closer look to prevent unintended consequences. Mr. Giardetti said any new registrant would have to submit a plan to the IESO, which would then have the option of reviewing and either accepting or rejecting it.

The Chair noted that the meeting was approaching its original end-time and observed that participants seemed willing to extend the meeting beyond its scheduled time. Technical Panel members agreed to continue discussions.

Mr. Vegh reviewed past IESO presentations on the demand response auction, stating that the purpose of his submission was to restore the Market Rule to the original intent that staff communicated to the Technical Panel on January 20, 2015. He expressed Resolute's view that, as the guardian of the Market Rules, the Technical Panel must uphold the integrity of a process in which market participants have invested a lot of money, on the expectation that decisions will be based on the rules. The standard process, he said, is for staff to put forward an amendment to the Market Rules if they see a gap in the way the existing provisions are being implemented. He added that the IESO's rules call for the Panel to vote on the proposed amendment, rather than referring it back to the DRWG.

Agenda Item 5: Q&A on Agenda Items 3 and 4

The Chair invited further discussion to determine next steps, adding that Resolute's characterization of the staff proposal was not in accordance with the staff memo to the Technical Panel. The intent was to refer it back to the DRWG, with the expectation that it would come back to the Panel for further consideration no later than June 29 and a vote in August.

Mr. Lake cited the operating terms in Market Manual 7.6, addressing measures initiated by the IESO to influence the timing of customer demand. He noted that the manual said nothing about injections into the system, and asked how Resolute's position was consistent with that definition. Mr. Vegh said he didn't have immediate access to the definition, but asserted that nothing in the proposed amendment referred to activation by injection. He added that the proposal focused on the Market Rules, not the Manuals, which he said are prepared by staff without input or oversight from the Technical Panel.

Mr. Urukov said the proposed amendment as drafted recognized the existence of a separate meter, but that the channel is defined under the Market Rules. Given the reference to Channel 1 he said he wasn't clear whether the amendment would produce a consistent solution. Mr. Vegh said the inconsistency was that the IESO's requirements have changed, given that the configuration at the Resolute facility was permitted when the demand response auction was conducted. He added that any decision to disqualify an activity under the demand response rules should be made explicitly via the Market Rules, not treated as a technical matter related to meter configuration. He expressed Resolute's view that the Market Rules set out the purpose,

the meter configuration is a means to that end, and the role of the Market Manuals is to implement and facilitate the rules, not to add supplementary requirements.

Mr. Sanders said it appeared that Resolute could be taking advantage of two programs simultaneously. He asked whether there were any provisions that, in Resolute's view, either prevented it from doing so or allowed it to. Mr. Vegh said Resolute would be open to "tweaking" the proposed amendment in order to avoid gaming or double-dipping, stating that he hadn't appreciated when the language was drafted that that would be a driving concern. He added that, if this is the IESO's position in relation to demand response, it should be applied consistently across the full range of rules, programs, and incentives, without any one market participant being singled out.

Mr. Samant asked for confirmation that the intent was to resolve the issue in time for the December 2019 demand response auction, not to set restitution for the 2018 auction. Mr. Vegh said the Technical Panel only has the ability to amend the Market Rules.

Mr. Samant asked whether the DRWG's initial response to the amendment, and the lack of stakeholder comment, might have been driven by the absence of a full IESO presentation at that time. Mr. Vegh said he couldn't speak to the IESO's position at that meeting, but said that the record available at that time was no reason to go back to the DRWG now.

Mr. Dent asked IESO staff whether they had any work in progress that would address the concern and recognize the potential system benefit of injecting incremental capacity. Ms. Wagner said the results of an upcoming stakeholder engagement on the transitional capacity auction could enhance the December 2019 demand response auction, and that any proposed Market Rule amendments on the transitional capacity auction would be brought back for Technical Panel review and assessment. A future enhancement could acknowledge injections and allow uncontracted capacity to participate in the transitional capacity auction in 2020. But in the first phase, she said the focus will be on uncontracted generation and recognizing the value that injections provide.

Mr. Vegh said that scenario would not apply to Resolute's configuration, where injections are treated as equivalent to demand response. He said demand response as it is currently configured has issues to address, the new considerations now being introduced are complex, the timeline for addressing them is ambitious, and they have nothing to do with what Resolute is proposing.

Mr. Dent asked whether Resolute would be affected by the potential rule changes Ms. Wagner had described. Mr. Vegh said Resolute would participate in the broader review if the IESO first restored the existing rule to what the company sees as its original interpretation. The auction is bound to be changed and reformed over time, he added, but Resolute should not have to wait for that process to unfold before the system is restored to what the company sees as the configuration the Technical Panel approved in 2015. Once that work is complete, he said it will be appropriate for the IESO to raise broader issues in the transition to the incremental capacity auction, with proper notice under the Market Rules, so that Resolute and any other market participants can participate in the process.

Mr. Urukov asked whether the upcoming stakeholder engagement would cover both dispatchable and non-dispatchable resources. Ms. Wagner noted that an engagement plan was in place to address the two phases of the transitional capacity auction. Mr. Giardetti said changes to the incremental capacity auction would be applied as contracts expire, and Resolute's PPA runs until 2023.

Mr. Dent asked whether the IESO's proposed rule changes would address the problem Resolute was raising. Mr. Vegh said he couldn't say until he saw the actual rule change.

Ms. Griffiths asked whether Resolute would advocate that its meter configuration be allowed under the transitional capacity auction, under rules that placed demand response in competition with injection. In that event, she said, other demand response participants might take the position that the treatment of behind-the-meter injection and non-injection resources should be a priority for the TCA. Mr. Vegh said Resolute's position under that hypothetical scenario would be that the status quo should be maintained, but that the question should be decided through the standard process for amending the Market Rules. If Resolute didn't like the result of that process, it could respond through whatever avenues were available, but would acknowledge that the amendment had gone through the appropriate process and airing. The key point embedded in the question, he added, was that Ms. Griffiths was describing a formal Market Rule amendment process.

Ms. Griffiths recalled asking at the DRWG meeting whether the IESO would come forward with an alternate amendment to the Market Rules if it agreed that Resolute's configuration should exist under the demand response auction. She said the IESO responded at the time that staff had not gone down that path, and was not planning to at that time. She asked again whether the existing demand response auction could serve as a mechanism for Resolute to maintain a status quo that has been in place since 2013, in a way that prevented the consequences Ms. Wagner had presented. Ms. Wagner said it would be difficult to put forward language that accommodated Resolute's request and addressed unwanted consequences, foreseen or not.

Ms. Savage recapped the discussion so far, recalling the Demand Response Working Group's extensive stakeholder engagement in 2014 and 2015 and the training session that was subsequently organized for stakeholders.

Mr. Zaworski returned to his earlier statement that the stakeholder engagement had covered circumstances that were similar but not identical to Resolute's, adding that a staff presentation to the stakeholdering group had highlighted the facility registration process under the demand response auction. He said the presentation laid out two avenues to register facilities, physical or virtual. In reply to a question about whether an existing load could participate in the demand response auction, the IESO advised at the time that an already-metered facility would first have to register its load in an IESO-administered market. That communication was sent to all stakeholders, Mr. Zaworski said.

Cara Degelman, Resolute Forest Products, asked for the date of the presentation. Mr. Zaworski said it took place on July 23, 2015. He recalled that the IESO had received multiple questions from stakeholders about embedded loads participating in the demand response auction, held a

stakeholder session and participated in further discussions on the topic, and did inform stakeholders of its position under the Market Rules.

Mr. Zaworski projected a slide from that presentation, which Ms. Savage characterized as an explanation of how a load must be metered to participate in the demand response auction. Responding to Resolute's position that IESO staff changed their minds on the interpretation of the rules in 2017, she said the July 2015 presentation supported the IESO's view that it was implementing the rules as they stand, and that the proposed amendment therefore recommended a design change.

Ms. Griffiths asked why that point wasn't included in the staff presentation. Ms. Savage said she hadn't anticipated the contention that the IESO had never discussed the matter with stakeholders, and saw the need to demonstrate that the discussion was on the record.

Mr. Vegh expressed surprise at the inclusion of the July 2015 reference in the discussion and said he did not accept the conclusion that the presentation constituted notice that Resolute's current configuration was not permitted. He questioned the process by which the IESO had requested and provided documentation in advance of the Technical Panel meeting and suggested a lack of fairness in pointing to one stakeholder communication to refute the company's position without advance notice.

Ms. Savage said her intention was not to be unfair, but to address the question of whether the proposed amendment constituted a change in design. Mr. Vegh reiterated his position that the IESO's treatment of the Thunder Bay facility represented a change in the Market Rule.

Mr. Urukov asked how Resolute had explained its load reduction to the IESO, and what comments it had received back when it explained its configuration. Mr. Vegh agreed to supply that documentation to the Technical Panel. Mr. Urukov underscored that the IESO "notionally accepted" the megawatts from Resolute, and asked what it had communicated back to the company. Ms. Wagner agreed to supply that documentation.

Mr. Bieler asked whether the issue should be brought forward to other demand response participants with a request that they give it their consideration, given that the initial call for stakeholder feedback received no responses. Without their input, he said, it will be difficult to anticipate the possible impacts of the proposed amendment, or to know whether other market participants have configurations similar to Resolute's. He also asked Technical Panel members serving on the DRWG whether the reference back to the working group was useful, given the Panel's February 6 decision to expedite consideration of the proposed amendment.

Mr. Samant said the DRWG meeting received the presentation from Resolute, but IESO staff had not presented its position before today. Mr. Sanders said he'd understood the proposed amendment would be brought back to this meeting in order to expedite it. Mr. Bieler said he'd hoped to hear perspectives from the DRWG and other market participants. Mr. Samant said Resolute had provided its position.

Ms. Griffiths said she'd spoken to numerous companies in her sector following the DRWG meeting, and the main question back was how the IESO could have been unaware of Resolute's configuration. Ms. Griffiths' sector colleagues are nervous at the prospect that a change in

interpretation can trigger a 50% reduction in the obligation for a resource that first entered the system under the OPA demand response program. The market participants in Ms. Griffiths' contact group had no suggestions on configuration, or on the range of resources that should be recognized under the demand response auction—and they didn't see that as the issue. On that basis, she said companies made a deliberate decision not to comment on the DRWG presentation.

Mr. Bieler said he could understand Resolute's position, but added that he couldn't see a solution that would be fair to the company while upholding the intent of the Market Rules. He suggested further deliberation, in the form of an in-camera conference call for Technical Panel members.

The Chair said the question before Panel members was whether to refer the proposed amendment back to the April meeting of the Demand Response Working Group, or bring it forward for further discussion at the next Technical Panel meeting. Mr. Bieler said he was hesitant to postpone the topic by a second Technical Panel meeting to wait for the DRWG. Mr. Vegh said the Panel had the option of deferring the topic to its next meeting, requesting further submissions from anyone affected by the proposed amendment, and potentially inviting stakeholders to address a specific set of questions.

Mr. Wu said he would support a follow-up in-camera conference call. Ms. Griffiths said the call should not be held in-camera. She suggested the Technical Panel assemble follow-up questions for IESO staff and Resolute, then reconvene for further discussion and a potential vote, potentially in two weeks.

Mr. Bieler asked whether a Technical Panel decision in April would get the issue to the IESO Board any sooner than a final resolution at the Panel's June meeting. The Chair said the design and the specific language of any Market Rule amendment might be two separate votes and processes. Mr. Bieler asked whether there were any Board meetings scheduled between the April and June Technical Panel sessions and the August Board meeting. The Chair said the Board was scheduled to meet June 12, adding that when staff looked at timelines leading into the December 2019 demand response auction, the timing of the August meeting was deemed suitable. Mr. Bieler said that schedule left limited room for contingencies. With the Board meeting approximately six times per year, Mr. Sanders said the Technical Panel should meet in advance of its next scheduled session, at least in-camera.

Ms. Griffiths asked whether the IESO could obtain an outside legal opinion on the proposed amendment, to assess any risk of the scenarios Ms. Wagner had presented. Mr. Dent asked whether outside advisors could recommend appropriate wording. Mr. Urukov said the language of the Market Manuals would also have to be adjusted to address any concerns. The Chair replied that if a clear design intent is expressed through a Market Rule amendment, the Manuals are revised accordingly.

Given the complexity of the issue, Mr. Bieler asked whether a mechanism was available to allow Resolute's demand response obligation to be grandfathered for a year, to allow additional time for the Technical Panel to consider amendments to the Market Rules and Manuals and their implications. Ms. Savage said Resolute could avail itself of the existing Market Rule exemption

provision. In reply to Mr. Bieler, she confirmed that process would restore Resolute's obligation to 55 MW pending a decision on any Market Rule amendments, as long as the proposal was accepted by the IESO's exemption panel.

Mr. Bieler asked whether the exemption panel would be interested in hearing an opinion from the Technical Panel on whether to grant an exemption. The Chair said he hadn't considered the question, but the Technical Panel could express an opinion. Mr. Vegh said independent legal assistance could be helpful, adding that Resolute hadn't anticipated the unintended consequences that could result from the proposed amendment. He offered to work with IESO staff on phrasing that would avoid those consequences.

Mr. Forsyth asked whether the IESO could use an interpretation bulletin to address the situation. Reena Goyal, IESO, said the issue Resolute was raising would be more appropriately addressed through a Market Rule exemption, and Mr. Vegh said he would prefer a more transparent mechanism than issuing an interpretation bulletin.

Ms. Griffiths asked whether staff would be willing to work with Resolute to address any unanticipated consequences from the proposed amendment. She added that, at present, Panel members had no way of knowing whether the amendment constituted the right rule, or what would.

The Chair said he was hearing two issues: the implications and design issues that had emerged, some of which might be addressed through Market Rule language, and the design language.

Ms. Griffiths asked for a two-week period in which the IESO and Resolute would work together to address unintended consequences, while Panel members take the opportunity to list the questions raised by the discussion. The Chair said he wasn't sure how far those discussions would advance in two weeks. Mr. Vegh said it shouldn't be that difficult to come up with something. A participant asked whether Resolute's contract gave it authority to curtail generation. Mr. Vegh declined to discuss specific contractual terms in a group setting, but undertook to return to the Panel with input.

The participant asked whether the IESO can force generators out of the system if their involvement becomes problematic. The Chair said the IESO has that authority as the system operator, but distinguished between the economic issue under discussion and problems with reliability.

Ms. Savage proposed that Panel members compile a list of questions while the IESO and Resolute work on language, then continue the discussion at the Panel's regular meeting in April. She said the slightly longer timeline would allow for further discussion, and to share materials far enough in advance that Panel members have time for advance review. Mr. Samant asked whether a presentation to DRWG would be worthwhile. Mr. Forsyth said the DRWG was looking to the Panel for a technical solution, and Ms. Savage noted that any Technical Panel recommendation would have to be posted ahead of final deliberations.

Ms. Griffiths proposed that Panel members submit questions to Jason Grbavac within a week, to allow time for the IESO and Resolute to respond well in advance of the April meeting. Mr. Vegh and Ms. Savage said that the proposed timing was reasonable.

Mr. Bieler thanked both teams for the in-depth information they had provided on the topic. On a point of personal privilege, he recalled attending the February 14 Stakeholder Advisory Committee meeting and hearing a member describe the Technical Panel as a rubber stamp for the IESO. He said the comment was unfortunate and suggested SAC members might need education on the Panel's mandate. The Chair said the comment certainly didn't come from IESO staff. Mr. Bieler said he and the SAC member had had a cordial conversation afterwards, but suggested there was still an opportunity for clarification. Ms. Griffiths said the minutes of the last two meetings should be sufficient to counter the misperception. Mr. Bieler agreed: "We just proved today that we don't rubber stamp anything."

Other Business

With no other business to discuss, the meeting adjourned at 12:35 PM.

Action Item Summary			
Date	Action	Status	Comments

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IESO Technical Panel Meeting

Minutes of Meeting

Date held: February 6, 2019		Time held: 9:30am	Location held: Telephone
Invited/Attended	Sector Representation		Attended; Regrets
Robert Bieler	Consumer		Present
David Brown	Ontario Energy Board		Present
Ron Collins	Energy Related Businesses and Services		Present
David Dent	Other Market Participant		Present
Sarah Griffiths	Other Market Participant		Present
Robert Lake	Residential Consumer		Present
Phil Lasek	Industrial Consumer		Present
Dave Forsyth	Consumer		Present
Sushil Samant	Generator		Present
Joe Saunders	Distributor		Present
Jessica Savage	IESO		Present
Vlad Urukov	Generator		Present
Julien Wu	Wholesaler		Present
Michael Lyle	Chair		Present
Observers / Presenters			
Jo Chung	IESO		Present
Josh Duru	IESO		Present
Secretariat			
Reena Goyal	IESO		Present
Jason Grbavac	IESO		Present
Prepared by: Kathy Pearsall / Smarter Shift Inc.			

Welcome and Introductions

Agenda:

The meeting agenda was approved with no comments, questions, or additions.

Chair's Remarks:

An in-camera meeting was held on January 31, 2019. Discussion from that meeting has been summarized in a memo circulated by Jessica Savage, IESO, to TP members.

The Chair informed the Panel that the purpose of today's meeting was to discuss whether Ms. Savage's memo appropriately reflected the discussion that took place on January 31, and to vote on next steps to proceed with Market Rule Amendment Submission MR-0437-Q00.

Agenda Item 1: Market Rule Amendment Submission (MR-0437-Q00: Demand Response – Registration and Metering Requirement)

The Chair asked the Panel to comment on whether Ms. Savage's memo encapsulates the January 31 in-camera meeting.

Comments:

Ms. Griffiths supported the memo, stating that the in-camera meeting provided the Panel with an opportunity to understand the market rules and terms of reference, and helped to get everyone on the same page. In future, it may be possible to discuss matters of governance in a public forum.

Mr. Saunders supported the memo, adding that the in-camera meeting helped him to understand the amendment submission, which in turn will help him to understand the overall impacts of the market rule.

Mr. Collins supported the memo, stating that future in-camera meetings may be required when questions arise that are confidential or sensitive in nature. The Panel will try to make things transparent while ensuring the committee is as effective as possible.

Mr. Dent supported the memo and the in-camera session as a helpful administrative discussion to help move this issue forward, noting that this was the first time in a number of years that a market rule amendment submission had come from a market participant.

The Chair asked if the Panel would like to bring a motion for a vote. All agreed.

The Chair said three elements would be considered in the motion. Two participants suggested separate votes to reflect each element. The Chair responded that a separate vote would be held for each of the following elements:

- 1) The amendment submission warrants consideration;
- 2) The matter should be assigned a high priority; and,

3) The Panel will seek broad stakeholder input over a two-week period, and seek Demand Response Working Group (DRWG) perspectives at the February 12 DRWG meeting. Resolute will be invited to participate and present at the DRWG meeting.

Element 1:

Mr. Saunders moved to vote that the amendment submission warrants consideration.

Mr. Bieler voted in favour, stating that it was important to understand Resolute's position.

Mr. Collins voted in favour, noting that the submission identified ambiguity or confusion within the market rules that could cause interpretation confusion and lead to poor coordination or implementation, or to future disputes. He said the amendment must satisfy the market principle of efficiency with respect to the dispatch of resources and the determination of market prices.

Mr. Dent voted in favour, adding that it was necessary to fully explore the merits of the amendment submission.

Mr. Forsyth voted in favour, stating that it was important to avoid ambiguity and confusion.

Ms. Griffiths voted in favour, agreeing with the previous comments and memo by Ms. Savage, with nothing further to add.

Mr. Lake voted in favour, noting that the submission could provide for additional resources for Demand Response (DR). The DRWG needs to look at this closely and draw on outside expertise.

Mr. Lasek voted in favour, noting that, as an industrial customer installing a 10 MW storage facility, clear goals and criteria are required, especially in light of the definition change that occurred in the merging of the OPA into the IESO.

Mr. Samant voted in favour, stating that there was an impact on the market principle of efficiency. He said further discussion would provide a gateway to the next phase, which will be hearing from stakeholders.

Mr. Saunders voted in favour in order to address the ambiguity and confusion within the market rules. He said there was a need to understand the impacts on all participants.

Ms. Savage voted in favour because Resolute was claiming there was ambiguity within the market rules.

Mr. Urukov voted in favour on the basis of ambiguity and confusion on the part of Resolute. He said he would like to understand Resolute's assertion that the 2016 and 2017 auctions were treated differently from subsequent auctions.

Mr. Wu voted in favour agreeing with the previous comments by Panel members, with nothing further to add.

The Technical Panel unanimously adopted the motion that the amendment submission warrants consideration.

Element 2:

Mr. Forsyth moved to vote on giving the matter high-priority status, allowing it to be addressed sufficiently in advance of the next DR auction in December 2019.

Mr. Bieler voted in favour of high-priority status on the basis that a significant amount of time had passed since the submission arrived in November. He said the matter should be expedited, particularly in light of Resolute's participation in the next DR auction.

Mr. Collins voted in favour of high-priority status, stating that clarification of market rules would remove ambiguity and ensure consistent treatment of market participants.

Mr. Dent voted in favour of high-priority status, stating that it was desirable to have as many participants as possible in the DR auction.

Mr. Forsyth voted in favour of high-priority status in order to allow Resolute to move forward.

Ms. Griffiths voted in favour of high-priority status in order to allow Resolute to prepare for the auction.

Mr. Lake voted in favour of high-priority status, stating that the more participants that compete, the better for the consumer. He said there were practical matters, such as the control of metering systems, that would need to be in place prior to the December auction.

Mr. Lasek voted in favour of high-priority status with nothing further to add.

Mr. Samant voted in favour of high-priority status, stating that increased competition would drive down prices, and that this was long overdue.

Mr. Saunders voted in favour of high-priority status with nothing further to add.

Ms. Savage voted in favour of high-priority status so that the matter could be addressed sufficiently in advance of the December auction.

Mr. Urukov voted in favour of high-priority status with nothing further to add.

Mr. Wu in voted in favour of high-priority status with nothing further to add.

The Technical Panel unanimously adopted the motion that the amendment consideration be given high-priority status.

Element 3:

Mr. Bieler moved to vote that the Panel seek a broad range of stakeholder input over a two-week period ending February 21, and that the amendment submission be referred for discussion at the February 12 DRWG meeting.

Mr. Bieler voted in favour of seeking broad stakeholder input, stating that there could be implications for other participants and stakeholders with respect to the clarity the amendment was proposing. He said stakeholder and DRWG input would be needed because there may be impacts on a participant's ability to participate in the DR auction.

Mr. Collins voted in favour of seeking broad stakeholder input because broader circumstances require broader input on issues that the Panel may not be aware of.

Mr. Dent voted in favour of seeking broad stakeholder input.

Mr. Forsyth voted in favour of seeking broad stakeholder input because Resolute needs an opportunity to present its position at the DRWG meeting.

Ms. Griffiths voted in favour of seeking broad stakeholder input with nothing further to add.

Mr. Lake voted in favour of seeking broad stakeholder input because he expected there would be diverse views on this matter. What the Panel does should augment what the DRWG has already done.

Mr. Lasek voted in favour of seeking broad stakeholder input, stating that if there was a change in interpretation during the merger from OPA to IESO, there could be implications in other areas. The Panel needs to understand there is a set of procedures, and the working group of the day would need to be able to intervene and insist on proper protocol to prevent the system from being short-circuited.

Mr. Samant voted in favour of seeking broad stakeholder input, stating that it would be interesting to hear what the stakeholders and their competitors had to say, particularly on lowering prices through competition.

Mr. Saunders voted in favour of seeking broad stakeholder input, stating that he wanted to gain a better understanding of the impacts on all market participants.

Ms. Savage voted in favour of seeking broad stakeholder input with nothing further to add.

Mr. Urukov voted in favour of seeking broad stakeholder input, stating that the DRWG meeting was an appropriate forum to provide a technical perspective.

Mr. Wu voted in favour of seeking broad stakeholder input with nothing further to add.

The Technical Panel unanimously adopted the motion to seek broad stakeholder input on the amendment submission.

In conclusion, the Panel unanimously agreed that the amendment submission warranted consideration as a high priority item, and that the Panel would seek broad stakeholder input by inviting written submissions for a two-week period ending February 21. The matter will be referred for discussion at the February 12, 2019 DWRG meeting, where Resolute will be invited to make a presentation.

Further Business:

Mr. Collins asked if there would be an opportunity for IESO staff to identify the financial impact to end users or ratepayers of the amendment decisions, stating that what is fair to the market but unfair to ratepayers must be weighed. He said there may be some urgency in starting this process.

Ms. Savage said the Panel should explore financial impacts with the DRWG, as well, so that it is not up to the IESO alone to come up with an assessment.

With no other business to discuss, the meeting adjourned at 10:06 AM.

Action Item Summary			
Date	Action	Status	Comments
Jan. 29, 2019	In camera meeting to discuss the process for the market rule amendment proposed by Resolute.	Closed	See Technical Panel memo – Feb 5, 2019
Feb. 6, 2019	The Panel will seek broad stakeholder input on the amendment submission over a two-week period ending February 21. The matter will be referred for discussion at the February 12 meeting of the DRWG.	Open	

IESO Technical Panel Meeting

Minutes of Meeting

Date held: January 29, 2019		Time held: 10:00 am	Location held: Teleconference
Invited/Attended	Sector Representation		Attended/Regrets
Robert Bieler	Consumer		Present
David Brown	Ontario Energy Board		Present
Ron Collins	Energy-Related Businesses and Services		Present
David Dent	Other Market Participant		Present
Sarah Griffiths	Other Market Participant		Present
Robert Lake	Residential Consumer		Present
Phil Lasek	Industrial Consumer		Present
Dave Forsyth	Consumer		Present
Sushil Samant	Generator		Present
Joe Saunders	Distributor		Present
Jessica Savage	IESO		Present
Vlad Urukov	Generator		Present
Julien Wu	Wholesaler		Present
Michael Lyle	Chair		Present
Observers / Presenters			
Jo Chung	IESO		Present
Josh Duru	IESO		Present
George Vegh	McCarthy Tétrault LLP		Present
Secretariat			
Reena Goyal	IESO		Present
Jason Grbavac	IESO		Present
Prepared by: Kathy Pearsall / Smarter Shift Inc.			

Agenda Item 1: Introduction and Administration

Agenda

The meeting agenda was approved with no comments, questions, or additions.

Minutes and Action Items

The minutes of the August 14, 2018, meeting were approved unanimously.

Agenda Item 2: Stakeholder Engagement Update

Jason Grbavac, IESO, provided an update on current engagements.

With respect to Market Renewal, high-level designs (HLDs) for the Single Schedule Market (SSM), the Day-Ahead Market (DAM), and the Enhanced Real-Time Unit Commitment (ERUC) are nearing the detailed design phase. The DAM and ERUC HLDs are still under review and comments are due by February 28. Stakeholders will be invited to participate in the detailed design engagement to address specific design elements.

A kick-off meeting tentatively planned for March will walk stakeholders through the various design elements of the Energy stream. The Technical Panel is encouraged to continue participating in MRP engagement opportunities.

The HLD for the Incremental Capacity Auction will be released in March. Stakeholder review and a detailed design engagement will follow.

The IESO will provide regular updates on market renewal and non-market renewal engagement activities in 2019.

Questions

Mr. Urukov said a handy document on active engagements was last published in November 2018. He asked whether an update is coming. Mr. Grbavac said the engagement report was paused late last year, and the IESO is looking at reviving it before the Panel meeting in March.

Mr. Dent asked when market rule amendments driven by Market Renewal detailed design work might start rolling out. Mr. Grbavac said design forum conversations would begin after the March kick-off meeting. Mr. Chung said the Market Renewal amendments might be published for stakeholder comment by the fourth quarter of 2019.

Agenda Item 3: Market Rule Amendment Submission	
IESO Support Staff	Josh Duru
Stakeholder Plan	MR-0437-Q00: Resolute FP Canada (“Resolute”) Market Rule Amendment Submission – Demand Response Registration and Metering Requirements

The Chair said the purpose of the discussion was to seek the Panel’s recommendation on processing a market rule amendment submission from Resolute FP Canada. Josh Duru, IESO, will deliver an overview of the submission. George Vegh, McCarthy Tétrault LLP (“McCarthy’s”), will describe the amendment and provide context.

Mr. Duru said that on October 11, 2018, McCarthy’s filed an amendment submission with the IESO on behalf of Resolute. It claims the demand response (DR) market rule unjustly discriminates against market participants, or a class of market participants. The IESO sent the amendment submission to the Panel on November 28, 2018. At that time, the IESO proposed that the submission be referred to the Demand Response Working Group (DRWG) at its first meeting in 2019. In response to the IESO’s November 28 memo to the Panel, McCarthy’s raised concerns that were documented in letters to the IESO which have been published on the Panel’s web page, along with the IESO’s response. The IESO requests that the Panel support the proposal that the submission be referred to the DRWG in order to inform future Panel discussions.

Questions for IESO Staff

Mr. Samant asked whether there was a DRWG meeting after the amendment submission proposal. Mr. Duru said the letter was sent to the Panel in advance of the joint IESO Board/Panel meeting on December 4. The last DRWG meeting of 2018 was before the submission was received and the next DRWG was scheduled for February 2019.

Ms. Griffiths asked for confirmation that the first time the Panel knew of McCarthy’s concerns noted in their December 4th letter was in January when it received material that included the McCarthy’s letters. Mr. Duru said the Panel was first informed of the concerns in January.

Mr. Bieler said Mr. Grbavac circulated the amendment submission proposal to the Panel on November 28, but no formal Panel meeting was held at the time. Mr. Duru confirmed. Mr. Grbavac indicated that the annual joint IESO Board/Panel meeting is an opportunity to connect the two groups on broader perspectives, with the Resolute submission sent to the Panel with proposed next steps indicated in the November cover memo. Mr. Bieler noted that today is the first Panel meeting where the amendment submission is being discussed. Mr. Duru confirmed.

Mr. Urukov said some of language around next steps was expanded after the November memorandum. He asked whether this was done in response to further comments made by Resolute or to clarify the IESO’s original intent. He asked whether the Panel was to have

provided an opinion. Mr. Duru said that at this time the IESO is seeking explicit endorsement of the proposal put forward in November and that the IESO's proposed course of action indicated in the November cover memo has not changed.

Ms. Griffiths asked whether there are examples of amendment requests from other market participants that were sent to an established working group. Ms. Savage said amendment submissions driven by market participants are rare and the IESO has only received one or two in recent history.

Mr. Bieler said he supported the amendment submission going first to the DRWG because it is a technical matter concerning the configuration of meters. The DRWG discussion would inform the Panel discussion.

Mr. Forsyth asked what the alternatives are if the submission does not go to the DRWG. The Chair indicated that the Panel could vote that the amendment warrants consideration and determine what process or forum would best assist the Panel.

Mr. Saunders said it was mentioned in the documentation that the arrangement with the revenue meters and grid meters has been accepted in previous programs, and that the IESO has changed its position. He asked the IESO to explain further. Mr. Grbavac said previous DR opportunities were provided in contracts from the former Ontario Power Authority. The IESO worked with stakeholders to transition to a market-based mechanism that brought changes to older, contract-based opportunities. Changes were made to DR2 and DR3 program rules and requirements.

Mr. Collins asked how many other entities could be affected by the submission. Mr. Grbavac said only one participant has been heard from.

The Chair turned the discussion over to Mr. Vegh and invited the Panel to ask questions.

Mr. Vegh provided the details of the amendment. Resolute is asking that the Panel follow the market rules. The rules demonstrate the need for the Panel to act independently and not be managed by IESO staff. There is concern regarding the role of the IESO in managing the DRWG process in this matter.

In November, Resolute proposed a simple market rule amendment to the IESO with respect to the DR program. Resolute does not see the market rule itself as discriminatory. Rather, it is Resolute's position that the interpretation of the rule by staff is discriminatory. The amendment seeks a clarification of the market rule that the measurement of DR includes demand served by the grid as well as by self-generation. The market rules do not differentiate, and Resolute's position is that there should be no differentiation. The IESO's interpretation is that self-generation counts toward DR behind the distribution meter but does not count if the customer is directly connected. Resolute does not agree with the IESO's interpretation and asks for clarification from within the market rules.

Furthermore, if the IESO's interpretation of the market rule stands, the rule will be seen as discriminatory under the *Electricity Act*, and this would provide grounds for the Ontario Energy Board to overturn it.

Resolute raised concerns that the amendment submission should not be administered through the DRWG, but the IESO has not addressed the concern. Resolute claimed that IESO staff said that they control the market rule amendment process and that this particular amendment will not pass. Under the market rules, IESO staff do not control the amendments. The Panel has an independent mandate to consider the rules and their merits. The Panel's terms of reference differentiate between rules brought forward by IESO staff and those that are not. The role of the Panel is limited to considering whether the language of the rule meets the goal of the proposed amendment.

Resolute filed the amendment in November, and it has been difficult to get the amendment to the Panel. Three letters were provided (two in December, one in January), and it has been difficult to get a response. Resolute stated that the position of staff that the amendment should not go forward is central to the Panel's consideration and that market participants must get a fair hearing.

The rules being discussed are in Chapter 3, Section 4 of the market rule amendment process. The rules set up a requirement for the Panel to undertake a specific, transparent process in making determinations regarding proposed rules.

Resolute went on to describe the following sections of the Market Rules:

- Section 4.2.4 requires that amendment submissions be put forward. Resolute put forward its submission in November.
- Section 4.3.2 states that the Panel may request that the submitter provide further particulars. The Panel has not made a request.
- Section 4.3.5 states that the Panel shall report to the board and give notice to market participants or other interested persons as to whether the request for amendment is, in the opinion of the Panel, of such a nature that consideration is warranted as well as the extent of the consultation. There is no prescribed step stating that it should be left up to IESO staff to consult with others and report back to the Panel.

Mr. Samant asked whether the Panel would be following Section 4.3.2 by asking the submitter whether stakeholders were consulted regarding the amendment submission. Mr. Vegh said the Panel could request that the person submitting the amendment provide further particulars. Section 4.3.5.1 addresses the consultation. Mr. Samant said he wants to know whether the participant has consulted stakeholders. Mr. Vegh said he does not believe so. It is not that Resolute is opposed to stakeholder consultation; rather, Resolute wants the matter to be managed by the Panel.

Mr. Vegh continued, section 4.3.7 states that if the Panel decides consideration is warranted, the Panel can publish the rule, seek comments, and set the time of submission. It is a very transparent process.

Mr. Bieler said it appears the cart is being placed before the horse. The IESO is saying that it is referring the submission to the DRWG to assist and inform the Panel. The Panel has not discussed or debated the submission yet because it has only just been circulated to the Panel. Whether or not the IESO should have first gone to the DRWG is up for debate. The normal Panel process has not yet begun. The Panel now awaits comments from the DRWG, and the Panel will debate the rule amendment. Mr. Vegh said that short-circuiting the submission process through the DRWG is not consistent with what the rules require.

Mr. Samant asked whether Resolute would take issue if the Panel wants to solicit input on the submission from the community at large. Mr. Vegh said it is fine if the Panel wants to directly solicit input from outside the DRWG.

Mr. Bieler said the DRWG is just one source of input.

Mr. Vegh said the submission process must be carried out in a formal and transparent way, not under the auspices of the DRWG.

The Chair noted that the one-hour time allotment for today's meeting was coming to an end and asked whether Panel members would like to continue past the hour. All Panel members agreed to stay.

Ms. Griffiths said today's discussion is a significant issue that requires more than an hour conference call. It is the first participant-driven submission in recent history, and it is precedent setting. Secondly, in the IESO's January 18th response memo to McCarthy's concerns, Ms. Griffiths indicated she has an issue with the statement that "the IESO has not received any objection to date from any Panel members on the proposed approach noted in the November 28th cover letter." Had Panel members known of McCarthy's concerns, TP members may have had an issue had they known all the facts.

Mr. Wu suggested that an in-camera session would be helpful to continue this discussion.

Mr. Urukov requested clarification of the rule amendment submission. Mr. Vegh said the rule does not need an amendment because it does not differentiate between DR behind the meter and DR that is directly connected. However, because IESO staff are not reading it this way, Resolute is proposing an amendment for clarification. Mr. Urukov asked whether Resolute is looking for further clarification from the IESO. Mr. Vegh said Resolute is looking for an amendment of the rule to provide clarification.

Mr. Vegh added that section 4.9.3 states that the Panel can establish working groups to assist it. It can set the terms of reference, the questions, and the mandate of a working group. The Panel must notify the IESO Board of its intention to set up a group, and the IESO must give notice to

all market participants and other interested parties. It is a formal process. He requested that the Panel follow the process to the letter of the law.

IESO Staff Remarks

Ms. Goyal said different IESO staff are involved in the Panel and in dispute resolution, which operates on a confidential, without-prejudice basis. Any representations that IESO staff may have made about the market rule amendment were made in the context of a without-prejudice process, not within the Panel process. As Mr. Vegh said Section 4.9.3 states that the Panel can refer the matter for further consultation. The IESO had suggested that the matter be referred to the DRWG because that group was already established and has expertise in dealing with these issues. The Panel can establish a working group or strike a subgroup of the DRWG to consider specifically mandated items. The DRWG is a public forum. It is not necessarily the DRWG's mandate to provide opinions and guidance to the IESO. The IESO merely facilitates the forum and administers the meetings. The DRWG is an appropriate and transparent forum to assist the Panel in making a determination.

Responding to Mr. Forsyth's earlier question about alternatives to the process, Ms. Goyal said if the Panel determines that the DRWG is not the correct forum, it is within the purview of the Panel to direct the IESO toward an appropriate forum.

Mr. Vegh said it is not accurate to state that the comment by IESO staff that the market rule amendment would not pass was made without prejudice. Resolute asked three times for correspondence to determine who within the IESO has been communicating with whom about the submission. Given the lack of response, Resolute filed a Freedom of Information request. The IESO will need to demonstrate that there is a separate group that does not communicate with the Panel. The terms of reference state that the DRWG was established to advise and assist the IESO, and not the Panel, which is independent.

The Chair said it was the view of IESO staff that the DRWG would be of assistance to the Panel in making a determination, just as other working groups and/or committees have supported the Technical Panel's review of recent amendments, e.g. Capacity Exports. It is a decision for the Panel to make.

Ms. Griffiths said the letter from the IESO to McCarthy Tétrault made her uncomfortable. It stated that the IESO had heard no objections from Panel members concerning the proposed approach. However, the Panel did not have enough information to provide any response.

The Chair suggested that it appears that Panel members would like time to deliberate without IESO staff and legal counsel present. Panel members confirmed and agreed to attend an in-camera meeting on Thursday, January 31, at 4 p.m. The purpose of that meeting will be to discuss the process going forward, not to make a decision on the rule amendment.

It was agreed that Ms. Savage, who is both a Panel member and IESO staff, would be invited to attend the in-camera meeting. It was agreed that there is no conflict if a Panel member in attendance is also part of the DRWG.

The meeting adjourned at 11:20 a.m.

Action Item Summary			
Date	Action	Status	Comments
Jan. 29, 2019	In camera meeting to discuss the process for the market rule amendment proposed by Resolute.	Closed	In-camera session occurred on January 31, 2019.

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Independent Electricity System Operator

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Memorandum

To: Technical Panel
From: Jo Chung
Date: March 1, 2019
Re: MR-00437: Demand Response – Registration and Metering Requirements

Attached for Technical Panel review and consideration are the following documents:

- IESO Presentation;
- Resolute FP Canada (“Resolute”) Presentation
 - Resolute Market Rule Amendment Submission
 - IESO/Resolute Email Communication
 - Technical Panel Materials January 2015, DR Auction Presentation & Minutes
 - Technical Panel Materials June 2015, DR Auction Presentation & Minutes
 - IESO Board Approved Amendment Proposal, MR-00416-R00, August 2015.

At the February 6, 2019 Technical Panel meeting, the Panel determined that Resolute’s amendment submission warranted consideration with a high priority. The Panel requested that the amendment submission be discussed at the Demand Response Working Group (DRWG) meeting on February 12th, and that Resolute be invited to present to the DRWG at that meeting. In addition, the Panel invited market participants and other interested persons to make written submissions for a period of two weeks, ending February 21, 2019.

The [February 5, 2019 cover memo](#) indicated the following next steps for the March 5th Technical Panel meeting:

1. Technical Panel review of any written submissions received during the 2-week comment period – no written comments were received;
2. IESO staff to provide a summary of the February 12th DRWG discussions – please see attached IESO presentation;
3. Resolute to make submissions and present to the Technical Panel – please see attached Resolute presentation;
4. IESO staff to articulate its position – since the February 12th DRWG and IESO review of Resolute’s presentation in further detail, the IESO position on Resolute’s proposal is indicated in the attached IESO presentation.

Next Steps

Following Technical Panel review and discussion of the attached presentations at the March 5th meeting, the IESO requests that the Technical Panel continue to support the need for further analysis to understand broader impacts and any related unintended consequences. The IESO proposes that the Technical Panel determine that this be done by way of continued discussions by the DRWG. In keeping with the timeline for the December 2019 Demand Response auction, the IESO proposes that the matter come back before the Technical Panel by the June 29, 2019 Technical Panel meeting to inform a Technical Panel vote on the amendment no later than the August 13, 2019 Technical Panel meeting.

Yours truly,

Jo Chung

Attach.

IESO Response to Proposed Market Rule Amendment submitted by Resolute

MR-00437: Demand Response – Registration and Metering Requirement

Technical Panel
March 5, 2019

Agenda

- Recap - *Feb 6th* TP meeting
- Summary of DRWG meeting and Feedback
- Market Rule Amendment Submission
- Background – DR Auction
- Technical Implications
- IESO's position on Amendment Submission

Recap

- At the Feb 6th TP meeting, the Panel:
 - Determined Resolute's amendment submission warranted consideration with a high priority
 - Invited market participants and other interested persons to make written submissions to the TP by Feb 21st
 - Requested that the amendment submission be discussed at the DRWG meeting on Feb 12th, and that Resolute be invited to present to the DRWG at that meeting
 - IESO indicated that at the March 5th TP meeting:
 - TP will review any written submissions received – **no written feedback was received**
 - IESO will provide a summary of the Feb 12th DRWG discussion
 - Resolute will be invited to make submissions at the meeting
 - IESO staff will articulate its position at the meeting

Summary of DRWG and Feedback

- Resolute presented the presentation provided today to TP members
- DRWG Participant Comments:

Summary:

- Support from a few members on Resolute's high level proposal
 - Recognition of the need for a better understanding of what scenarios or issues could arise with different metering configurations
 - More details on the concerns the IESO may have with Resolute's proposal is required
- Other DRWG Participant Comments:
 - Ultimate test applied to this situation should be whether Resolute met a net reduction in load
 - Important to look at this issue consistent with expected Incremental Capacity Auction (ICA) design

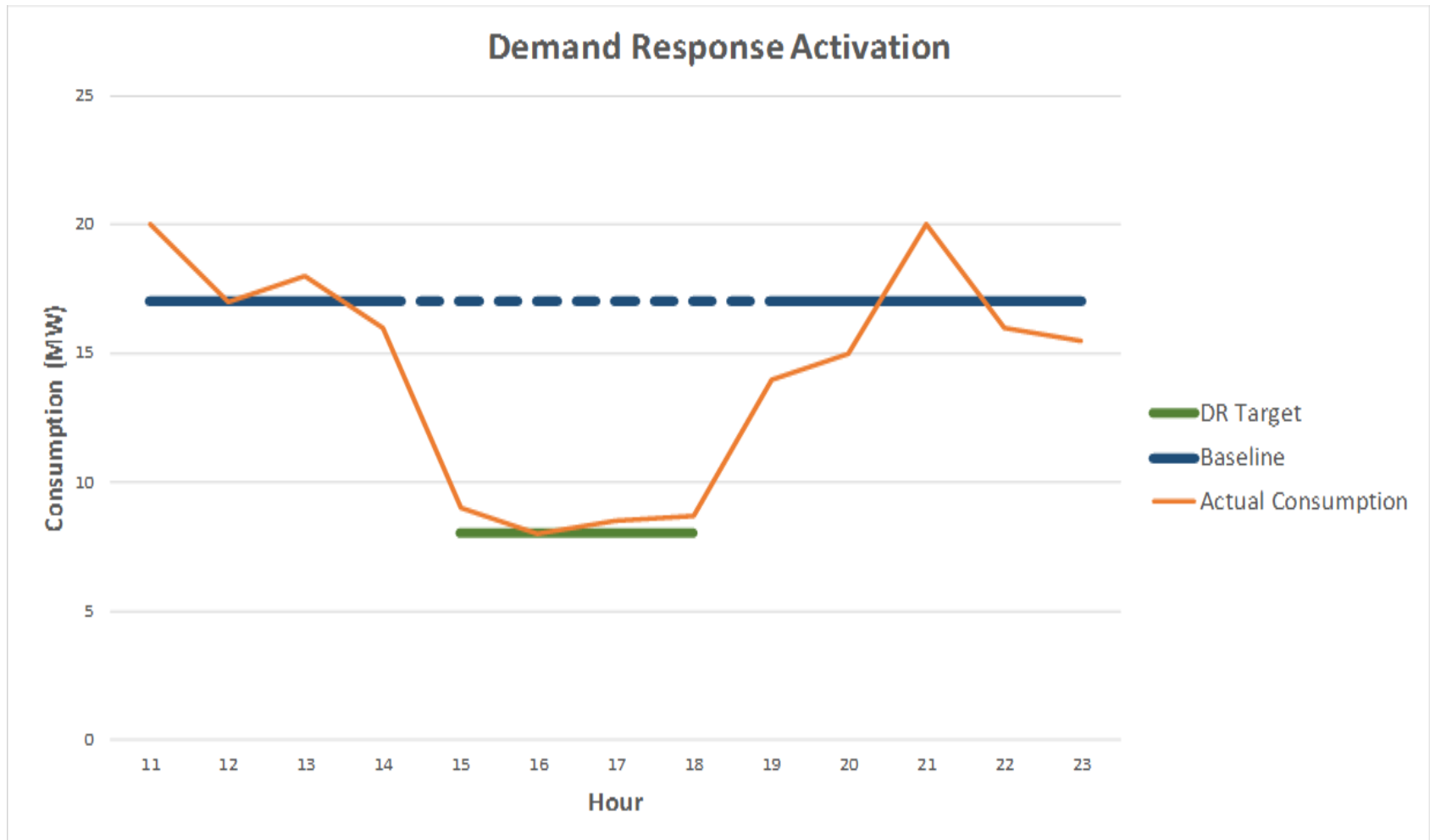
Resolute's MR Amendment Proposal

- Resolute proposes that an amendment or review of the market rules is necessary to change the registration and metering requirements for market participants that provide demand response
- Resolute claims that IESO interpretation of the market rules is inconsistent with the purposes of the *Electricity Act* and results in the market rules unjustly discriminating against market participants who rely on self-generation to meet their consumption of electricity
- It further claims that the IESO's assessment of available DR capacity should be independent of any behind-the-meter generation
- Resolute's amendment submission proposes that the IESO should not differentiate between the **IESO revenue meter** that connects DR participant to the ICG and **non-IESO revenue meter** that measures self-generation in establishing the DR Baseline and assessing DR curtailment

Background – DR Auction

- Unlike previous DR programs which contracted DR from eligible projects, the DR auction is a market based mechanism to competitively procure capacity from demand-side resources and provide demand reductions at the IESO controlled grid (ICG) in real-time
- DR curtailment is measured against a DR participant's baseline consumption profile (the DR Baseline)
 - DR Baseline is determined hourly based on the average peak consumption during that hour from the last 15 of 20 suitable business days
- Participants with behind-the-meter generation (including self-generation) can provide DR by either curtailing the facilities' load, utilizing the generator to displace the facility load, or a combination thereof as measured at the grid
 - A non-dispatchable load facility with behind-the-meter generation only gets compensation for load reduction. Generation injected into the grid does not qualify for DR capacity obligation
- Physical resources in the IESO Administered Market (IAM) may also participate in DR to provide DR capacity obligation
 - Only the consumption registered by the IESO Revenue Meter is used to determine the DR Baseline and assessment of DR curtailment

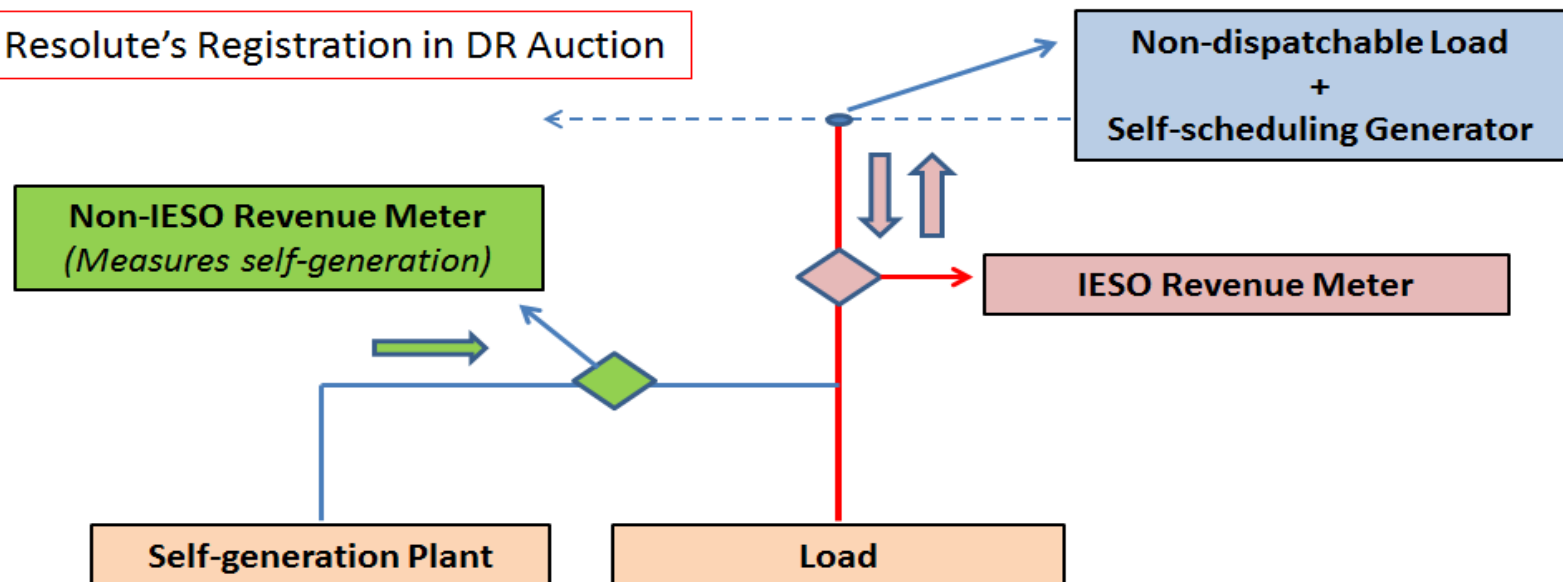
Background – DR Auction (cont'd)



Resolute's Participation in IAM & DR Auction

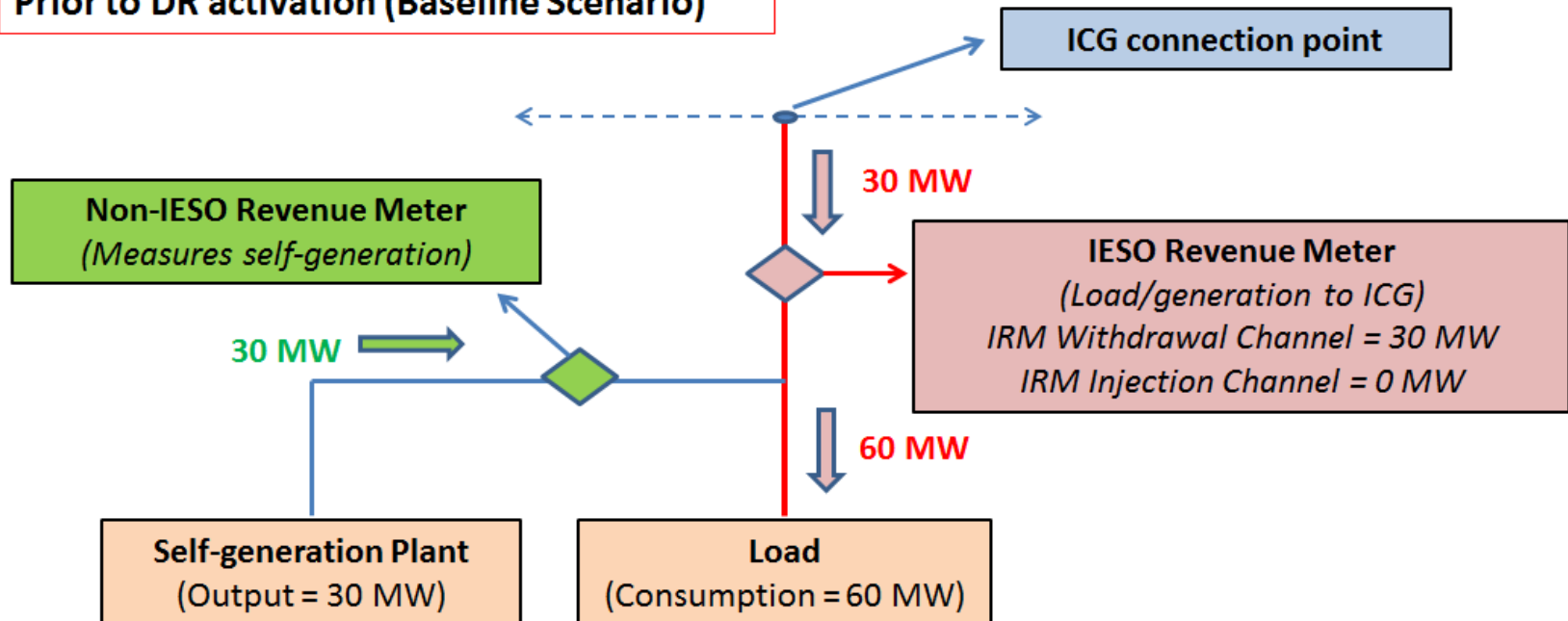
- Resolute's Thunder Bay news-mill manufacturing facility is comprised of load (pulp and paper operations) and co-generation plant
- Resolute has registered its facility as a (net) non-dispatchable load and self-scheduling generation facility in the IAM
- Resolute has registered their non-dispatchable load resource for the DR auction
 - Consumption measured by the **IESO revenue meter**, associated with its non-dispatchable load, is used to determine their DR Baseline and assess their DR curtailment
 - Use of **non-IESO revenue meter**, which measures its self-generation, is not permitted in the DR Auction

Resolute's Registration in DR Auction



Technical Implications of MR Amendment Submission

Prior to DR activation (Baseline Scenario)



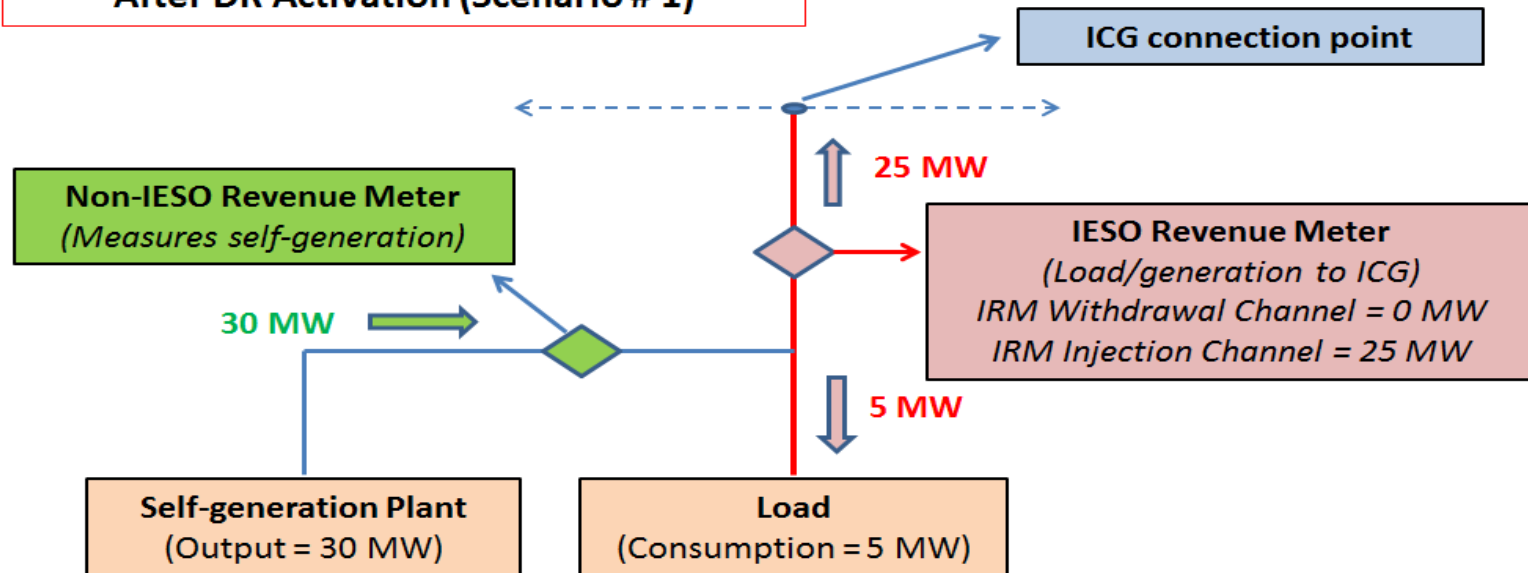
DR Auction Baseline = 30 MW (IESO Revenue Meter)

Proposed DR Auction Baseline = 30 MW (IESO Revenue Meter) + 30 MW (Non-IESO Revenue Meter) = 60 MW

For illustration purposes only

Technical Implications of MR Amendment Submission – Scenario # 1

After DR Activation (Scenario # 1)



Compared to Baseline Scenario:

DR Capacity Delivered = 30 MW

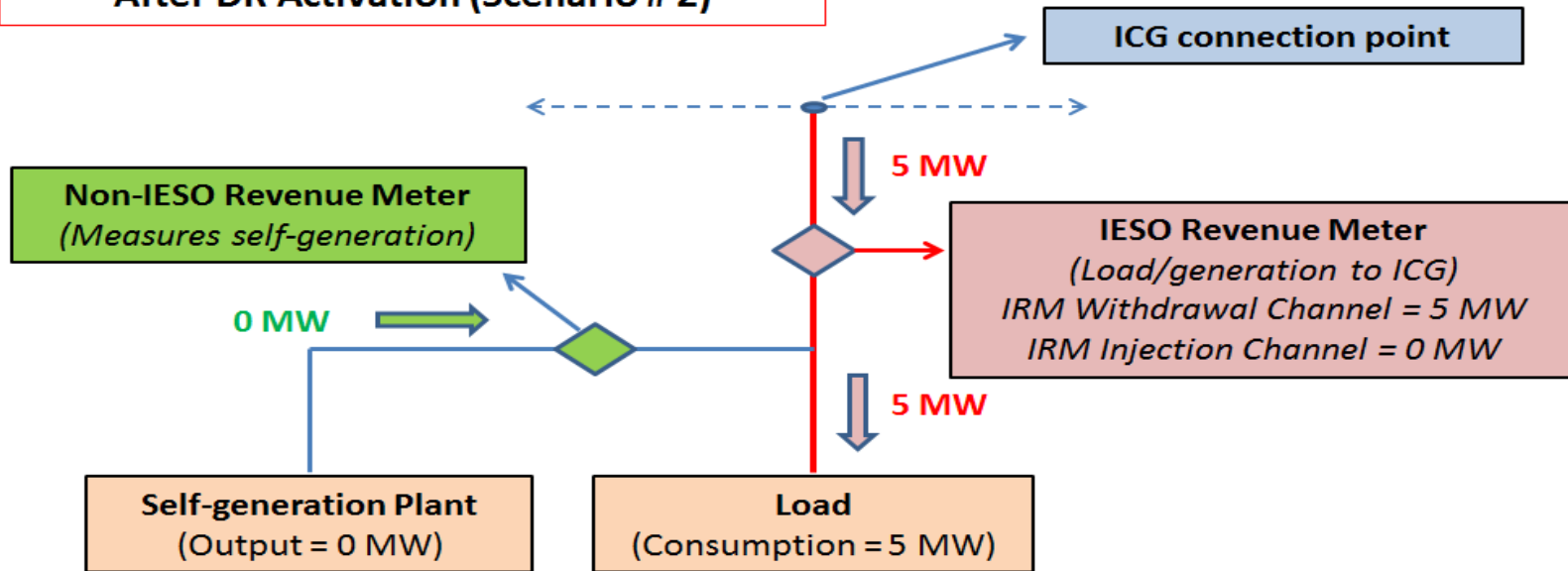
Proposed DR Capacity Delivered = 55 MW

Net Capacity Delivered to the ICG = 55 MW

For illustration purposes only

Technical Implications of MR Amendment Submission – Scenario # 2

After DR Activation (Scenario # 2)



Compared to Baseline Scenario:

DR Capacity Delivered = 25 MW

Proposed DR Capacity Delivered = 55 MW

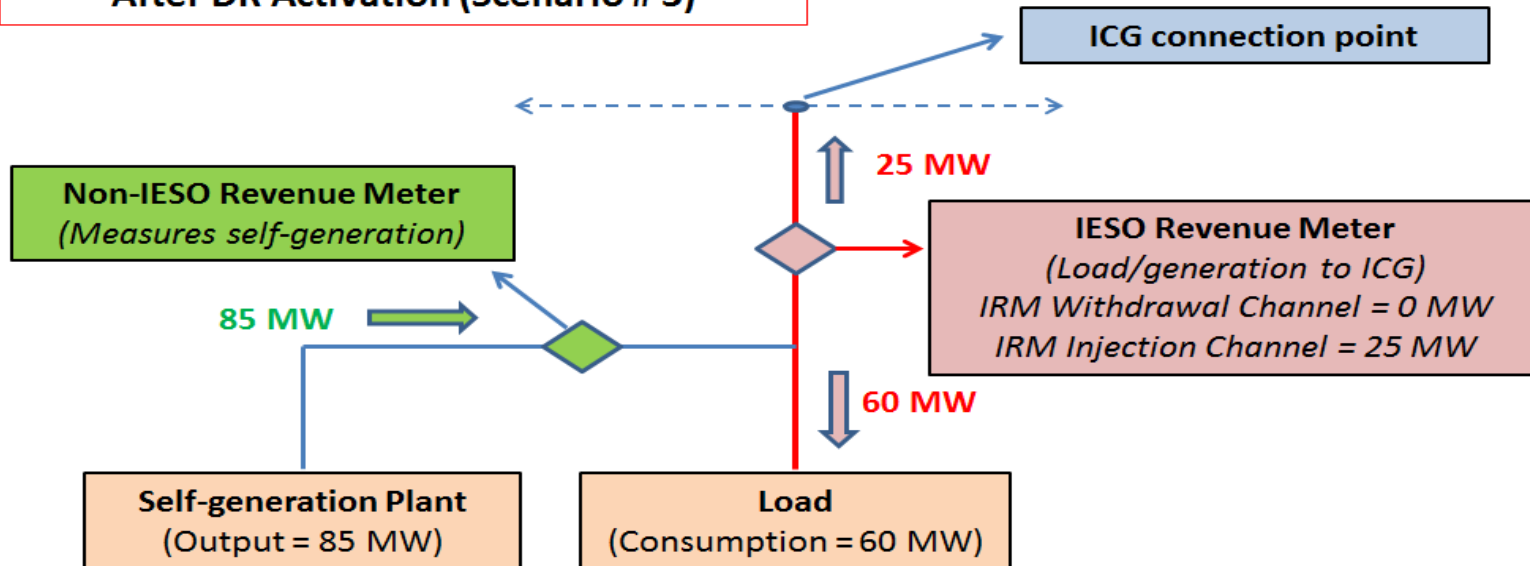
Net Capacity Delivered to the ICG = 25 MW

Proposed DR Capacity Delivered
overstated

For illustration purposes only

Technical Implications of MR Amendment Submission – Scenario # 3

After DR Activation (Scenario # 3)



Compared to Baseline Scenario:

DR Capacity Delivered = 30 MW

Proposed DR Capacity Delivered = 0 MW

Net Capacity Delivered to the ICG = 55 MW

Proposed DR Capacity Delivered
understated

For illustration purposes only

IESO's position on MR Amendment Submission

- The intention of DR Auction is to procure capacity from demand-side resources to provide load reductions at IESO controlled grid
- The IESO acknowledges that the availability to provide injections into the IESO grid could potentially have capacity value and could benefit ratepayers but DR auction is restricted to demand side reductions only
- The proposed amendment submission is not a clarification of existing rules but a design change
- The proposed amendment does not provide intended results under all scenarios
 - The 'Proposed DR Capacity' delivered overstates or understates the actual load reduction at the ICG
- As a general principle, the IESO does not support different metering arrangements for different programs
 - For example, this arrangement can result in unfair treatment where a generator is allowed to be behind the meter for one program while simultaneously be in front of the meter for another program
 - This could potentially yield unintended consequences if not thoroughly assessed

IESO's Recommendation

- The IESO does not support this MR amendment submission in its current form due to its technical implications
- The IESO acknowledges that the availability to provide injections into the IESO grid could potentially have capacity value and could benefit ratepayers, and therefore would recommend further consideration by the DRWG
- The IESO believes further analysis is required to appropriately capture broader impact and any related unintended consequences for any design change

V

IESO Engagement

From: cara degelman
Sent: February 26, 2019 4:10 PM
To: Market_Rules_Group,@resolutefp.com
Cc: tony ruberto; Jason Grbavac; Daniela Drazic
Subject: Fw: IESO Technical Panel - March 5th
Attachments: DOCS-#18822908-v2-
MT_DRWG_Presentation_-_Resolute_TB_Market_Rule_Amendment_-_February_2019R3.pdf; TP DRA Meetings August 2015.pdf; TP DRA Meetings Jan 2015.pdf; TP DRA Meetings June 2015.pdf

Good afternoon Jo,

Thank you for your email to Resolute respecting the March 5 Technical Panel Meeting. Attached are the materials that Resolute intends to refer to at that meeting. Resolute requests 30 minutes on the agenda. Peter Giardetti will speak to the power point deck he provided to the DRWG, and George Vegh will speak to the text of the market rule submission. Other people attending at the meeting on behalf of Resolute are Peter Giardetti, Tony Ruberto and myself Cara Degelman.

Please let us know who will be presenting the IESO's position and forward the materials they will be providing to the Technical Panel.

With respect to next steps following the meeting, I note that IESO staff intends to propose that this matter return to the DRWG. Resolute is concerned that this approach can result in unnecessary delay. Given that the Technical Panel assigned a high priority to this amendment, Resolute does not see the value in returning this to the DRWG. If there are specific questions that the Technical Panel may have for DRWG members, or others, it can certainly state them to seek further input. I trust that you will advise the Technical Panel of Resolute's views in this regard in any communications you may have with the Panel.

Please let me know if you have questions or concerns.

Regards,

Cara Degelman | Manager Energy Procurement
Resolute Forest Products | T: (514) 394-2194 | C: (514) 604-3687
111 Robert-Bourassa Blvd, Montreal, QC H3C 2M1
Cara.Degelman@ResoluteFP.com

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----- Forwarded by Peter Giardetti/TBY/CSC on 02/25/2019 04:13 PM -----

From: "Market Rules Group"
To: "peter giardetti", "tony ruberto",
Cc: "Jason Grbavac", "Daniela Drazic"

Date: 02/25/2019 04:04 PM
Subject: IESO Technical Panel - March 5th

Peter/Tony,

For the March 5th Technical Panel meeting, we would like to invite Resolute to present to the Technical Panel the Feb 12th DRWG presentation. The meeting will be held at our Adelaide offices (120 Adelaide Street West, Toronto ON, M5H 1T1 – 16th floor). The meeting will start at 9:00 and end around 11:30.

At the meeting, following Resolute's presentation, the IESO will give a presentation to the Technical Panel on its position on Resolute's proposal. Regarding next steps following the March 5th Technical Panel meeting, the IESO will propose that further discussion of Resolute's proposal continue at the April 25th DRWG meeting to address the feedback we had received from participants at the Feb 12th DRWG.

Please confirm you are able to attend the March 5th Technical Panel meeting and who specifically will be attending (in order for us to notify our Reception). Also, please let us know if the presentation for the March 5 TP will be the same as delivered at the February 12 DRWG, as we will include the presentation with the TP materials that will be posted and shared with the TP tomorrow via email.

Please let me know if you have any questions.

Best regards,

Jo Chung | Supervisor – Market Rules | Legal Resources and Corporate Governance|
Independent Electricity System Operator (IESO) | T: 905.855.4128 | F: 905.855.6371 |
Web: www.ieso.ca | Twitter: [IESO_Tweets](https://twitter.com/IESO_Tweets) | LinkedIn: [IESO](https://www.linkedin.com/company/ieso)
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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00416-R00		
Subject:	Demand Response Auctions		
Title:	Demand Response Auctions – Participant Authorization & Facility Registration		
Nature of Proposal:	☒ Alteration	☐ Deletion	☒ Addition
Chapters:	2, 7 & 11	Appendix:	2.2
Sections:	Chapter 2, section 2, 3, Chapter 7 section 18 (new), 19 (new), Chapter 11 definitions		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review	May 26, 2015
2.0	Publish for Stakeholder Review and Comment	June 4, 2015
3.0	Submitted for Technical Panel Vote	June 30, 2015
4.0	Recommended by Technical Panel; Submitted for IESO Board Approval	July 7, 2015
5.0	Approved by IESO Board	August 26, 2015
Approved Amendment Publication Date:		August 27, 2015
Approved Amendment Effective Date:		September 18, 2015

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

The IESO proposes to amend the market rules in order to implement a Demand Response Auction to allow for the future competitive procurement and development of demand response in Ontario.

Specifically, this amendment proposal will:

- Create a new market participant class, “demand response auction participant;”
- Specify the requirements to participate in a demand response auction, which include providing a demand response auction deposit;
- Specify that demand response auction participants who obtain a demand response capacity obligation through an auction, must become a demand response market participant;
- Provide details and eligibility for the delivery of demand response capacity obligations; and
- Specify that in order to deliver on a demand response capacity obligation, demand response market participants must satisfy the registration requirements as either a dispatchable load, or the requirements of an hourly demand response resource.

This proposal is based on the Demand Response Auction stakeholder engagement.

Further information on the Demand Response Auction stakeholder engagement can be found on the IESO’s website at:

<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Demand-Response-Auction.aspx>

Background

In order to participate in a demand response auction, existing market participants or new applicants must become authorized as a demand response auction participant. This market participant type will allow organizations to become authorized with the IESO for the purposes of participating in the auction and to be bound by the applicable IESO market rules. There are additional authorization and facility registration requirements for the IESO physical market for those auction participants that obtain a demand response capacity obligation from the auction.

In developing the demand response auction, the approach has been to facilitate participation by current demand response providers, potential new participants and new technologies. Authorization for demand response auctions is similar to the authorization for the transmission rights markets where a financial market participant is only required to execute a participation agreement and file a deposit with the IESO prior to auction participation.

Participants that are successful through a demand response auction (i.e. receive a demand response capacity obligation) will be required to register their facilities with the IESO and deliver the demand

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

response capacity obligation as an hourly demand response resource or as a dispatchable load.

Discussion

Chapter 2 – New Class of Market Participant

It is proposed to add a new class of market participant in the market rules solely for participation in demand response auctions. This addition includes:

- Chapter 2, section 2.1.1.10: New market participant class – “demand response auction participant”;
- Chapter 11, definitions: A new defined term for “demand response auction participant,” which means a person authorized to participate only in a demand response auction;
 - A new defined term for “demand response auction” will also be included in Chapter 11 to mean the auction operated by the IESO to procure demand response capacity.

A person wishing to submit offers into a demand response auction would apply to be authorized as a “demand response auction participant.” This would require application and authorization through the IESO’s market registration process and payment of the applicable application fees. The proposed definition of demand response auction participant will allow facilities able to provide demand response capacity to take part in the auction prior to completing facility registration with the IESO.

Further to the application for authorization of demand response auction participants, the IESO proposes to exclude the obligation under section 3.1.2.2 for applicants to submit either the federal harmonized value-added tax system registration number or proof of their exemption to the payment. This exclusion further aligns a demand response auction participant with the obligations of financial market participants.

Appendix 2.2 –Communication Requirements

In the Capacity Based Demand Response market rule amendments (MR-00408-R00), the IESO obligated demand response market participants to maintain a telephone and email address in order to ensure communication is maintained between the IESO and those participating in the capacity based demand response program. With the expansion of the definition a demand response market participant to include a market participant with a demand response capacity obligation, the IESO proposes to amend section 1.1.6A of Appendix 2.2 to limit the applicability of the section to demand response market participants that are only participating in the capacity based demand response program.

The IESO proposes the following amendments to sections 1.3.1 and 1.4.1 of Appendix 2.2 which details the obligations to install and maintain a dispatch workstation and a participant workstation.

Dispatch Workstations (section 1.3.1):

- Clarify that demand response market participants participating only in the capacity based demand response program or having a demand response capacity obligation delivered through an hourly demand response resource will be excluded from the obligation to install and maintain a dispatch workstation; and
- Exclude the obligation to install and maintain a dispatch workstation for demand response auction participants.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Participant Workstation (section 1.4.1):

- Clarify that demand response market participants participating only in the capacity based demand response program will be excluded from the obligation to install and maintain a participant workstation.

Demand response auction participants will be required to install and maintain a participant workstation in accordance with section 1.4.1 of Appendix 2.2 in order to communicate with the IESO and submit offers during their participation in a demand response auction. The details and requirements for participant workstations are outlined in the [Participant Technical Reference Manual](#).

Chapter 7

It is proposed to insert new section 18, “Demand Response Auctions” into chapter 7 of the market rules as follows:

Section 18.1 – Purpose of Demand Response Auctions

- Insert section 18.1.1 to specify that demand response auctions will be for the purpose of procuring demand response capacity in Ontario through a competitive auction process.
- Insert section 18.1.2 to obligate the IESO to publish the target amount of demand response capacity that will be procured through each demand response auction, the process will be detailed in the applicable market manual.

Section 18.2 – Participation in Demand Response Auctions

- Insert section 18.2.1 to specify that prerequisites for participation in a demand response auction are to become authorized as a demand response auction participant, submit to the IESO the amount of demand response capacity a participant is willing to provide and no less than five business days prior to the date which a demand response auction is to be conducted a participant must provide the IESO with a demand response auction deposit.
- Insert section 18.2.2 to specify chapters of the market rules that will **not** apply to demand response auction participants in order to avoid obligations in the market rules which should not be applicable to those participating only in a demand response auction:
 - Chapters 4, 5, and 6,
 - Chapter 7, other than this section 18
 - Chapters 8 and 10

All other market rules will apply to demand response auction participants unless explicitly identified in this section 18.2.2. This provision is similar to existing section 4.8.5 of Chapter 8, which specifies the market rules that are not applicable to financial market participants.

- Insert section 18.2.3 to obligate demand response auction participants that have successfully obtained a demand response capacity obligation through the demand response auction to become authorized as a demand response market participant.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Section 18.3 – Calculation of Demand Response Auction Deposits

Section 18.3.1 specifies that the IESO will calculate a demand response auction participant's demand response auction deposit, based on the amount of demand response capacity the demand response auction participant specifies they intend to offer in the demand response auction.

Section 18.4 – Demand Response Auction Deposits

This section specifies the manner in which demand response market participants may satisfy their deposit obligation, and is consistent with the acceptable forms for letters of credit allowable under the existing demand response security requirements in section 5A of Chapter 2, as well as the allowable forms for TR's (i.e. letters of credit or cash deposits) under section 4.8 of Chapter 8.

- Inset section 18.4.1 to specify that a demand response auction deposit must be submitted as either an irrevocable commercial letter of credit or a cash deposit.
- Insert section 18.4.2 to specify that the standard and IESO required provisions for letters of credit in the IESO markets:
 - Must be issued subject to either The Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600 or The International Standby Practices 1998;
 - The IESO shall be named as beneficiary in each letter of credit, each letter of credit shall be irrevocable, and partial draws on any letter of credit shall not be prohibited;
 - The only conditions for the IESO to draw on the letter of credit shall be the delivery of a certificate of an officer of the IESO that the IESO is entitled to draw on the letter of credit the amount owing to the IESO as specified in the certificate, as of the date of delivery of the certificate;
 - The letter of credit shall either provide for automatic renewal (unless the issuing bank advises the IESO at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one year. If the demand response deposit is not renewed ten (10) business days before the expiry of the letter of credit the IESO is entitled at that time to payment of the full amount of the letter of credit, once drawn upon it will be treated as a demand response deposit in the form of cash; and
 - The demand response auction participant represents and warrants to the IESO that the issuance of the letter of credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the demand response auction participant.
- Insert section 18.4.3 to specify that authorization for a demand response auction participant will be limited to the requirements outlined in this section 18.2.1.1 to 18.2.1.3 if the applicant has not applied or is not participating in any other IESO administered market.

Section 19 – Demand Response Market Participants with Demand Response Capacity Obligations

This section will introduce the ways in which a demand response market participant can fulfill a demand response capacity obligation and will include the applicable eligibility requirements. It is proposed to insert new section 19 "Demand Response Market Participants with Demand Response

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Capacity Obligations” into Chapter 7 as follows:

Section 19.1 – Purpose

- Insert section 19.1.1 to detail the purpose of section 19, which is to provide the details on the delivery of demand response capacity obligations.
- Insert section 19.1.2 to allow the delivery of a demand response capacity obligation through participation as an hourly demand response resource or as a dispatchable load.

Section 19.2 – Eligibility Requirements for Hourly Demand Response with a Demand Response Capacity Obligation

- Insert section 19.2.1 to specify that a demand response market participant will be eligible to participate as an hourly demand response resource, provided that the participant:
 - 19.2.1.1 – Demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual;
 - 19.2.1.2 – Registers its facilities and demand response contributors in accordance with the applicable market manual. The participant shall not make subsequent changes to that facility without pre-authorization from the IESO;
 - 19.2.1.3 – Satisfies the connection assessment requirements in section 6 of Chapter 4, if a connection assessment is required by the IESO in accordance with the applicable market manual;
 - 19.2.1.4 – Provides the appropriate prudential support in accordance with section 5 of Chapter 2.
- Insert section 19.2.2 and 19.2.3 to specify that the IESO may refuse or remove a demand response market participant, temporarily or permanently, if its resource’s continued participation would negatively impact the reliable operation of the IESO-controlled grid.
- Insert section 19.2.4 to specify chapters of the market rules that will **not** apply to demand response market participants that are authorized to participate only with an hourly demand response resource, in order to avoid obligations in the market rules which should not be applicable:
 - Chapter 2, sections 5A and 8;
 - Chapters 5, 6, 8, 10;
 - Chapter 7, section 7.

All other market rules will apply to demand response market participants participating only in the hourly demand response program unless explicitly identified in this section 19.2.4. For clarity, on a resource basis, a demand response market participant that is participating both as an hourly demand response resource and as a wholesale consumer that is a non-dispatchable load, must continue to meet the obligations throughout the market rules for non-dispatchable loads. The above market rule “carve-outs” are similar to existing section 17.2.4 of Chapter 7, which specifies the Chapters and sections not applicable to demand response market participants who participate only in the capacity based demand response program.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- Insert section 19.2.5 to allow non-dispatchable loads with a demand response capacity obligation to participate as an hourly demand response resource, if the non-dispatchable load meets the eligibility requirements of proposed section 19.2, as well as continuing to meet the requirements of a wholesale consumer that is a non-dispatchable load.

Section 19.3 – Eligibility Requirements for Dispatchable Loads with a Demand Response Capacity Obligation

- Insert section 19.3.1 to specify that a demand response market participant will be eligible to participate as a dispatchable load to fulfill a demand response capacity obligation, provided that the participant:
 - 19.3.1.1 – Demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual;
 - 19.3.1.2 – is authorized as a wholesale consumer;
 - 19.3.1.3 – Registers its facilities in accordance with the wholesale consumer registration requirements for dispatchable loads. The participant shall not make subsequent changes to that facility without pre-authorization from the IESO;
 - 19.3.1.4 – Satisfies the connection assessment requirements in section 6 of Chapter 4, if a connection assessment is required by the IESO in accordance with the applicable market manual;
 - 19.3.1.5 – Provides the appropriate prudential support in accordance with section 5 of Chapter 2.
- Insert section 19.3.2 and 19.3.3 to specify that the IESO may refuse or remove a demand response market participant, temporarily or permanently, if its resource's continued participation would negatively impact the reliable operation of the IESO-controlled grid.

Chapter 11 – Defined Terms:

In addition to the new defined term “demand response auction participant,” the following new defined terms are required for the implementation of a demand response auction and for the delivery of a demand response capacity obligation:

- “demand response auction” means the auction operated by the IESO to procure demand response capacity, pursuant to section 18 of Chapter 7.
- “demand response auction deposit” means the deposit required to be made by a demand response auction participant pursuant to section 18 of Chapter 7 as a condition of participating in a demand response auction.
- “demand response capacity” means the expected quantity of load reduction a demand resource can provide during a specified availability window and commitment period of a demand response auction, and excludes energy transacted through the energy market.
- “demand response capacity obligation” means the amount of demand response capacity that a demand response market participant is obligated to provide during the applicable availability

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

window and commitment period after the completion of a demand response auction.

- “hourly demand response” means the proposed resource type described in section 19 of Chapter 7 for the delivery, on an hourly basis, of a demand response capacity obligation obtained through a demand response auction.

The IESO proposes to amend the definition of “demand response contributor” to include the delivery of a demand response capacity obligation with an hourly demand response resource. The current definition relates only to the delivery of a contracted monthly MW under the capacity based demand response program.

Furthermore the IESO proposes to amend the definition of “demand response market participant” in order to incorporate the delivery of demand response capacity obligations. In addition, the IESO will remove the obligation for a demand response market participant to be either a demand response aggregator or demand response direct participant which is not a requirement for all existing types of demand response participation.

PART 4 – PROPOSED AMENDMENT

Chapter 2

2. Classes of Market Participants

2.1.1 The following classes of persons may apply for authorization to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid*:

2.1.1.1 *generators;*

2.1.1.2 *distributors;*

2.1.1.3 *wholesale sellers;*

2.1.1.4 *wholesale consumers;*

2.1.1.5 *retailers;*

2.1.1.6 *transmitters;*

2.1.1.7 *financial market participants; and*

2.1.1.8 [Intentionally left blank – section deleted]

2.1.1.9 *demand response market participants; and*

2.1.1.10 *demand response auction participants.*

3. Application for Authorization

- 3.1.1 A person who wishes to be authorized by the *IESO* to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid* must file a completed *application for authorization to participate*.
- 3.1.2 The application for authorization to participate shall be accompanied by:
- 3.1.2.1 the non-refundable application fee established from time to time by the *IESO* to defray the costs of processing the application; and
- 3.1.2.2 unless the *application for authorization to participate* is submitted in respect of an applicant that is applying for authorization to participate in the *IESO-administered markets* solely as a *financial market participant* or a demand response auction participant, either:
- the federal harmonized value-added tax system registration number issued to the applicant by the Canada Customs and Revenue Agency; or
 - where the applicant is resident in Canada and is, by virtue of *applicable law*, not liable to pay the federal harmonized value-added tax under Part IX of the *Excise Tax Act* (Canada), such documentation as may be prescribed in the *Excise Tax Act* (Canada) or described in the policies of the Canada Customs and Revenue Agency to support the exemption from such liability to pay.

Appendix 2.2 – Technical Requirements: Voice Communication, Monitoring and Control, Workstations and Re-Classification of Facilities

- 1.1.6A Each *demand response market participant* participating in the capacity based demand response program shall provide to the *IESO* and maintain one commercially available telephone and electronic mail address for the purposes of communicating with the *IESO*.

1.3 Dispatch Workstations

- 1.3.1 Each *market participant* other than a *boundary entity* ~~or~~, a demand response auction participant, or a demand response market participant participating in either the capacity based demand response program or with a demand response

capacity obligation through an hourly demand response resource shall, for the purposes of:

- 1.3.1.1 the provision to the *IESO* of real-time information required by the *IESO* to direct the operations of the *IESO-controlled grid*;
- 1.3.1.2 if the person is or will be subject to dispatch by the *IESO*, the receipt of *dispatch instructions*; and
- 1.3.1.3 the exchange with the *IESO* of other information required to be submitted or received pursuant to Chapter 7 or Chapter 8, other than the submission, receipt of confirmation of and validation of *dispatch data*, *TR bids* or *TR offers* in the *TR market* and *physical bilateral contract data*,

provide, install and maintain a *dispatch workstation* that meets the specifications and other requirements set forth in the *participant technical reference manual* and that is configured to support communication with the real-time communication network channel or channels provided by the *IESO* in the manner described in the *participant technical reference manual*.

.....

1.4 Participant Workstations

- 1.4.1 Subject to section 1.6, each *market participant* other than a *demand response market participant* participating only in the capacity based demand response program shall, for the purposes of conducting secure communications or transactions with the *IESO* using *IESO*-supplied or approved software, provide, install and maintain a *participant workstation* that meets the specifications, definitions and other requirements set forth in the *participant technical reference manual*.
-

Chapter 7

18. Demand Response Auctions

18.1 Purpose of Demand Response Auctions

- 18.1.1 The demand response auction will procure demand response capacity through a competitive auction.

18.1.2 The *IESO* shall specify and *publish* a target capacity amount to be procured in each *demand response auction*, as specified in the applicable *market manual*.

18.2 Participation in Demand Response Auctions

18.2.1 No person may participate in a *demand response auction* nor receive a *demand response capacity obligation* unless that person has:

18.2.1.1 been authorized by the *IESO* as a *demand response auction participant* in accordance with section 3 of Chapter 2;

18.2.1.2 submitted and has been approved by the *IESO*, using forms and procedures as may be established by the *IESO* in the applicable *market manual*, the amount of *demand response capacity* that the *demand response auction participant* is willing to provide; and

18.2.1.3 no less than five *business days* prior to the date on which a *demand response auction* is to be conducted, provided to the *IESO* a *demand response auction deposit*, in one or both of the forms set forth in section 18.4.

18.2.2 The following provisions of the *market rules* shall not apply to a *demand response auction participant* that is authorized by the *IESO* to participate only in a *demand response auction*:

18.2.3.1 Chapters 4, 5, and 6;

18.2.3.2 Chapter 7 other than this section 18; and

18.2.3.3 Chapters 8 and 10.

18.2.3 A *demand response auction participant* who obtains a *demand response capacity obligation* through a *demand response auction* shall apply to become authorized by the *IESO* as a *demand response market participant* in accordance with section 3 of Chapter 2.

18.3 Calculation of Demand Response Auction Deposits

18.3.1 Upon receipt of a *demand response auction participant's demand response capacity* under section 18.2.1.2, the IESO shall determine for each *demand response auction participant*, a *demand response auction deposit* for a *demand response auction* as specified in the applicable *market manual*.

18.4 Demand Response Auction Deposits

18.4.1 A *demand response auction deposit* shall be in one or both of the following forms:

18.4.1.1 an irrevocable commercial letter of credit provided by a bank named in a Schedule to the *Bank Act*, S.C. 1991, c. 46; or

18.4.1.2 a cash deposit made with the IESO by or on behalf of the *demand response auction participant*.

18.4.2 Where all or part of a *demand response auction deposit* is in the form of a standby letter of credit, the following provisions shall apply:

18.4.2.1 the letter of credit shall provide that it is issued subject to either The Uniform Customs and Practice for Documentary Credits, 1993 Revision, ICE Publication No. 500 or The International Standby Practices 1998;

18.4.2.2 the IESO shall be named as beneficiary in the letter of credit, the letter of credit shall be irrevocable and partial draws on the letter of credit shall not be prohibited;

18.4.2.3 the only condition on the ability of the IESO to draw on the letter of credit shall be the delivery of a certificate of an officer of the IESO that a specified amount is owing by the *demand response auction participant* to the IESO and that, in accordance with the provisions of the *market rules*, the IESO is entitled to payment of that specified amount as of the date of delivery of the certificate;

18.4.2.4 the letter of credit shall either provide for automatic renewal (unless the issuing bank advises the IESO at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one (1) year. Where the IESO is advised that a letter of credit is not to be renewed or the term of the letter of credit is to expire, the *demand response auction participant* shall arrange for and deliver additional *demand response auction deposits* if the *demand response auction participant* intends to continue to participate in a *demand response auction*. If such additional *demand response auction deposits* are not received by the IESO ten (10) business days before the expiry of a letter of credit, the IESO shall be entitled as of that time to payment of the full face amount of the letter of credit which amount,

once drawn by the IESO, shall be treated as a demand response auction deposit in the form of cash; and

18.4.2.5 by including a letter of credit as part of a demand response auction deposit, the demand response auction participant represents and warrants to the IESO that the issuance of the letter of credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the demand response auction participant.

18.4.3 Notwithstanding any other provision of these market rules, a person that applies for authorization to participate in the demand response auction and that has not applied for authorization to participate, or is not participating, in any other IESO-administered market shall not be required to comply with any requirements for authorization other than those set forth in sections 18.2.1.1 to 18.2.1.3.

19. Demand Response Market Participants with Demand Response Capacity Obligations

19.1 Purpose

19.1.1 This section details the delivery of a demand response capacity obligation obtained through a demand response auction.

19.1.2 A demand response market participant who receives a demand response capacity obligation obtained through a demand response auction shall deliver into the IESO-administered market via resources registered as:

19.1.2.1 hourly demand response; or

19.1.2.2 a dispatchable load.

19.2 Eligibility Requirements for Hourly Demand Response Resources with Demand Response Capacity Obligations

19.2.1 A demand response market participant is eligible to participate as an hourly demand response resource provided that the demand response market participant:

19.2.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation obtained through a demand response auction, as specified in the applicable market manual;

- 19.2.1.2 registers its facilities and demand response contributors as applicable, to the satisfaction of the IESO, in accordance with the applicable market manual. The demand response market participant shall not modify, vary or amend in any material respect any of the features or specifications of any resource without first requesting IESO authorization and approval in accordance with the applicable market manual;
- 19.2.1.3 satisfies the connection assessment requirements in accordance with section 6 of Chapter 4, if required by the IESO, in accordance with the applicable market manual;
- 19.2.1.4 has provided prudential support in accordance with section 5 of Chapter 2.
- 19.2.2 The IESO may refuse participation of an hourly demand response resource by a demand response market participant if the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.
- 19.2.3 The IESO may remove a demand response market participant's hourly demand response resource from market participation if the resource's continued participation would negatively impact the reliable operation of the IESO-controlled grid. The IESO may temporarily remove a demand response market participant's hourly demand response resource from market participation if the conditions on the IESO-controlled grid are such that the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.
- 19.2.4 The following provisions of the market rules shall not apply to a demand response market participant that is authorized by the IESO to participate only with an hourly demand response resource and is not a wholesale consumer that is a non-dispatchable load:
- 19.2.4.1 Chapter 2, sections 5A and 8;
- 19.2.4.2 Chapters 5, 6, 8, 10; and
- 19.2.4.3 Chapter 7 section 7.
- 19.2.5 A wholesale consumer that is a non-dispatchable load may participate as an hourly demand response resource to fulfill a demand response capacity obligation, provided that the non-dispatchable load meets all the applicable eligibility requirements of this section 19.2, and the requirements in the market rules that are applicable to a wholesale consumer that is a non-dispatchable load.

19.3 Eligibility Requirements for Dispatchable Loads with a Demand Response Capacity Obligation

- 19.3.1 A demand response market participant is eligible to participate as a dispatchable load in satisfying its demand response capacity obligation, provided that the demand response market participant:
- 19.3.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation obtained through a demand response auction, as specified in the applicable market manual;
 - 19.3.1.2 is authorized as a wholesale consumer;
 - 19.3.1.3 registers its facilities in accordance with the registration requirements for wholesale consumers that are dispatchable loads. The demand response market participant shall not modify, vary or amend in any material respect any of the features or specifications of any resource without first requesting IESO authorization and approval in accordance with the applicable market manual;
 - 19.3.1.4 satisfies the connection assessment requirements in accordance with section 6 of Chapter 4, if required by the IESO in accordance with the applicable market manual;
 - 19.3.1.5 has provided prudential support in accordance with section 5 of Chapter 2.
- 19.3.2 The IESO may refuse participation of a dispatchable load's resource by a demand response market participant if the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.
- 19.3.3 The IESO may remove a demand response market participant's dispatchable load resource if the resource's continued participation would negatively impact the reliable operation of the IESO-controlled grid. The IESO may temporarily remove a demand response market participant's dispatchable load resource if the conditions on the IESO-controlled grid are such that the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.

Chapter 11

demand response auction means the auction operated by the IESO to procure demand response capacity, in accordance with section 18 of Chapter 7;

demand response auction participant means a person who is a market participant

that is authorized to participate only in a demand response auction;

demand response auction deposit means the deposit required to be made by a demand response auction participant in accordance with section 18 of Chapter 7, as a condition of participating in a demand response auction;

demand response capacity means the expected quantity of load reduction a demand resource can provide during a specified availability window and commitment period for a demand response auction, and excludes energy transacted through the energy market;

demand response capacity obligation means the amount of demand response capacity that a demand response market participant is obligated to provide during the applicable availability window and commitment period, following a demand response auction;

demand response contributor means an interruptible load or behind the meter generator that is owned by a demand response direct participant, or with whom a demand response aggregator has enforceable rights, and in either case, who will provide a portion of the monthly contracted MW for the contracted dispatch period as outlined in the demand response schedule. A demand response contributor also means the delivery of a demand response capacity obligation with an hourly demand response resource, in which case a monthly contracted MW is replaced by a demand response capacity obligation;

demand response market participant means a person who is a market participant ~~that is a demand response aggregator or demand response direct participant~~ that participates only in the capacity based demand response program, ~~or the demand response pilot program,~~ or is a person with a demand response capacity obligation;

hourly demand response means the resource type described in section 19 of Chapter 7, that is used by the IESO as a delivery type, on an hourly basis, for a demand response capacity obligation obtained through a demand response auction;

PART 5 – IESO BOARD DECISION RATIONALE

The amendments enable the participant authorization and facility registration requirements for Demand Response Auctions, which will allow for the future competitive procurement and development of demand response in Ontario.



Market Rule Amendment Proposal Demand Response

Resolute Thunder Bay

February 12th, 2019



RESOLUTE PULP AND PAPER

Resolute is a global leader in the forest products industry with a diverse range of products, including newsprint, specialty papers, market pulp and wood products. The Company owns and/or operates over 40 pulp and paper mills and wood products facilities as well as power generation assets in Canada (Quebec and Ontario) and the United States.

In Ontario, Resolute's operations include an integrated facility that produces kraft pulp, newsprint from thermomechanical pulp and electricity from cogeneration, three sawmills as well as one pellet plant. These facilities are located in the Northwest region and provide 900 direct jobs, as well as contributing to approximately 3000 indirect jobs.

Thunder Bay is one of Resolute's most significant pulp and paper operations. The mill is a local landmark, operating since 1919. While name and ownership of the facility have changed over the years, its importance to the local community as an employer, taxpayer, community supporter and engaged neighbour has been ongoing.

Resolute Pulp and Paper Operations – Thunder Bay, Ontario Division

- Produces Newsprint
- Produces both NBSK & NBHK Market Pulp
- Produces green renewable power that it sells back to the Province as part of a PPA.

WHY ARE WE HERE ?

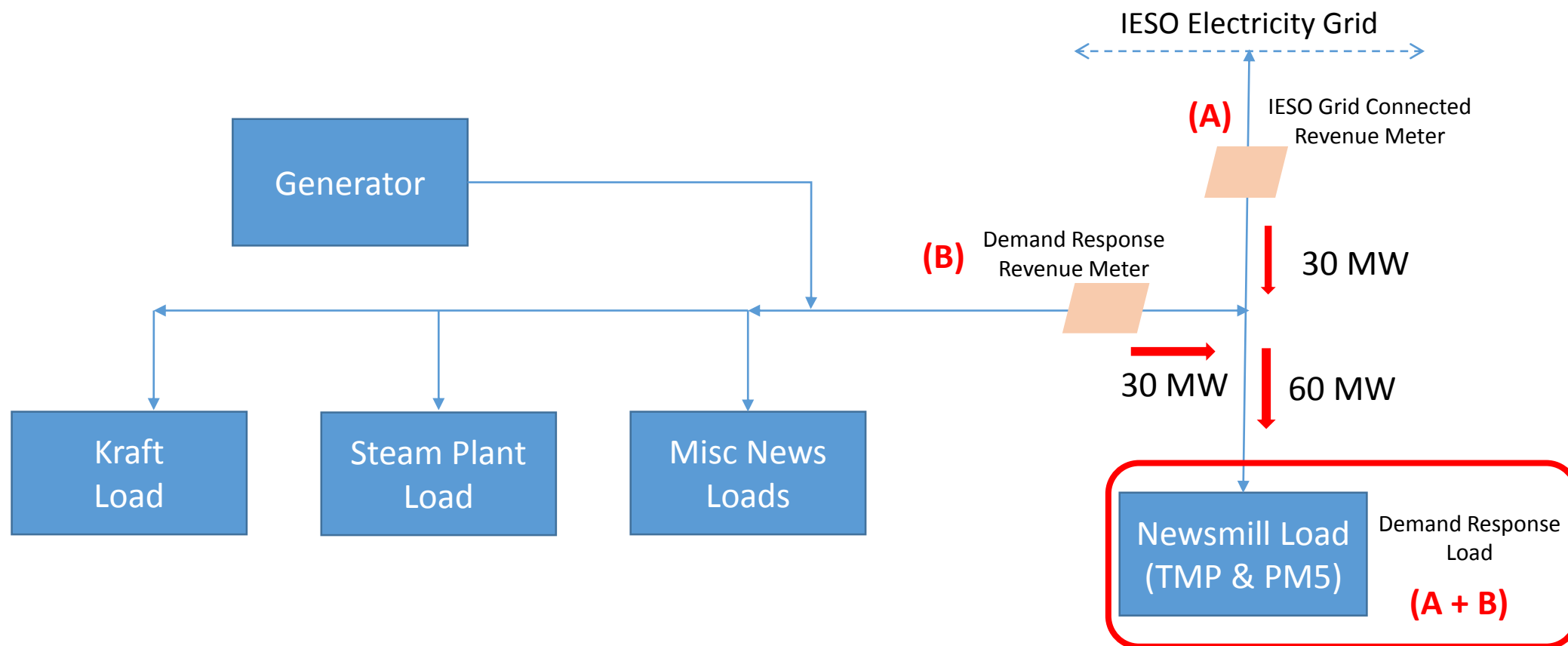
- Resolute has been providing DR to the IESO under the DR2 and DR3 programs created by the IESO's predecessor, the OPA, as well as under the CBDR program and the current DR auction.
- Resolute registered the Thunder Bay news-mill manufacturing facility as the DR Program resource. To do this, Resolute made use of two revenue-grade electricity meters.
 - This configuration was reviewed, accepted, and approved by the IESO.
 - The IESO registered Resolute based on this configuration in the DR-A program.
 - Resolute's DR Capacity was approved by the IESO based on this configuration.

REGISTRATION HISTORY

- October 2015: IESO accepted Resolute's registration into DR-A program.
- December 2015: IESO awarded Resolute a Capacity Obligation based on Resolute's accepted submission.
- June 2017: IESO staff changed its interpretation of the Market Rules.
- August 2017: Resolute learned that the IESO staff was now applying an incorrect interpretation to calculate Resolute's baseline and load change in response to DR activation, which differed from the calculation accepted by the IESO at registration.
- No Market Rule change drove the IESO staff's new interpretation; IESO staff merely changed their position.

SIMPLIFIED OVERVIEW OF RESOLUTE ELECTRICAL DISTRIBUTION

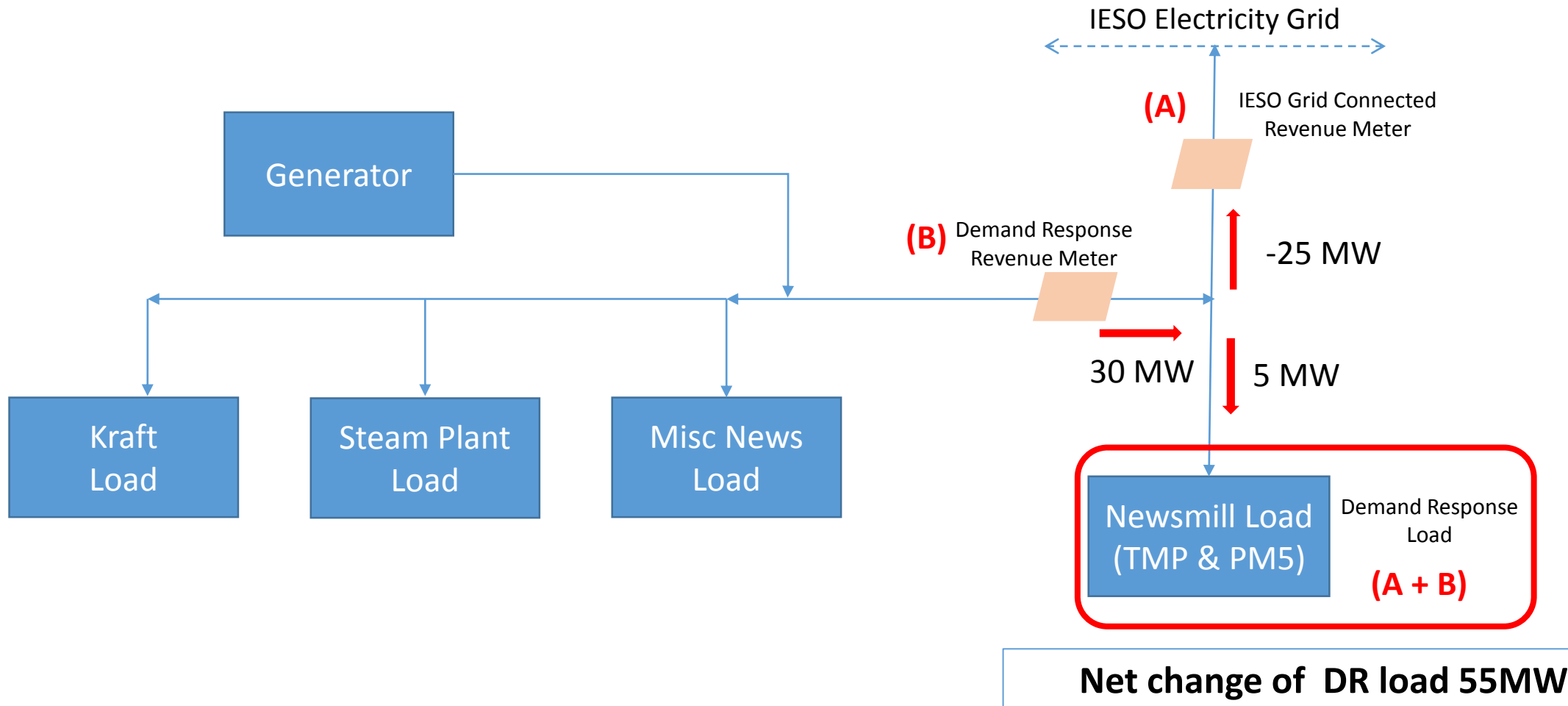
Normal Operation



Demand Response (DR) Baseline load: 60 MW

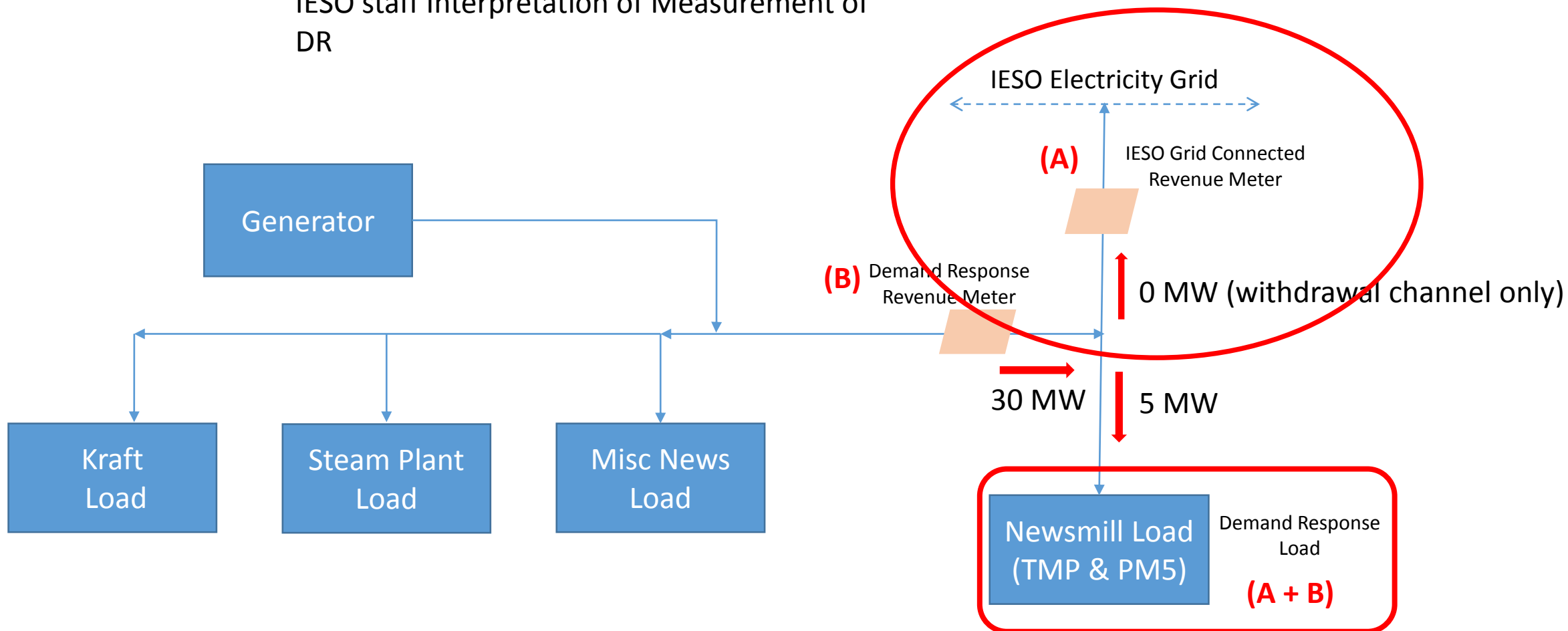
SIMPLIFIED OVERVIEW OF RESOLUTE ELECTRICAL DISTRIBUTION

After DR Activation: Actual



SIMPLIFIED OVERVIEW OF RESOLUTE ELECTRICAL DISTRIBUTION

IESO staff Interpretation of Measurement of DR



Actual change of DR load: 55 MW
IESO's Measurement of change of load: 30 MW

RESULT

- The IESO staff's new interpretation has the impact of changing the Market Rules.
- IESO staff is underestimating the load reduction that the Ontario grid is experiencing when Resolute sheds load.
- The IESO staff is reading only one channel, of only one revenue meter. The Market Rules do not provide for these measurement limitations as applied by IESO staff.

SUMMARY OF RESOLUTE'S POSITION

1. Resolute's position is consistent with the Market Rules; IESO staff's change in position is not based on any Market Rule provisions. Resolute's Market Rule amendment submission clarifies, but does not change the purpose or intent of the DR programs (see proposed revisions on slides 10 and 11).
2. Infrastructure to measure load exists and was approved by OPA and used in DR programs from 2013 onwards until staff's change in position.
3. By shutting down our operation Resolute is fulfilling the intent of the DR program and reducing the load to the grid by 50+ MW.
4. Although the Ontario grid is seeing the benefit of a 50+MW load reduction the interpretation from the IESO staff only acknowledges a 30 MW reduction.

MARKET RULE AMENDMENT SUBMISSION - 1

The Market Rules do not support IESO staff's position. For greater certainty, Resolute proposes Chapter 7, s. 18.2 and s.19.2.1.1 of the Market Rule at be amended to as follows (changes underlined):

- Chapter 7, 18.2.1.4: “For greater certainty, with respect to determining a *demand response market participant's demand response capacity*, nothing in this Rule shall be used to differentiate between meters that connect *demand response market participants* to the IESO-administered grid and meters that measure self-generation.”

MARKET RULE AMENDMENT SUBMISSION - 2

- Chapter 7, 19.2.1.1:

19.2.1 “A *demand response market participant* is eligible to participate as an *hourly demand response* resource provided that the *demand response market participant*:

19.2.11 demonstrates to the satisfaction of the *IESO* that it can provide the *demand response capacity obligation*, as specified in the applicable *market manual*, without differentiation by the IESO between meters that connect *demand response market participants* to the IESO-administered grid and meters that measure self-generation.”

QUESTIONS ?

IESOTP 286-5b

DEMAND RESPONSE AUCTIONS – OVERVIEW

Technical Panel
January 20th, 2015

INTRODUCTION

What is the IESO's goal for demand response?

- “Achieve greater value and economic use of DR through improved integration of existing DR contracts in the IESO-administered energy market and dispatch process, and over the longer term through the expansion of DR market participant categories.”

DEMAND RESPONSE PROGRESS TO DATE

- IESO is transitioning wholesale DR from a program approach to a market approach
- Three streams of work will be undertaken to enable this:
 1. Implement market rules to transition DR3 contractual terms to a market structure (capacity-based demand response)
 - In-service March 4, 2015
 2. Implement a DR Auction mechanism to replace expiring OPA DR contracts, plus any additional needs identified
 - Target in service late 2015, for first capacity delivery in 2016
 3. Develop pilot programs to demonstrate capabilities of demand response to meet system needs (Load Following, Unit Commitment)
 - Target RFP released for submissions by end of February

BENEFITS OF A DR AUCTION

- An auction provides a competitive platform to allow for the selection of demand response resources
 - Allows for the entry of new, cost-competitive providers
- Provides flexibility to respond to changing conditions
- A stable transition provides learning opportunity for DR providers to be able to successfully compete in a full capacity auction

STAKEHOLDER CONSULTATION

- IESO has met with stakeholders throughout Q4 2014, holding four stakeholder engagement meetings and two webinars
- DR Auction Market Design proposal was developed with consideration for stakeholder feedback and Ontario's needs
- Market Design was published for stakeholder feedback in December, with comments due on January 15th

AUCTION DESIGN ELEMENTS

Eligibility	Market Participant Authorization
	Capacity Qualification
	Registration Requirements
Auction Parameters	Length of Forward Period
	Commitment Period
	Demand Curve
	Target Capacity Requirement
	Reference Price
	Maximum Auction Clearing Price
	Min/Max Cleared Capacity Limits
Performance	Auction Mechanics
	Resource Obligation
	Measurement & Verification
Settlements	Non-Performance Penalties and Set-offs
	Prudential Support
	Cost Recovery
	Payments

AUCTION DESIGN PROPOSAL HIGHLIGHTS

IESO will maintain ~500 MW of wholesale demand response

- Target MW requirement for each auction determined by IESO based on quantity of DR expiring from CBDR to maintain 500 MW target
- If additional needs identified through IESO forecasting and reliability studies then the target capacity will reflect this update

A Qualified Capacity (QCAP) calculation will value MW capacity contribution of different providers

- DR Auction targets demand-side MW that have an incremental impact on system needs

AUCTION DESIGN PROPOSAL HIGHLIGHTS

Forward period of five months

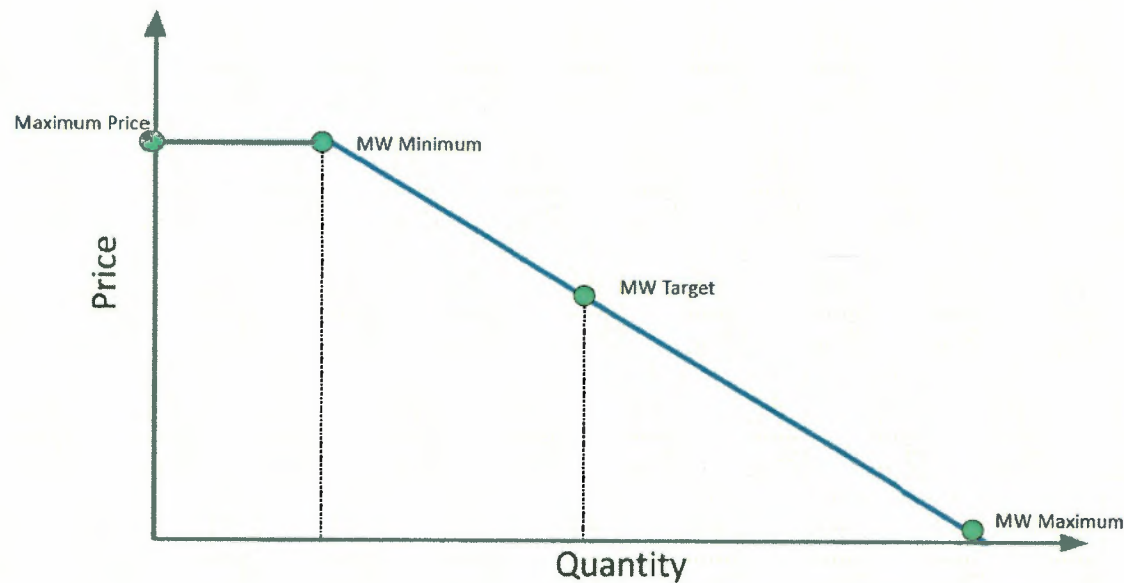
- Balance between greater business certainty and increased opportunities for new entrants

Seasonal commitment period

- Will provide greater flexibility for resources to offer into an auction in manner most consistent with capability
- Two seasons will be defined as:
 - Summer – May 1 to October 31
 - Winter – November 1 to April 30
- Auction for both seasons will be held at the same time
- Two separate clearing prices

AUCTION DESIGN PROPOSAL HIGHLIGHTS

MW will be procured in the Auction through the use of a downward-sloping demand curve.



AUCTION DESIGN PROPOSAL HIGHLIGHTS

DR resources with a DR auction obligation must participate in the energy market over the Availability Window.

- Must-Bid Requirement in Day-Ahead Commitment Process and real-time energy market
- Availability Window to be determined in detailed design

Cost recovery for the DR Auction is proposed to be allocated to consumers as a monthly uplift charge based on demand at system peak.

NEXT STEPS

- The Market Design will be finalized in February
- Stakeholders will be involved in detailed design discussions through Q1 and Q2 of 2015
- February 24th Technical Panel:
 - Request vote that 'high level' amendment submission warrants consideration for market rule changes to enable DR auctions
 - In coordination with stakeholdering efforts, more details on expected timing of draft market rule amendments for the various auction design elements
- Registration and Qualification for the Auction to begin in the fall
- Auction to take place in late November/early December for delivery in the first commitment period of May 2016

IESO Technical Panel Meeting 286 IESOTP 287-1

Final Minutes of Meeting

Date held: January 20, 2015	Time held: 9:00 am	Location held: Adelaide – 16 th Floor Boardroom
Invited/Attended	Company Name	Attendance Status (A)tended; (R)egrets; (S)ubstitute
Panel Members		
Edith Chin	Natural Gas Industry Rep.	A
Shelley Cunningham	Distributor Representative	A
Luis Marti	Transmitter Representative	A
Paul Huebner	Financial Services Representative	A
Brian Kelly	Generator Representative	A (via teleconference)
Robert Lake	Residential Consumer Rep.	A
Martin Longlade	Industrial Consumer Rep.	A
Kazi Marouf	Distributor Representative	A
Brian Rivard	IESO Representative	A
Peter Rowles	Commercial Consumer Rep.	A
Yannick Vennes	Retailers and Wholesalers Rep.	R
Bill Wilbur	Generator Representative	R
Mark Wilson	Chair	A
Stakeholder Observers		
Alexandra Campbell	IESO	A
Tom Chapman	IESO	A
Gordon Drake	IESO	A
Reena Goyal	IESO	A
Payam Farahbakhsh	Hydro One	A
Susan Harrison	IESO	A
Shane Litvack	IESO	A
Herman Mo	OPG	A
Mark Tinkler	Customized Energy Solutions	A
Gabriel Villegas	Bruce Power	A
Secretariat		
Jo Chung	IESO	A
John Rattray	IESO	A
Scribe: Josh Duru. Please report any corrections, additions or deletions e-mail to scribe.		

February 24, 2015

Public

IESO Technical Panel

Committee Chair: Mark Wilson

Mark.wilson@ieso.ca

All meeting material is available on the IESO web site at:

<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Technical-Panel/Technical-Panel.aspx>

Agenda Item 1: Administration

Agenda:

The agenda was approved.

Minutes and Action Items:

The Chair asked the Panel for any comments on the draft meeting minutes from the December 9, 2014, TP 285 meeting.

The natural gas representative stated that the last sentence of the last paragraph under Agenda Item 2, should be updated to read, "such as facilitating information flow on transportation, storage etc." The Chair responded that the IESO would include the requested edit in the final version of the minutes. The Panel unanimously approved the draft TP 285 minutes.

Chair Remarks:

The Chair informed the Panel that the recommendations from the Technical Panel Review have not gone before the IESO Board, and that no date has been set as to when it will go to the Board. The Board will be reviewing all of its stakeholder processes and principles, and the Technical Panel will be incorporated as part of that review.

The natural gas representative asked if the Chair of the new IESO Board has been selected. The Chair responded that the new Board Chair is James Hinds and that Tim O'Neil is the Vice-Chair.

The Chair informed the Panel that given the priorities of the new Board, that the Minor Amendment Omnibus 2014 (MR-00412-R00) will not go for Board approval on February 18th as planned, but will be delayed until its March 25, 2015 meeting.

As part of the merger, the Chair informed the Panel of changes to the administration of the Technical Panel process and introduced Alexandra Campbell (Manager, Stakeholder & Public Affairs) to provide the update. She informed the Panel that her group will be taking responsibility of the stakeholder engagement aspect of the market rules, specifically the Technical Panel administration. Susan Harrison will take responsibility of managing the stakeholding of market rules and the Technical Panel process. Actual market rule amendments will continue to be managed by Brian Rivard's Markets group. She added that there would be no significant changes to the process from the Panel members' perspective and that the IESO's objective was to better align the stakeholder engagement and market rule amendment processes with this change.

February 24, 2015

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IESO Technical Panel

Committee Chair: Mark Wilson

Mark.wilson@ieso.ca

The industrial consumer representative asked if the IESO could provide the Panel with a high level organizational chart. The Chair responded that the IESO will share that information with the Panel.

Agenda Item 2: Stakeholder Engagement Update

The purpose of this discussion was to inform the Panel of any status updates to current IESO stakeholder engagements:

- **Capacity Auction:** At the latest session on December 11, 2014 the IESO presented a draft high level design for stakeholder feedback, to which comments are due at the end of January. Stakeholder feedback will be incorporated into a completed high-level design.
- **Limiting Self-Induced CMSC for Generators Ramping Down (SE-111):** A revised design to limit self-induced CMSC for ramping down generators will be presented to stakeholders on January 22nd. The proposed solution will claw-back all CMSC during ramp-down to come offline and will compensate generators up to the level of their steady state operating cost (as represented by their offers immediately prior to ramp-down) when operating at or above MLP. This is an out-of-market payment with the advantage of being based on a competitive offer price and should avoid price distortion which can occur if a generator is required to put all their incremental costs in their offer prior to ramp-down. The IESO expects to initiate the market rule amendment process at the February 24th Panel meeting.
- **Transmission Rights Review:** Phase 1 of the TR review is complete and the implementation has begun and is expected to be completed in 2015. Phase 2 is intended to be a comprehensive review of the TR market. A number of potential enhancements to Ontario's real-time electricity market could impact the current design of the TR market. Stakeholders were informed in December 2014 that Phase 2 would be deferred until more information is known about the impacts of those initiatives.
- **Adequacy Reporting:** As the IESO is upgrading its publishing tool, this stakeholder engagement was launched in December 2014 to review efficiencies and opportunities for enhancements to some of the IESO's adequacy reports. The IESO will be reviewing potential changes to automation, publishing times and access to information. The IESO presented proposed changes to stakeholders via a webinar the week of January 12th, to which general feedback has been positive. The IESO is requesting that all feedback be provided by January 28th. Proposed changes will require market rule amendments and a presentation of potential changes will be brought to the Panel in the near future.

Agenda Item 3: Market Rule References to Safety, Environment and Applicable Law

MR-00413: Market Rule References to Safety, Environment and Applicable Law

IESO Support Staff	Josh Duru
Stakeholder Plan	N/A

The purpose of this discussion was to review draft amendment proposal MR-00413: Market Rule References to Safety, Environment and Applicable Law, (refer to documents IESOTP 286-

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IESO Technical Panel

Committee Chair: Mark Wilson

Mark.wilson@ieso.ca

3a, 3b, and 3c) and to request that the Panel vote to recommend the draft amendment proposal to the IESO Board for approval.

IESO staff informed the Panel of stakeholder comments received from the industrial consumer representative (refer to document IESOTP 286-3c), stating that based on the concerns raised within the stakeholder comments that the IESO amended sections 6.4.2 and 6.4.3.1 of Chapter 4 to remove the proposed references to applicable law. These sections will maintain the current reference to environment rather than applicable law.

The Chair asked if the industrial consumer was satisfied with the proposed changes to MR-00413-R00. The industrial consumer confirmed that he was content with the changes that have been made to the rule amendment.

The residential consumer representative asked if a market participant claims there is a violation of an environmental regulation, how the IESO would confirm that such a violation actually occurred. The Chair responded that generally, the IESO will rely on the market participant and take action based on the best information available in real-time. The IESO assumes that market participants will communicate and provide the most accurate information available.

The Chair requested the Panel's vote to recommend MR-00413-R00 to the IESO Board for approval. The Panel unanimously recommended MR-00413-R00 for IESO Board approval (including two proxy votes from the absent retailers and wholesalers representative and generator representative).

Agenda Item 4: Generation Facility Requirements

MR-00415: Generation Facility Requirements – Voltage Ride Through and Reactive Power	
IESO Support Staff	Stephen Burns & Josh Duru
Stakeholder Plan	N/A

The purpose of this discussion was to seek the Panel's recommendation that amendment submission MR-00415-Q00 warrants consideration with a regular priority, and to seek the Panel's concurrence to post draft amendment proposal MR-00415-R00 for stakeholder comment (refer to IESOTP 286-4a, 4b, 4c and 4d).

IESO staff walked the Technical Panel through the "Generator Voltage Ride Through and Reactive Capability" presentation (please refer to IESOTP 286-4d).

The residential consumers asked with respect to category 5 of Appendix 4.2, if a generator would be expected to provide 33 MW of reactive power for a 100 MW facility and asked how many generators currently have that capability. IESO staff responded that a 100 MW generator would be required to inject or absorb 33 MW of reactive power and that he expects that currently 90-95% of generators have this capability.

The residential consumer stated that early wind turbines would trip off and were not tolerant to voltage changes. IESO staff responded that not all wind turbines are made the same.

The industrial consumer representative asked, with respect to the change proposed for category 3 in Appendix 4.2, if the market rules define what a market participant may experience with capacitor switching. IESO staff responded that this information was in the market rules but at some point the requirement was moved into the Transmission System Code (TSC), the requirement was a maximum of 2 per unit. IESO staff informed the Panel that Hydro One/transmitters minimize the impact of ride through events but that the market rules and the TSC also place requirements on the generators.

The transmitter representative asked, with respect to proposed category 3 changes, if the IESO would consider defining high voltage and low voltage and whether they would be subject to true voltage as opposed to transient switching. IESO staff responded that this was a separate issue and outside of the scope of the proposed amendment.

In conclusion, the Chair requested the Panel vote that the amendment submission warrants consideration as a regular priority item and to post the amendment proposal for stakeholder comment and review until February 12, 2015. The Panel unanimously agreed (including two proxy votes from the absent retailers and wholesalers representative and generator representative) that MR-00415-Q00 warrants consideration and recommended to post MR-00415-R00 for stakeholder comment.

Agenda Item 5: Demand Response Auctions

The purpose of this discussion was to provide an update to the Panel on work completed to date by the IESO on Demand Response (DR), and to provide an overview of DR Auctions which will be brought to the Panel for consideration at the February 24th Panel meeting.

The industrial consumer representative asked if the IESO had conducted an assessment of DR auctions and whether it would provide an overall benefit to Ontario consumers. IESO staff responded that the DR auction will be a transitional step toward a full capacity auction and will allow benefits to be realized through the introduction of a competitive process between both demand and generators.

The industrial consumer representative then asked if there is a way to measure the benefits of a DR and capacity auction process. IESO staff responded that through stakeholdering efforts for the capacity auction, benefits were estimated. In order to realize those benefits, competition is necessary which will begin through the DR auction, and the IESO believes this will reduce rates. The IESO representative added that as competition is introduced, the price Ontario pays for DR and/or capacity with an auction process can then be compared to cost at which resources have historically been procured.

February 24, 2015

Public

IESO Technical Panel

Committee Chair: Mark Wilson

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The natural gas representative asked if the IESO was looking for 500 MW of DR for each auction period. IESO staff confirmed that the IESO was looking for a balance of 500 MW but that the number could be adjusted based on forecasts of need.

The financial services representative asked if the IESO was paying a price per MW for DR. IESO staff responded that the payment to DR providers will be monthly, based on dollars per MW per day.

The financial services representative asked how a DR provider makes a profit and if they will be paid on a daily basis, or only on the days that they are called upon. IESO staff responded that DR providers would be paid daily for the hours in which they make their capacity available for dispatch by the IESO, with the expectation that they are available. The hours of availability will be outlined in the detailed design. When a DR provider's capacity is unavailable (e.g. outages) there would be a clawback to their 'availability payment.'

The financial consumer representative asked how the bidding process for DR auctions will work, and whether the IESO is trying to incent new technologies. IESO staff responded that there would be an annual auction and auctions covering the summer and winter periods. As the IESO develops the detailed design there will be consideration given to allow providers to only offer for the peak periods. The design will need to recognize and understand the different kinds of DR that will become available, but is intended to achieve the target of qualified capacity at the lowest price on a technology neutral basis.

A distributor representative asked if there would be a minimum number of hours that DR capacity would need to be available. IESO staff responded that in order to receive their full availability payment, DR providers need to be available everyday within their availability period.

A distributor representative asked if the IESO was making provisions within the design for regional planning. IESO staff responded that within the design the IESO introduced the notion of zonal requirements for capacity and limits on the amount of capacity for certain regions. How those zones will be defined is still to be determined but the idea will be to define these zones as broadly as possible so that an auction will not limit the number of resources available. The IESO may need to develop a qualification process to determine how much, and what type of resources can be made available in specific regions.

The residential consumer asked for two practical examples of what resources could be used for DR. IESO staff responded that an industrial consumer could shift their demand to either weekends or nights. This type of participant would bid into the market at a price at which they no longer wish to consume and would look to shift their demand to a lower price/demand period. A second example would be an aggregator who combines a number of smaller loads,

who can provide a similar response but on a smaller scale, to provide the cumulative reduction in demand.

The financial services representative asked if there would be an energy payment and an availability payment. IESO staff responded that there would be no energy payment.

A distributor representative asked if the IESO could characterize the comments received to date from stakeholders. IESO staff responded that the bulk of comments have been related to the definition and qualification of capacity. Other comments were related to how the IESO would match capacity availability to the offers made into the market and also how the IESO will define and enforce offsets to the availability payment.

The natural gas representative asked if DR providers would be able to bid high in such a way to minimize the likelihood of being activated while receiving an availability payment and never performing. IESO staff responded that a provider could offer at \$1999 and that the capacity would be available to the IESO. If prices reach that point the IESO will expect that the resource is available. The IESO would like to ensure that during times of shortage there isn't a need to curtail load. Even though a participant bidding high would rarely be activated, in future auctions there will be other DR resources willing to provide DR for a lower cost, making those resources that choose to bid at high prices less competitive.

A distributor representative asked how the IESO will determine the availability payment. IESO staff responded that the availability payment would be based upon the offers into the auction. The IESO would set the demand threshold and once all qualified offers have been stacked, the lowest cost options will be selected until the MW threshold has been met. The availability payment will be based on the last offer required to meet the MW threshold.

The financial services representative asked how the IESO would measure the benefit of an auction versus the fixed payment for the amount of capacity that may never be exercised. IESO staff responded that the benefits would be realized over time by reducing the cost of procuring resources under a DR auction versus the historical costs of procuring resources without a DR auction. With new entry and competition, the expectation is that the price for availability payments will become lower over time versus the costs for long term contracts.

IESO staff noted that historically DR has been available at the top of the resource stack (i.e. a high priced resource), comparable to building another peaking generator with a high fixed cost. Analysis in other markets appears to indicate that prices for DR or other alternatives are far lower than building a dedicated unit.

The commercial consumer representative asked how the IESO would charge the market for the energy and DR procured through an auction. IESO staff responded that the costs will be recovered through the market as a separate uplift.

The natural gas representative asked for examples of 'non-performance.' IESO staff responded that if a DR provider has a bid in the system and was sent a dispatch instruction that they did not follow, that would be considered 'non-performance.' DR providers will have the same obligations as other resources with respect to following dispatch instructions.

The natural gas representative asked if there would a maximum number of days that a provider could be unavailable. IESO staff responded that availability payments would be clawed back and financial penalties for cumulative non-performance would be included in the program design.

The Chair noted that a majority of these questions are related to the detailed design of the program and that the IESO has committed to making this information available early in the market rule amendment process. The Chair encouraged Panel participation in the on-going DR auction stakeholder engagement.

Agenda Item 6 Other Business

None.

Next Panel Meeting: Tuesday February 24, 2015

Action Item Summary				
#	Date	Action	Status	Comments

February 24, 2015

Public

IESO Technical Panel

Committee Chair: Mark Wilson

Mark.wilson@ieso.ca

IESOTP 290-7b

Demand Response Auction

Participant Authorization and Facility Registration

Technical Panel
June 2, 2015

Jason Kwok, IESO

Agenda

- Overview
 - Objectives of a DR Auction
 - Stakeholder Engagement
 - Market Rule Timelines
- Market Rule Proposals
 - Participant Authorization and Facility Registration
- Next Steps

Overview

- The IESO is proposing market rule amendments in order to implement a Demand Response (DR) Auction
 - The Demand Response Auction is an enduring competitive procurement mechanism for capacity that will replace expiring demand response contracts and support the future development of economic demand response in Ontario
- The first DR Auction will be held in December 2015 for delivery in May 2016.

Overview: Objectives

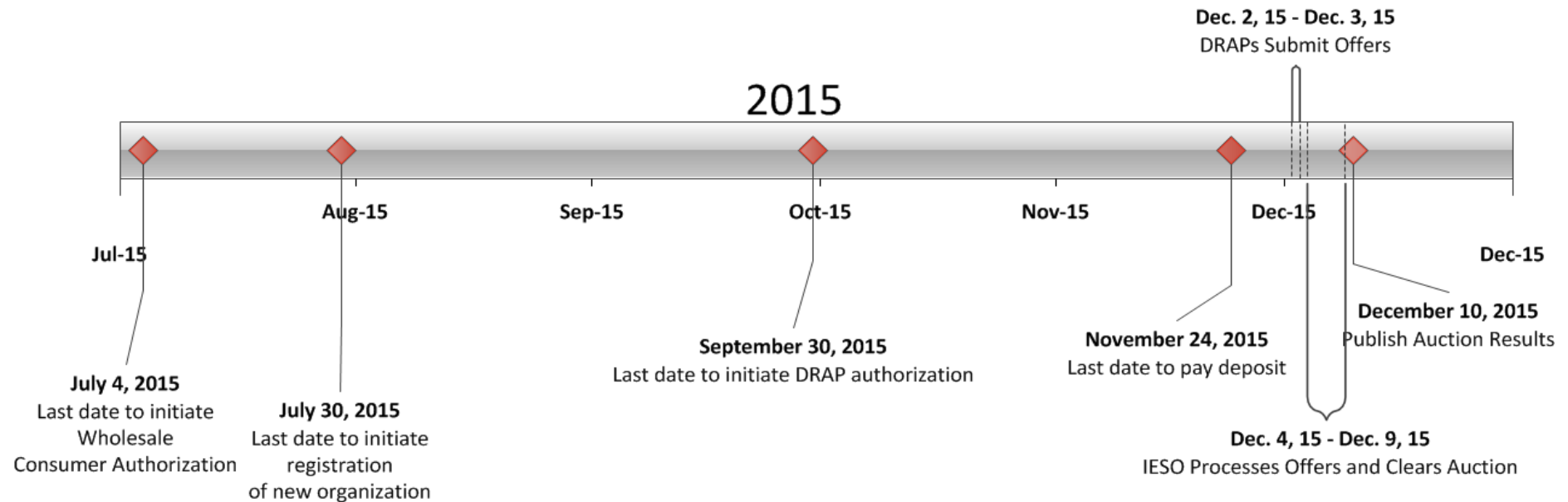
Key objectives for the DR Auction:

- Instituting a competitive, transparent platform that will allow for the selection of demand response resources based on price – securing DR at the lowest cost – and ability to grow and evolve to meet future system needs;
- Supporting the entry of new, cost-competitive providers;
- Driving innovation in a dynamic and growing sector;
- Providing flexibility to respond to changing market conditions;
- Creating a learning opportunity for demand response providers to be able to successfully compete in a full Capacity Auction.

Overview: Stakeholders

- DR Auction design has been developed in the context of an IESO Stakeholder Engagement:
 - IESO continues to work closely with stakeholders on all elements of the auction development, design and implementation
 - Further information on the engagement is available at the following link www.ieso.ca/sedrauction

Timeline



Market Rule Amendment Timelines

	<i>Participant Authorization Facility Registration</i>	<i>Auction Parameters Energy Market Participation</i>	<i>Settlements</i>
First redlined version of Market Rules presented to Technical Panel	June 2	July 7	August 11
Vote to Post for Stakeholder Comment			
Technical Panel Votes on a Recommendation to the IESO Board of Directors	July 7	August 11	September 22
Board of Directors Approve Proposed Market Rules	August 26	August 26	October 22
Effective dates	September 17	September 17	November 13

Participant Authorization and Facility Registration

- In order to attract the broadest range of potential DR providers, including current demand response providers as well as new entrants and new technologies, we have sought to reduce the requirements for participation in the auction
- Participants will be authorized to participate in the auction, and those that are successful will register facilities to meet their capacity obligations through participation in the energy market

Authorization and Registration Overview

- Three stages of market registration for the DR Auction:
 1. **Pre-Auction Authorization:** prospective auction participants will register to take part in the auction
 2. **Post-Auction Authorization:** auction participants who have successfully cleared in the auction will register to participate in the physical markets
 3. **Post- Auction Facility Registration:** physical market participants will register facilities in order to meet their auction obligations through the physical markets

Pre-Auction

Authorization as a Demand Response Market Participant

- Demand Response Auction Participant (Ch.2, s.2)
 - New market participant type will allow organizations to be able to participate in the DR Auction
 - Similar to TR authorization –required to execute a participation agreement and file a deposit with IESO prior to participation in the DR Auction

Post-Auction

Energy Market Authorization and Facility Registration

- Post-Auction requirements for participants who are successful in the auction
 - Become authorized as Demand Response Market Participant
 - Will be required to post Prudential Security and get access to IESO systems
 - Register facilities
 - Requirements will depend on the way in which an organization plans to deliver its DR Capacity Obligation

Post-Auction Facility Registration

- A Demand Response Market Participant can deliver their capacity obligation in two ways:
 - 5-minute Dispatchable Load
 - Hourly Demand Response
 - Will allow for participation by directly-connected non-dispatchable loads, aggregated and/or embedded loads
- Future proposed market rule amendments will outline other requirements (ex. energy market participation, settlement) for dispatchable load and Hourly DR respectively

Next Steps

- DR Auction stakeholder engagement initiative is in detailed design development phase
 - Final stakeholder meeting is expected on June 18
- IESO will bring two further submissions of market rule amendments that have been informed by stakeholder feedback
 - Auction Parameters and Energy Market Participation
 - Settlements



Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00416-R00		
Subject:	Demand Response Auctions		
Title:	Demand Response Auctions – Participant Authorization & Facility Registration		
Nature of Proposal:	☒ Alteration	☐ Deletion	☒ Addition
Chapters:	2, 7 & 11	Appendix:	2.2
Sections:	Chapter 2, section 2, 3, Chapter 7 section 18 (new), 19 (new), Chapter 11 definitions		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review	May 26, 2015
Approved Amendment Publication Date:		
Approved Amendment Effective Date:		

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

The IESO proposes to amend the market rules in order to implement a Demand Response Auction to allow for the future competitive procurement and development of demand response in Ontario.

Specifically, this amendment proposal will:

- Create a new market participant class, “demand response auction participant;”
- Specify the requirements to participate in a demand response auction, which include providing a demand response auction deposit;
- Specify that demand response auction participants who obtain a demand response capacity obligation through an auction, must become a demand response market participant;
- Provide details and eligibility for the delivery of demand response capacity obligations; and
- Specify that in order to deliver on a demand response capacity obligation, demand response market participants must satisfy the registration requirements as either a dispatchable load, or the requirements of an hourly demand response resource.

This proposal is based on the Demand Response Auction stakeholder engagement.

Further information on the Demand Response Auction stakeholder engagement can be found on the IESO’s website at:

<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Demand-Response-Auction.aspx>

Background

In order to participate in a demand response auction, existing market participants or new applicants must become authorized as a demand response auction participant. This market participant type will allow organizations to become authorized with the IESO for the purposes of participating in the auction and to be bound by the applicable IESO market rules. There are additional authorization and facility registration requirements for the IESO physical market for those auction participants that obtain a demand response capacity obligation from the auction.

In developing the demand response auction, the approach has been to facilitate participation by current demand response providers, potential new participants and new technologies. Authorization for demand response auctions is similar to the authorization for the transmission rights markets where a financial market participant is only required to execute a participation agreement and file a deposit with the IESO prior to auction participation.

Participants that are successful through a demand response auction (i.e. receive a demand response capacity obligation) will be required to register their facilities with the IESO and deliver the demand

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

response capacity obligation as an hourly demand response resource or as a dispatchable load.

Discussion

Chapter 2 – New Class of Market Participant

It is proposed to add a new class of market participant in the market rules solely for participation in demand response auctions. This addition includes:

- Chapter 2, section 2.1.1.10: New market participant class – “demand response auction participant”;
- Chapter 11, definitions: A new defined term for “demand response auction participant,” which means a person authorized to participate only in a demand response auction;
 - A new defined term for “demand response auction” will also be included in Chapter 11 to mean the auction operated by the IESO to procure demand response capacity.

A person wishing to submit offers into a demand response auction would apply to be authorized as a “demand response auction participant.” This would require application and authorization through the IESO’s market registration process and payment of the applicable application fees. The proposed definition of demand response auction participant will allow facilities able to provide demand response capacity to take part in the auction prior to completing facility registration with the IESO.

Further to the application for authorization of demand response auction participants, the IESO proposes to exclude the obligation under section 3.1.2.2 for applicants to submit either the federal harmonized value-added tax system registration number or proof of their exemption to the payment. This exclusion further aligns a demand response auction participant with the obligations of financial market participants.

Appendix 2.2 –Communication Requirements

In the Capacity Based Demand Response market rule amendments (MR-00408-R00), the IESO obligated demand response market participants to maintain a telephone and email address in order to ensure communication is maintained between the IESO and those participating in the capacity based demand response program. With the expansion of the definition a demand response market participant to include a market participant with a demand response capacity obligation, the IESO proposes to amend section 1.1.6A of Appendix 2.2 to limit the applicability of the section to demand response market participants that are only participating in the capacity based demand response program.

The IESO proposes the following amendments to sections 1.3.1 and 1.4.1 of Appendix 2.2 which details the obligations to install and maintain a dispatch workstation and a participant workstation.

Dispatch Workstations (section 1.3.1):

- Clarify that demand response market participants participating only in the capacity based demand response program or having a demand response capacity obligation delivered through an hourly demand response resource will be excluded from the obligation to install and maintain a dispatch workstation; and
- Exclude the obligation to install and maintain a dispatch workstation for demand response auction participants.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Participant Workstation (section 1.4.1):

- Clarify that demand response market participants participating only in the capacity based demand response program will be excluded from the obligation to install and maintain a participant workstation.

Demand response auction participants will be required to install and maintain a participant workstation in accordance with section 1.4.1 of Appendix 2.2 in order to communicate with the IESO and submit offers during their participation in a demand response auction. The details and requirements for participant workstations are outlined in the [Participant Technical Reference Manual](#).

Chapter 7

It is proposed to insert new section 18, “Demand Response Auctions” into chapter 7 of the market rules as follows:

Section 18.1 – Purpose of Demand Response Auctions

- Insert section 18.1.1 to specify that demand response auctions will be for the purpose of procuring demand response capacity in Ontario through a competitive auction process.
- Insert section 18.1.2 to obligate the IESO to publish the target amount of demand response capacity that will be procured through each demand response auction, the process will be detailed in the applicable market manual.

Section 18.2 – Participation in Demand Response Auctions

- Insert section 18.2.1 to specify that prerequisites for participation in a demand response auction are to become authorized as a demand response auction participant, submit to the IESO the amount of demand response capacity a participant is willing to provide and no less than five business days prior to the date which a demand response auction is to be conducted a participant must provide the IESO with a demand response auction deposit.
- Insert section 18.2.2 to specify chapters of the market rules that will **not** apply to demand response auction participants in order to avoid obligations in the market rules which should not be applicable to those participating only in a demand response auction:
 - Chapters 4, 5, and 6,
 - Chapter 7, other than this section 18
 - Chapters 8 and 10

All other market rules will apply to demand response auction participants unless explicitly identified in this section 18.2.2. This provision is similar to existing section 4.8.5 of Chapter 8, which specifies the market rules that are not applicable to financial market participants.

- Insert section 18.2.3 to obligate demand response auction participants that have successfully obtained a demand response capacity obligation through the demand response auction to become authorized as a demand response market participant.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Section 18.3 – Calculation of Demand Response Auction Deposits

Section 18.3.1 specifies that the IESO will calculate a demand response auction participant's demand response auction deposit, based on the amount of demand response capacity the demand response auction participant specifies they intend to offer in the demand response auction.

Section 18.4 – Demand Response Auction Deposits

This section specifies the manner in which demand response market participants may satisfy their deposit obligation, and is consistent with the acceptable forms for letters of credit allowable under the existing demand response security requirements in section 5A of Chapter 2, as well as the allowable forms for TR's (i.e. letters of credit or cash deposits) under section 4.8 of Chapter 8.

- Inset section 18.4.1 to specify that a demand response auction deposit must be submitted as either an irrevocable commercial letter of credit or a cash deposit.
- Insert section 18.4.2 to specify that the standard and IESO required provisions for letters of credit in the IESO markets:
 - Must be issued subject to either The Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600 or The International Standby Practices 1998;
 - The IESO shall be named as beneficiary in each letter of credit, each letter of credit shall be irrevocable, and partial draws on any letter of credit shall not be prohibited;
 - The only conditions for the IESO to draw on the letter of credit shall be the delivery of a certificate of an officer of the IESO that the IESO is entitled to draw on the letter of credit the amount owing to the IESO as specified in the certificate, as of the date of delivery of the certificate;
 - The letter of credit shall either provide for automatic renewal (unless the issuing bank advises the IESO at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one year. If the demand response deposit is not renewed ten (10) business days before the expiry of the letter of credit the IESO is entitled at that time to payment of the full amount of the letter of credit, once drawn upon it will be treated as a demand response deposit in the form of cash; and
 - The demand response auction participant represents and warrants to the IESO that the issuance of the letter of credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the demand response auction participant.
- Insert section 18.4.3 to specify that authorization for a demand response auction participant will be limited to the requirements outlined in this section 18.2.1.1 to 18.2.1.3 if the applicant has not applied or is not participating in any other IESO administered market.

Section 19 – Demand Response Market Participants with Demand Response Capacity Obligations

This section will introduce the ways in which a demand response market participant can fulfill a demand response capacity obligation and will include the applicable eligibility requirements. It is proposed to insert new section 19 "Demand Response Market Participants with Demand Response

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Capacity Obligations” into Chapter 7 as follows:

Section 19.1 – Purpose

- Insert section 19.1.1 to detail the purpose of section 19, which is to provide the details on the delivery of demand response capacity obligations.
- Insert section 19.1.2 to allow the delivery of a demand response capacity obligation through participation as an hourly demand response resource or as a dispatchable load.

Section 19.2 – Eligibility Requirements for Hourly Demand Response with a Demand Response Capacity Obligation

- Insert section 19.2.1 to specify that a demand response market participant will be eligible to participate as an hourly demand response resource, provided that the participant:
 - 19.2.1.1 – Demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual;
 - 19.2.1.2 – Registers its facilities and demand response contributors in accordance with the applicable market manual. The participant shall not make subsequent changes to that facility without pre-authorization from the IESO;
 - 19.2.1.3 – Satisfies the connection assessment requirements in section 6 of Chapter 4, if a connection assessment is required by the IESO in accordance with the applicable market manual;
 - 19.2.1.4 – Provides the appropriate prudential support in accordance with section 5 of Chapter 2.
- Insert section 19.2.2 and 19.2.3 to specify that the IESO may refuse or remove a demand response market participant, temporarily or permanently, if its resource’s continued participation would negatively impact the reliable operation of the IESO-controlled grid.
- Insert section 19.2.4 to specify chapters of the market rules that will **not** apply to demand response market participants that are authorized to participate only with an hourly demand response resource, in order to avoid obligations in the market rules which should not be applicable:
 - Chapter 2, sections 5A and 8;
 - Chapters 5, 6, 8, 10;
 - Chapter 7, section 7.

All other market rules will apply to demand response market participants participating only in the hourly demand response program unless explicitly identified in this section 19.2.4. For clarity, on a resource basis, a demand response market participant that is participating both as an hourly demand response resource and as a wholesale consumer that is a non-dispatchable load, must continue to meet the obligations throughout the market rules for non-dispatchable loads. The above market rule “carve-outs” are similar to existing section 17.2.4 of Chapter 7, which specifies the Chapters and sections not applicable to demand response market participants who participate only in the capacity based demand response program.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- Insert section 19.2.5 to allow non-dispatchable loads with a demand response capacity obligation to participate as an hourly demand response resource, if the non-dispatchable load meets the eligibility requirements of proposed section 19.2, as well as continuing to meet the requirements of a wholesale consumer that is a non-dispatchable load.

Section 19.3 – Eligibility Requirements for Dispatchable Loads with a Demand Response Capacity Obligation

- Insert section 19.3.1 to specify that a demand response market participant will be eligible to participate as a dispatchable load to fulfill a demand response capacity obligation, provided that the participant:
 - 19.3.1.1 – Demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual;
 - 19.3.1.2 – is authorized as a wholesale consumer;
 - 19.3.1.3 – Registers its facilities in accordance with the wholesale consumer registration requirements for dispatchable loads. The participant shall not make subsequent changes to that facility without pre-authorization from the IESO;
 - 19.3.1.4 – Satisfies the connection assessment requirements in section 6 of Chapter 4, if a connection assessment is required by the IESO in accordance with the applicable market manual;
 - 19.3.1.5 – Provides the appropriate prudential support in accordance with section 5 of Chapter 2.
- Insert section 19.3.2 and 19.3.3 to specify that the IESO may refuse or remove a demand response market participant, temporarily or permanently, if its resource's continued participation would negatively impact the reliable operation of the IESO-controlled grid.

Chapter 11 – Defined Terms:

In addition to the new defined term “demand response auction participant,” the following new defined terms are required for the implementation of a demand response auction and for the delivery of a demand response capacity obligation:

- “demand response auction” means the auction operated by the IESO to procure demand response capacity, pursuant to section 18 of Chapter 7.
- “demand response auction deposit” means the deposit required to be made by a demand response auction participant pursuant to section 18 of Chapter 7 as a condition of participating in a demand response auction.
- “demand response capacity” means the expected quantity of load reduction a demand resource can provide during a specified availability window and commitment period of a demand response auction, and excludes energy transacted through the energy market.
- “demand response capacity obligation” means the amount of demand response capacity that a demand response market participant is obligated to provide during the applicable availability

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

window and commitment period after the completion of a demand response auction.

- “hourly demand response” means the proposed resource type described in section 19 of Chapter 7 for the delivery, on an hourly basis, of a demand response capacity obligation obtained through a demand response auction.

The IESO proposes to amend the definition of “demand response contributor” to include the delivery of a demand response capacity obligation with an hourly demand response resource. The current definition relates only to the delivery of a contracted monthly MW under the capacity based demand response program.

Furthermore the IESO proposes to amend the definition of “demand response market participant” in order to incorporate the delivery of demand response capacity obligations. In addition, the IESO will remove the obligation for a demand response market participant to be either a demand response aggregator or demand response direct participant which is not a requirement for all existing types of demand response participation.

PART 4 – PROPOSED AMENDMENT

Chapter 2

2. Classes of Market Participants

2.1.1 The following classes of persons may apply for authorization to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid*:

2.1.1.1 *generators*;

2.1.1.2 *distributors*;

2.1.1.3 *wholesale sellers*;

2.1.1.4 *wholesale consumers*;

2.1.1.5 *retailers*;

2.1.1.6 *transmitters*;

2.1.1.7 *financial market participants*; ~~and~~

2.1.1.8 [Intentionally left blank – section deleted]

2.1.1.9 *demand response market participants*; ~~and~~

2.1.1.10 *demand response auction participants*.

.....

3. Application for Authorization

- 3.1.1 A person who wishes to be authorized by the *IESO* to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid* must file a completed *application for authorization to participate*.
- 3.1.2 The application for authorization to participate shall be accompanied by:
- 3.1.2.1 the non-refundable application fee established from time to time by the *IESO* to defray the costs of processing the application; and
- 3.1.2.2 unless the *application for authorization to participate* is submitted in respect of an applicant that is applying for authorization to participate in the *IESO-administered markets* solely as a *financial market participant* or a demand response auction participant, either:
- the federal harmonized value-added tax system registration number issued to the applicant by the Canada Customs and Revenue Agency; or
 - where the applicant is resident in Canada and is, by virtue of *applicable law*, not liable to pay the federal harmonized value-added tax under Part IX of the *Excise Tax Act* (Canada), such documentation as may be prescribed in the *Excise Tax Act* (Canada) or described in the policies of the Canada Customs and Revenue Agency to support the exemption from such liability to pay.

Appendix 2.2 – Technical Requirements: Voice Communication, Monitoring and Control, Workstations and Re-Classification of Facilities

- 1.1.6A Each *demand response market participant* participating in the capacity based demand response program shall provide to the *IESO* and maintain one commercially available telephone and electronic mail address for the purposes of communicating with the *IESO*.

1.3 Dispatch Workstations

- 1.3.1 Each *market participant* other than a *boundary entity* ~~or~~ a demand response auction participant, or a demand response market participant participating in either the capacity based demand response program or with a demand response

capacity obligation through an hourly demand response resource shall, for the purposes of:

- 1.3.1.1 the provision to the *IESO* of real-time information required by the *IESO* to direct the operations of the *IESO-controlled grid*;
- 1.3.1.2 if the person is or will be subject to dispatch by the *IESO*, the receipt of *dispatch instructions*; and
- 1.3.1.3 the exchange with the *IESO* of other information required to be submitted or received pursuant to Chapter 7 or Chapter 8, other than the submission, receipt of confirmation of and validation of *dispatch data*, *TR bids* or *TR offers* in the *TR market* and *physical bilateral contract data*,

provide, install and maintain a *dispatch workstation* that meets the specifications and other requirements set forth in the *participant technical reference manual* and that is configured to support communication with the real-time communication network channel or channels provided by the *IESO* in the manner described in the *participant technical reference manual*.

.....

1.4 Participant Workstations

- 1.4.1 Subject to section 1.6, each *market participant* other than a *demand response market participant* participating only in the capacity based demand response program shall, for the purposes of conducting secure communications or transactions with the *IESO* using *IESO*-supplied or approved software, provide, install and maintain a *participant workstation* that meets the specifications, definitions and other requirements set forth in the *participant technical reference manual*.
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Chapter 7

18. Demand Response Auctions

18.1 Purpose of Demand Response Auctions

- 18.1.1 The demand response auction will procure demand response capacity through a competitive auction.

18.1.2 The IESO shall specify and publish a target capacity amount to be procured in each demand response auction, as specified in the applicable market manual.

18.2 Participation in Demand Response Auctions

18.2.1 No person may participate in a demand response auction nor receive a demand response capacity obligation unless that person has:

18.2.1.1 been authorized by the IESO as a demand response auction participant in accordance with section 3 of Chapter 2;

18.2.1.2 submitted and has been approved by the IESO, using forms and procedures as may be established by the IESO in the applicable market manual, the amount of demand response capacity that the demand response auction participant is willing to provide; and

18.2.1.3 no less than five business days prior to the date on which a demand response auction is to be conducted, provided to the IESO a demand response auction deposit, in one or both of the forms set forth in section 18.4.

18.2.2 The following provisions of the market rules shall not apply to a demand response auction participant that is authorized by the IESO to participate only in a demand response auction:

18.2.3.1 Chapters 4, 5, and 6;

18.2.3.2 Chapter 7 other than this section 18; and

18.2.3.3 Chapters 8 and 10.

18.2.3 A demand response auction participant who obtains a demand response capacity obligation through a demand response auction shall apply to become authorized by the IESO as a demand response market participant in accordance with section 3 of Chapter 2.

18.3 Calculation of Demand Response Auction Deposits

18.3.1 Upon receipt of a *demand response auction participant's demand response capacity* under section 18.2.1.2, the *IESO* shall determine for each *demand response auction participant*, a *demand response auction deposit* for a *demand response auction* as specified in the applicable *market manual*.

18.4 Demand Response Auction Deposits

18.4.1 A *demand response auction deposit* shall be in one or both of the following forms:

18.4.1.1 an irrevocable commercial letter of credit provided by a bank named in a Schedule to the *Bank Act*, S.C. 1991, c. 46; or

18.4.1.2 a cash deposit made with the *IESO* by or on behalf of the *demand response auction participant*.

18.4.2 Where all or part of a *demand response auction deposit* is in the form of a standby letter of credit, the following provisions shall apply:

18.4.2.1 the letter of credit shall provide that it is issued subject to either The Uniform Customs and Practice for Documentary Credits, 1993 Revision, ICE Publication No. 500 or The International Standby Practices 1998;

18.4.2.2 the *IESO* shall be named as beneficiary in the letter of credit, the letter of credit shall be irrevocable and partial draws on the letter of credit shall not be prohibited;

18.4.2.3 the only condition on the ability of the *IESO* to draw on the letter of credit shall be the delivery of a certificate of an officer of the *IESO* that a specified amount is owing by the *demand response auction participant* to the *IESO* and that, in accordance with the provisions of the *market rules*, the *IESO* is entitled to payment of that specified amount as of the date of delivery of the certificate;

18.4.2.4 the letter of credit shall either provide for automatic renewal (unless the issuing bank advises the *IESO* at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one (1) year. Where the *IESO* is advised that a letter of credit is not to be renewed or the term of the letter of credit is to expire, the *demand response auction participant* shall arrange for and deliver additional *demand response auction deposits* if the *demand response auction participant* intends to continue to participate in a *demand response auction*. If such additional *demand response auction deposits* are not received by the *IESO* ten (10) *business days* before the expiry of a letter of credit, the *IESO* shall be entitled as of that time to payment of the full face amount of the letter of credit which amount,

once drawn by the IESO, shall be treated as a demand response auction deposit in the form of cash; and

18.4.2.5 by including a letter of credit as part of a demand response auction deposit, the demand response auction participant represents and warrants to the IESO that the issuance of the letter of credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the demand response auction participant.

18.4.3 Notwithstanding any other provision of these market rules, a person that applies for authorization to participate in the demand response auction and that has not applied for authorization to participate, or is not participating, in any other IESO-administered market shall not be required to comply with any requirements for authorization other than those set forth in sections 18.2.1.1 to 18.2.1.3.

19. Demand Response Market Participants with Demand Response Capacity Obligations

19.1 Purpose

19.1.1 This section details the delivery of a demand response capacity obligation obtained through a demand response auction.

19.1.2 A demand response market participant who receives a demand response capacity obligation obtained through a demand response auction shall deliver into the IESO-administered market via resources registered as:

19.1.2.1 hourly demand response; or

19.1.2.2 a dispatchable load.

19.2 Eligibility Requirements for Hourly Demand Response Resources with Demand Response Capacity Obligations

19.2.1 A demand response market participant is eligible to participate as an hourly demand response resource provided that the demand response market participant:

19.2.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation obtained through a demand response auction, as specified in the applicable market manual;

- 19.2.1.2 registers its *facilities* and *demand response contributors* as applicable, to the satisfaction of the *IESO*, in accordance with the applicable *market manual*. The *demand response market participant* shall not modify, vary or amend in any material respect any of the features or specifications of any resource without first requesting *IESO* authorization and approval in accordance with the applicable *market manual*;
- 19.2.1.3 satisfies the *connection assessment* requirements in accordance with section 6 of Chapter 4, if required by the *IESO*, in accordance with the applicable *market manual*;
- 19.2.1.4 has provided *prudential support* in accordance with section 5 of Chapter 2.
- 19.2.2 The *IESO* may refuse participation of an *hourly demand response* resource by a *demand response market participant* if the resource's participation would negatively impact the *reliable* operation of the *IESO-controlled grid*.
- 19.2.3 The *IESO* may remove a *demand response market participant's hourly demand response* resource from market participation if the resource's continued participation would negatively impact the *reliable* operation of the *IESO-controlled grid*. The *IESO* may temporarily remove a *demand response market participant's hourly demand response* resource from market participation if the conditions on the *IESO-controlled grid* are such that the resource's participation would negatively impact the *reliable* operation of the *IESO-controlled grid*.
- 19.2.4 The following provisions of the *market rules* shall not apply to a *demand response market participant* that is authorized by the *IESO* to participate only with an *hourly demand response* resource and is not a *wholesale consumer* that is a *non-dispatchable load*:
 - 19.2.4.1 Chapter 2, sections 5A and 8;
 - 19.2.4.2 Chapters 5, 6, 8, 10; and
 - 19.2.4.3 Chapter 7 section 7.
- 19.2.5 A *wholesale consumer* that is a *non-dispatchable load* may participate as an *hourly demand response* resource to fulfill a *demand response capacity obligation*, provided that the *non-dispatchable load* meets all the applicable eligibility requirements of this section 19.2, and the requirements in the *market rules* that are applicable to a *wholesale consumer* that is a *non-dispatchable load*.

19.3 Eligibility Requirements for Dispatchable Loads with a Demand Response Capacity Obligation

- 19.3.1 A demand response market participant is eligible to participate as a dispatchable load in satisfying its demand response capacity obligation, provided that the demand response market participant:
- 19.3.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation obtained through a demand response auction, as specified in the applicable market manual;
 - 19.3.1.2 is authorized as a wholesale consumer;
 - 19.3.1.3 registers its facilities in accordance with the registration requirements for wholesale consumers that are dispatchable loads. The demand response market participant shall not modify, vary or amend in any material respect any of the features or specifications of any resource without first requesting IESO authorization and approval in accordance with the applicable market manual;
 - 19.3.1.4 satisfies the connection assessment requirements in accordance with section 6 of Chapter 4, if required by the IESO in accordance with the applicable market manual;
 - 19.3.1.5 has provided prudential support in accordance with section 5 of Chapter 2.
- 19.3.2 The IESO may refuse participation of a dispatchable load's resource by a demand response market participant if the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.
- 19.3.3 The IESO may remove a demand response market participant's dispatchable load resource if the resource's continued participation would negatively impact the reliable operation of the IESO-controlled grid. The IESO may temporarily remove a demand response market participant's dispatchable load resource if the conditions on the IESO-controlled grid are such that the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.

----- Chapter 11

demand response auction means the auction operated by the IESO to procure demand response capacity, in accordance with section 18 of Chapter 7;

demand response auction participant means a person who is a market participant

that is authorized to participate only in a demand response auction;

demand response auction deposit means the deposit required to be made by a demand response auction participant in accordance with section 18 of Chapter 7, as a condition of participating in a demand response auction;

demand response capacity means the expected quantity of load reduction a demand resource can provide during a specified availability window and commitment period for a demand response auction, and excludes energy transacted through the energy market;

demand response capacity obligation means the amount of demand response capacity that a demand response market participant is obligated to provide during the applicable availability window and commitment period, following a demand response auction;

demand response contributor means an interruptible load or behind the meter generator that is owned by a demand response direct participant, or with whom a demand response aggregator has enforceable rights, and in either case, who will provide a portion of the monthly contracted MW for the contracted dispatch period as outlined in the demand response schedule. A demand response contributor also means the delivery of a demand response capacity obligation with an hourly demand response resource, in which case a monthly contracted MW is replaced by a demand response capacity obligation;

demand response market participant means a person who is a market participant ~~that is a demand response aggregator or demand response direct participant~~ that participates only in the capacity based demand response program, ~~or~~ or is a person with a demand response capacity obligation;

hourly demand response means the resource type described in section 19 of Chapter 7, that is used by the IESO as a delivery type, on an hourly basis, for a demand response capacity obligation obtained through a demand response auction;

PART 5 – IESO BOARD DECISION RATIONALE

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Technical Panel Meeting Agenda

Date: April 16, 2019	Time: 9:00 am to 11:00 am
Meeting Chair and Facilitator:	Mike Lyle, Vice President, Legal Resources and Corporate Governance, IESO
If you have any questions, or to register as an observer, please email IESO Engagement at: engagement@ieso.ca	

Time	Agenda Item	Responsible Party	Expected Actions
9:00 am (10 mins)	Item 1: Introduction and Administration • Attendance & Chair's Remarks • Review of Agenda • Review of March 5 Meeting Minutes	Mike Lyle	Information Approval of Agenda Approval of Minutes
9:10 am (20 min)	Item 2: Engagement Update • Prospective Technical Panel Schedule	Jason Grbavac	Information
9:30 am (5 min)	Item 3: IESO Introductory Statement - Resolute Market Rule Amendment Submission • IESO Cover Memo • IESO Response to TP Questions	Jessica Savage	Information
9:35 am (5 min)	Item 4: Resolute Introductory Statement – Resolute Market Rule Amendment Submission • Revised Resolute Market Rule Amendment Submission • Resolute Responses to TP Questions • Resolute email to TP (with attachment)	TBC	Information
9:40 am (60 min)	Questions and Answers for IESO and Resolute	All	Information
10:40 am (10 min)	Discussion of Next Steps for MR-00437	Mike Lyle	Information
10:50 am (10 min)	Other Business	Mike Lyle	Information
11:00 am	Adjourn	Mike Lyle	

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IESO Technical Panel Meeting

Minutes of Meeting

Date held: 16 April 2019		Time held: 9:00 am	Location held: IESO Office, Toronto
Invited/Attended	Sector Representation		Attended; Regrets
Robert Bieler	Consumer		Present
David Brown	Ontario Energy Board		Present
Ron Collins	Energy Related Businesses and Services		Present
Dave Forsyth	Consumer		Present
Sarah Griffiths	Other Market Participant		Present
Robert Lake	Residential Consumer		Present
Phil Lasek	Industrial Consumer		Present
Robert Reinmuller	Transmitter		Present
Sushil Samant	Generator		Present
Joe Saunders	Distributor		Present
Jessica Savage	IESO		Present
Vlad Urukov	Generator		Present
Julien Wu	Wholesaler		Present
Michael Lyle	Chair		Present
Observers / Presenters			
Tam Wagner	IESO		Present
Ioan Agavriiloai	IESO		Present
Cara Degelman	Resolute Forest Products		Present
Peter Giardetti	Resolute Forest Products		Present
Tony Ruberto	Resolute Forest Products		Present
George Vegh	McCarthy Tetreault		Present
Adam Cumming	IESO		Present
Robert Doyle	IESO		Present
James Hunter	IESO		Present

Secretariat		
Reena Goyal	IESO	Present
Jason Grbavac	IESO	Present
Prepared by: Mitchell Beer / Smarter Shift Inc.		

Agenda Item 1: Introduction and Administration

Chair's Remarks:

The Chair introduced Robert Reinmuller and thanked him for joining the Technical Panel representing transmitters. His term will run to October 2020, the same as Mr. Young's. The Chair said David Dent had submitted his resignation from the Panel, and the IESO was not seeking to fill the vacancy at this time. One of the recommendations of the Advisory Group on IESO Governance and Decision-Making was to review the composition of the panel, and the Chair said the IESO would be pursuing that matter in discussion with the Panel itself and others.

The Chair reviewed the agenda. Sarah Griffiths moved its adoption, and members agreed with no revisions.

The Chair invited comments on the minutes. Ms. Griffiths asked whether the last paragraph on page 10 was intended to refer to the IESO, not Hydro One. The Chair noted that the comment had been attributed to Mr. Giardetti, and Cara Degelman, Resolute Forest Products, clarified that the paragraph should have referred to Thunder Bay Hydro. The minutes were approved as amended.

Agenda Item 2: Engagement Update

Jason Grbavac, IESO, referred members to the Technical Panel schedule in the meeting package. He recalled that the purpose of the published update is to address initiatives and engagements that are most immediately relevant to the Panel. A more comprehensive update on active engagements, including announcements and materials for upcoming meetings, is available on the IESO website.

Mr. Grbavac said the schedule for Panel members will be updated with potential Market Rule amendments the Panel can expect to see in the course of the year. He elaborated on the items on the current table, noting that:

- The Market Rule amendment submission from Resolute Forest Products was on the agenda for the day's meeting, and its future schedule would depend on Panel members' deliberations.

- An information update on a potential review of Market Rules for the next Transitional Capacity Auction will be brought forward at the Panel's May meeting. Mr. Grbavac said the IESO had developed a Phase I design and other items leading up to a meeting April 18. He invited questions on the Auction, and there were none.
- As already noted by the Chair, the recommendations of the Governance and Decision-Making Advisory Group will lead to a review and possible revision of the Technical Panel process and composition. Beginning with a presentation in May or June, the Technical Panel will be invited to help inform the IESO's decisions on an implementation plan and related Market Rule amendments.

Mr. Grbavac said the IESO does not expect Market Rule language to be brought forward for Technical Panel review this year. The Secretariat is preparing to deliver education and information updates to Panel members in the latter part of the year, to ensure that members are fully prepared for the amendments when they begin to appear.

The schedule also included an omnibus package toward the end of the year, aimed at consolidating and addressing minor rule amendments.

Sushil Samant asked whether Panel meetings were expected to run longer than scheduled because of extra items on the agenda. Mr. Grbavac said the Secretariat will make best efforts to communicate well in advance if it appears that a meeting agenda will require more than three hours to complete.

Julien Wu asked whether any changes to the IESO Board were foreseen. The Chair noted two recent appointments, Joe Oliver and Simon Chapelle.

In response to a second question from Mr. Wu, the Chair said the IESO will engage with members on the appropriate structure for the Technical Panel given the challenges coming up with Market Rule amendments on Market Renewal.

Vlad Urukov asked about upcoming changes to the Dispute Resolution Panel. Reena Goyal, IESO, said the changes would explicitly allow parties to choose an arbitrator or mediator for a dispute.

Agenda Item 3: IESO Introductory Statement–Resolute Market Rule Amendment Submission

The Chair explained that the agenda provided for a five-minute introductory statement by the IESO, followed by a five-minute introductory statement by Resolute. He said the day would be devoted primarily to answering Panel members' questions, concluding with consideration of next steps. He drew members' attention to an April 9 memorandum that laid out three potential approaches to the matter: members could request that the IESO post the proposed Market Rule amendment for stakeholder comment, resolve to vote on the merits of the proposal and

recommend for or against its approval by the IESO Board of Directors, or determine that they need more information or discussion among themselves to make a decision on the merits.

Jessica Savage, IESO recapped the discussion at the March 5, 2019 Technical Panel meeting and events that had occurred since. She cited two takeaways from the meeting: a list of questions for the IESO and/or Resolute to answer, and an agreement that the IESO and Resolute would endeavour to work together to arrive at language that addressed both parties' concerns.

On the first point, she said the two entities provided answers to Panel members' questions on March 27 and April 2, and members had had two weeks to consider those responses. Through the processes of formulating answers to the Panel's very detailed questions, the Secretariat determined it could not support Resolute's proposal if it were recommended to the Board of Directors. Ms. Savage said George Vegh, Resolute Forest Products, had claimed that the conduct of IESO staff had displayed an unwillingness to facilitate a resolution to the issue. In response, she encouraged members to consider their original direction: to work together to find language that addressed *both* parties' concerns. After spending two weeks assessing a complicated proposal to determine whether or to what extent they could support it, Ms. Savage said staff invited Resolute to discuss their analysis and position. Resolute's response, she said, was that having a meeting where staff simply repeated its opposition would not be a productive use of everyone's time.

In its April 2 memorandum, the IESO laid out its position that it could not support the Market Rule amendment, on the basis that it would have an adverse impact on the reliable, efficient operation of the IESO-controlled grid and introduce inconsistency in the manner in which market participants are treated. Ms. Savage explained that, when the IESO activates a Demand Response resource, it expects to see a corresponding reduction at the IESO-controlled grid as measured by the IESO revenue meter. If Resolute's proposal were adopted, the grid may never see the full reduction in consumption, since some portion of that load could occur behind the meter.

The Panel has engaged in considerable discussion about different meters and configurations, and about what information is or is not available to the IESO. In his April 9 submission, Ms. Savage said Mr. Vegh referred to an email from IESO staff, taking it to imply that the IESO can read more data than appears on the revenue meter. The IESO has never disputed that it has access to multiple meters, Ms. Savage said, but the meters to which Mr. Vegh referred were operational meters, distinct from the wholesale meters used for settlement in IESO-administered markets, that satisfy the requirements of Measurement Canada for legal trade. IESO's response to the Panel's questions on meter visibility were in the context of registered wholesale meters, used as a source of metering data under Market Rules Chapters 6 and 9.

Even if this issue could be resolved, Ms. Savage said the result would be an inefficient DR program, with ratepayers paying for something they weren't getting when an entity provided only a fraction of its promised Demand Response to the IESO-controlled grid.

Applying consistent methodologies is fundamental to the fair treatment of market participants, she noted. Resolute's proposal would give Demand Response participants access to a configuration that differed from other programs in IESO-administered markets, resulting in inconsistent treatment. On that basis, she said the Resolute proposal could not be supported.

Ms. Savage advised members that the Technical Panel's role in this matter was to determine whether or not to recommend Resolute's amendment to the Board. She said the Panel did not have the mandate to determine whether historical actions were consistent or inconsistent with current Market Rules, adding that Resolute's contention that staff unilaterally implemented a de facto Market Rule amendment was a separate dispute, the arbitration of which fell outside the Panel's role. The past is in the past, she said; the Panel's role is to make recommendations for the future.

Ms. Savage said Mr. Vegh had taken the position that the issue to be decided was not how the system should be configured, but how to preserve the integrity of the Market Rule process so it could be relied upon by the Technical Panel and market participants. She responded that preserving that integrity required that the IESO support the objectives of the Market Rules: to govern the IESO-controlled grid, and establish and govern an efficient, competitive, reliable market for electricity and ancillary services in Ontario.

In light of those objectives, Ms. Savage reiterated that the IESO could not support Resolute's proposed Market Rule amendment, on the basis that it would have an adverse impact on the reliable, efficient operation of the grid and introduce inconsistency in the manner in which participants are treated. She stressed that that conclusion did not make IESO staff bad actors: on the contrary, staff operated in good faith at all times. But she added that any contentions to the contrary were irrelevant to the Panel's consideration of the merits of the proposed amendment. Resolute's submission raised complicated issues, she said, as evidenced by the 17 pages of minutes resulting from the Panel's March 5 meeting, but answering Panel members' questions had helped inform staff's thinking and enabled them to more clearly articulate why the proposed amendment could not be supported.

Agenda Item 4: Resolute Introductory Statement–Resolute Market Rule Amendment Submission

George Vegh, counsel for Resolute Forest Products, asked the Technical Panel's indulgence in the event that he exceeded the five minutes allotted to his opening statement. He said Resolute introduced the proposed amendment to restore the pertinent Market Rule to its original intention. At the Panel's March 5 meeting, IESO staff said the amendment as presented could produce unintended consequences, and Resolute wanted to be sure to avert that outcome. So the first page of Resolute's subsequent submission set out a revision, adding a clause on entitlements and metering of facilities stating that "nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3, or CBDR programs."

The point of the proposed amendment, Mr. Vegh said, was to demonstrate that nothing had changed, consistent with what he said IESO staff had conveyed to the Technical Panel. The intent, he added, should be to facilitate the participation of current Demand Response providers. Resolute has been a DR provider since 2013, and nothing in the proposed amendment would change any of that; it would merely restore what staff said the rule would be.

Between 2013 and the point in 2017 when the current discussion began, Mr. Vegh said IESO staff never raised concerns about reliability, efficiency, or fairness. The question did not arise in 2015, when the Market Rule in question was brought before the Technical Panel. He said he was not suggesting that staff had deliberately misled the Panel; his assertion was that they didn't intend any changes, either. It wasn't until months later that the IESO began raising issues around Resolute's configuration, which Mr. Vegh said the IESO had approved in 2015.

Market Rules can change through experience and learning by doing, Mr. Vegh said. But there's a right and wrong way to put those changes in place. The right way, if the IESO has concerns about inefficiency or reliability issues in the way a rule is operating, is for staff to confirm their intuitions with data. With Demand Response-related operations dating back to 2013, Resolute would have heard previously about any specific issues, and if staff saw the need to change the rules, they could have brought a proposal to a Panel, along with the data that supported it. Then it would be up to the Technical Panel to consider the costs and benefits of the proposed change, the facts put forward to support it, and the impact on market participants, and participants would have had the opportunity to question those assumptions. He said that process was not followed in this case.

The wrong way to amend the Market Rules, Mr. Vegh contended, is for staff to make changes, then deny they've made any changes. He said it was a "surreal" experience at the Panel's March 5 meeting to hear the staff position that Resolute was trying to change the Market Rules pertaining to configuration, when Resolute hasn't changed anything on the ground: The configuration at the company's Thunder Bay facility has been the same since 2013, he said, and the proposed Market Rule amendment was intended to establish that nothing has changed.

Against that background, Mr. Vegh reiterated that Resolute was asking the Technical Panel to restore the Market Rule to its original intention. If staff believe the rule should change, he added, they have the ability to bring forward a proposed Market Rule amendment and try to substantiate it with real data and evidence, not a "post-facto rationalization of what they've done". He concluded that the Technical Panel is the only institution in the entire IESO structure with the mandate and ability to protect the integrity of the Market Rule process, and to ensure that amendments are undertaken in the right way.

Questions and Answers for IESO and Resolute

Robert Lake asked whether either the IESO or Resolute knew of any other market participant with a configuration similar to Resolute's. Ioan Agavriloai, IESO, said staff had not looked for

market participants with similar arrangements, but was convinced there were quite a few. That in itself raised concerns about consistency and opening the door to changes in participation in IESO-administered markets.

In response to a question from Mr. Wu on the original intent of the market design, Mr. Agavrioloai said he was unable to cite the percentage of market participants, but indicated the proposed amendment would affect any facilities with both load and generation behind the meter.

Mr. Wu noted that the facilities in question had been qualified by the IESO and asked whether the number was high or low. Mr. Agavrioloai said he couldn't cite a number, and rejected the assertion that the configuration had been accepted by the IESO, adding that the staff submission had laid out a qualification process under the Demand Response Auction that was based on participants' declarations of the demand response they could achieve. That provision, he added, was the result of feedback from the stakeholdering process on the DRA, and explained why IESO accepted a self-declaration from Resolute on the amount of demand response the Thunder Bay facility could provide. The determination of performance, which has implications for settlements and charges, is subject to an activation test.

James Hunter, IESO, said the IESO believes other market participants have behind-the-meter generators, but is not aware of any other participants that have reported or claimed to have discharged their capacity obligations in the way that Resolute has, in instances when they have failed an activation for that reason.

Ms. Griffiths asked whether those other market participants were approved to participate in DR2, DR3, and CBDR, and how many would have behind-the-meter generation that were not participating in the DR Auction today. She said it would have a bearing on unintended consequences if, for example, there were 20 large firms out there with behind-the-meter generation that had qualified under the previous programs. Mr. Agavrioloai said staff would be prepared to assemble that information for the Panel's review.

Ms. Griffiths asked whether staff, in its review of the proposed Market Rule amendment, had looked back on whether anyone had tried to qualify under DR2 or DR3 and had not participated, but might now somehow find a loophole in an approach similar to Resolute's. Ms. Savage said market participants have multiple configurations, and it's impossible for IESO staff to know how they all operate, whether they'll participate in a Demand Response Auction, or whether they will secure an obligation. She reiterated her earlier point that the Technical Panel's mandate was to look at future rulemaking, not review the past.

Ms. Griffiths said her intent was to look to the future by determining how many resources were approved in the past that might now be able to participate in the future if the proposed Market Rule were accepted. Ms. Savage said staff were concerned about the new configurations of participation that might emerge if the proposed Market Rule amendment were accepted. The discussion was not about the history, she said, but about the potential future impact on market

efficiency, reliability, and consistency. Mr. Agavriiloai said that was precisely why staff had proposed to look into other configurations that could lead to design change consequences, beginning with the knowledge that other market participants would be affected by the proposed amendment.

Mr. Hunter said the IESO had not conducted a full inventory of other DR market participants that might be affected because it does not review participants' metering configurations. The capacity qualification process is that market participants indicate how much demand response they can achieve, and the IESO measures that activity at the IESO revenue meter. That simplification was a significant difference between the DR and CBDR programs, he said: When market participants qualify their capacity, they commit to reduce it at the IESO revenue meter, so that the IESO doesn't have to juggle or compare arrangements or undertake a major qualification process.

Mr. Vegh said that Resolute's position was that nothing in the proposed amendment qualifies other configurations previously approved, so there's no concern about an infinite universe of configurations or possibilities. In the absence of data that he said IESO staff should have provided, he guessed that a half-dozen large loads had participated in previous DR programs and had their configurations approved, so it shouldn't be difficult to pull together the data. After months of studying the implications of the proposed Market Rule amendment, he said he would have expected IESO staff to look at the data rather than taking the position that they can't anticipate the future.

Mr. Vegh said Resolute's proposal was simple: that if a configuration has already been approved, the market participant is not disqualified. He reiterated that the IESO is free to bring forward a proposed Market Rule amendment if it wants to introduce different types of qualification, but asserted that the current proposed amendment did not have the open scope to which staff seemed to be responding.

Mr. Agavriiloai said it was simply not true that the IESO had Resolute's metering configuration under the Demand Response Auction program, as demonstrated by the absence of any metering and verification from the Market Rules and Manuals. Despite a tendency to "cling to the past", he said the rules of the DR Auction program remain clear to staff, as a basis for assessing the merits of the proposed Market Rule amendment.

Mr. Wu asked about the intent of the stakeholdering process for the DR Auction. Mr. Agavriiloai said he couldn't speak to whether Resolute had misunderstood the intent of the Market Rules, but the IESO's intent was clear. As Mr. Hunter previously stated, no other market participant has come forward to the IESO with a request to use anything but an IESO revenue meter for the purpose of participating in the DR Auction program. He said that in itself indicated that the vast majority of program participants understood the rules.

Mr. Wu asked how the current amendment process had been initiated — whether IESO staff had approached Resolute with changes in the way it could participate, or Resolute had approached

the IESO with enquiries about its status. Mr. Agavriloai said the discussion began in December 2017 when Resolute failed two activations and the discrepancy in the company's understanding of the intent of the Market Rules became apparent.

Mr. Vegh said Mr. Wu had not asked staff to speculate about what other Demand Response providers knew. Resolute was certainly not the party that initiated the discussion, he added, since the issue was with the way the IESO had represented the situation. In its submission to Technical Panel, Resolute quoted multiple statements by staff that Mr. Vegh said illustrated what they thought the changes would be. He speculated in turn that, if staff had come forward and said they planned to change the program, they would have heard from other participants.

As an example, Mr. Vegh cited a 2015 presentation by Jason Kwok, IESO, indicating that the Demand Response Auction program would include current DR providers as well as new ones. With that, he said Resolute assumed the IESO had "said what it meant", and there was no indication at the time that staff were considering disqualifying Resolute's configuration.

Mr. Vegh said there were also questions about the approval of the configuration. He said the documentation in the company's submission established that it was inaccurate to say the IESO was not involved in approving the configuration.

Mr. Hunter said those arguments were not pertinent to the question before the Technical Panel, since the Panel's mandate was not to litigate a private dispute between Resolute and the IESO. That dispute will be heard by an arbitrator, he said, and if the arbitrator decides Resolute was justified in relying on those communications, the arbitrator will report accordingly. Whether or not Technical Panel members were sympathetic to Resolute's private position, he said the Panel did not have access to the full record and was not equipped to litigate that dispute. The IESO's position was that, whether or Panel members believed the process was conducted properly, the IESO has always understood that the DRA program centres on demand response at the IESO revenue meter, which is why provisions to allow specific configurations were not included in either the CBDR or DRA programs. Regardless of the Panel's view of the history of the dispute, Mr. Hunter said significant operational changes would be needed if methodologies permitted under previous programs were reintroduced into the DRA, with operational, settlement, and metering implications leading to issues of efficiency and reliability. The ultimate question, he concluded, was whether the proposed change in market design should be supported by the Technical Panel, not whether the Panel agreed with Resolute's account of the history.

Mr. Vegh said he had been patiently allowing the Chair to allow staff to respond to every Mr. Vegh noted that Resolute had provided answers, and was now being told that issue was irrelevant. While IESO staff said they had no role in the Thunder Bay facility's configuration; Resolute's position was that they did, and Mr. Vegh said the emails established the point. While others commented on what was relevant to the amendment, he said it was Resolute's amendment, put forward with the proposition that nothing in the Market Rules disqualified configurations approved under previous programs. On that basis, he said the past approval was obviously relevant.

Referring back to Mr. Vegh's opening remarks, Robert Bieler clarified that the Technical Panel is not responsible for the administration of the IESO-controlled market. Its mandate is to convey its opinions on proposed amendments to the Market Rules and decide whether to recommend them for approval by the IESO Board. He said the current discussion appeared to centre on an administrative decision by IESO staff with respect to the configuration of a Resolute facility, and whether it applied under the current Demand Response program in the way that Resolute had been interpreting it. Resolute chose to put the question before the Panel by means of a proposed Market Rule amendment. Mr. Bieler said there were other means by which the company could have appealed an administrative decision. But since Resolute chose this path, he said the Technical Panel would have to consider the proposed language and whether it changed the way the DR program was intended to operate. Mr. Bieler expressed no opinion on that, but said he didn't appreciate going back through the history, adding that he agreed with Mr. Hunter that it had no relevance. He said it would be helpful to know whether other market participants had similar configurations, and asked for confirmation of his understanding that the discrepancy in the interpretation of the Market Rules was discovered when Resolute failed two activations in 2017. Mr. Agavriloai confirmed that the two failed activations occurred in 2017.

Mr. Bieler asked whether any other market participants had failed their activations, and whether this was the first of what could become a domino effect if other market participants were called to activate a demand response and failed. Mr. Agavriloai said staff hadn't anticipated that question, but could provide a response.

Mr. Vegh said that if a market participant intended to challenge a rule before the Ontario Energy Board, which he said Resolute was considering in this case, one of the requirements under the Market Rules was to first bring its concerns to the Technical Panel and the IESO Board. He said Resolute had proceeded accordingly, adding that the company did not understand the requirement to be a token gesture—the intent, he said, was for the Panel to consider the proposal on its merits. He said Resolute had brought its proposed amendment forward in good faith because it was required to do so, in order to follow through with other processes.

With respect to the role of the Technical Panel, he said Panel members are in a position where they must be able to rely on IESO statements on the purpose of specific market rules. Resolute's position, he added, was not to dispute the results of the activation, but to say the interpretation of the Market Rule should reflect its original purpose when it was adopted, to facilitate participation in the Demand Response Auction by past DR participants. He said that approach was consistent, actually required, under the existing process, and entirely consistent with the entitlement of market participants not to have the rules redacted to change their intent.

Joe Saunders asked whether Resolute had looked at any other available programs for their load before they went down this path. Mr. Vegh said Resolute began pursuing Demand Response in 2013, and was never prompted to pursue other processes. Mr. Saunders asked whether any

other programs were applicable to the company's operations. Mr. Vegh said Demand Response was the applicable program for this load.

Mr. Urukov asked whether Resolute had understood that the DR Auction was intended to allow all previously-allowed metering configurations when it was adopted in 2015, or whether the company was raising a communications issue where the IESO's intent had not been identified. Mr. Vegh said he considered it a matter of intent, since the configuration discussions with IESO staff were consistent with prior arrangements. He said he did not believe IESO staff were holding back, or intended to disqualify Resolute's configuration at the time, that that discussion arose years later. Had staff raised the issue previously, he said the Technical Panel would have received a different set of submissions and considerations on whether the Market Rule should have been adopted, and members could have considered the effects.

Still with the issue of intent, Mr. Urukov asked the IESO to clarify its position on what Resolute had characterized as substantial changes to what qualified under the Demand Response Auction. Mr. Hunter said members had already heard details of changes in historical demand response rules contemplating the submission and approval of a verification plan that would allow reconciliation of multiple DR providers. The intent was that a market participant would tell the IESO how it intended to report, and the IESO would assess whether the plan made sense in context of the program. Then it would be up to the market participant to do the reconciliation if they were activated, and the IESO would go back to the verification plan. The Market Manuals elaborate on the process, with details on how measurement and verification were to work that include a process for participants to provide the IESO with metering data—none of which applied under CBDR.

Mr. Hunter said Resolute's submission established that those conditions were removed from the eligibility definition, pointing to a significant change in the measurement and verification process. While it remained to be seen what changes Resolute believed had been introduced, Mr. Hunter said the new program represented a major shift from the IESO's perspective, eliminating a complicated technical process for market participants to achieve and demonstrate compliance. The new process is simple, he added: there's an IESO revenue meter, the resource is linked to that meter when it's registered, the IESO gathers a baseline based on the previous 15 to 20 business days, then compares the load reduction to that baseline. When the system calls for a load reduction in the grid, the IESO looks at the revenue meter that represents the facility, and the facility either achieves or misses its intended target.

Mr. Saunders asked whether the facility failed its two activations because of changes in the program or due to other factors. Mr. Vegh said there was a disagreement on whether Resolute was given one of the notices of activation, and actually received it. With the other, he said it was a mystery to Resolute why the activation was disallowed, and it took four to five months to get an explanation from the IESO. That disallowance was when Resolute first heard of a change in practice and realized the IESO was taking a different position under the new rule.

Mr. Vegh noted that, in his previous response, Mr. Hunter had identified the change in the measurement and verification plan as the only change in the transition from CBDR to the Demand Response Auction. There was no indication at the time of a significant change in the way Resolute's configuration would be interpreted, he said, and IESO staff acceptance of the configuration was documented. He said it was a "big interpretation" to state that a simplified measurement and verification process should signal a major change that had the effect of disqualifying a load.

Peter Giardetti, Resolute Forest Products, said the two failed activations occurred in April and May, 2017. Resolute received no explanation until August or September, and he said that was when it came to light that the failure traced back to the difference in interpretation. At the time of the May activation, he said the Thunder Bay mill was down, was receiving no power, had submitted an outage indicating to the IESO that it would not be participating in the DR program for the period, and had not submitted a bid for that day. When Resolute received its electricity bill in June, it realized it had failed another activation and contacted the IESO.

Mr. Hunter said one of the two failed activations was not pertinent to the proposed Market Rule amendment. Based on discussions with Resolute, he said the other failure—the one that did relate to the amendment—was a result of the company's interpretation. He reiterated that the Technical Panel was not the appropriate forum to air the IESO's dispute with Resolute, but asserted that the IESO did not approve Resolute's configuration—in the context of the current program, he said that claim by Resolute made no sense. The communications from IESO staff had to do with transitioning Resolute's registration status from CBDR to the DR Auction, but what was said and relied upon were aspects of the dispute currently under arbitration.

Mr. Vegh agreed he wasn't interest in debating the history, but said the conversations occurred between IESO registration personnel and Resolute. He added that the IESO registration system had been out of service at one point, necessitating further discussion with staff on the appropriate configuration. He said he had mentioned the second activation failure in the interest of providing a complete answer to the question.

Mr. Reinmuller asked whether the intent of the DR Auction program was for market participants to reduce load in order to protect the integrity of the system. Mr. Agavriloai said it was. As a transmitter representative, Mr. Reinmuller said Hydro One had been in circumstances not dissimilar to demand response, having to reduce load on 30 minutes' notice to maintain system frequency and reliability. Those transactions involve thousands of megawatts, and they all rely on revenue meters installed at the station level. In that circumstance, he said, the IESO and the grid have no concern about what an entity does behind the meter. The entity is obligated and tested annually on load change and frequency decline and must meet its committed thresholds, regardless of anything happening behind the metering devices at its stations. Without diminishing the implications for Resolute, he explained that, from a grid point of view, a metered entity is required to hit its targets in the interest of maintaining grid frequency and reliability.

With response timelines as short as a half-hour in which to safeguard grid stability, Mr. Reinmuller said Hydro One can't try to reconcile downstream activities based on which generators are in operation. So it must abide by the readings on a high-side, transmission-level metering device and meet the grid's requirements for shedding load.

Mr. Wu asked whether the requirement Mr. Reinmuller had described was governed by Market Rules or policies. Mr. Reinmuller said was a two-layer requirement, ingrained in the Market Rules and also derived from Market Participant Compliance Contract (MPCC) directives requiring utilities to reduce load as required to maintain grid reliability. Mr. Wu asked whether Hydro One would ever challenge those rules or directives. Mr. Reinmuller said the provisions were a matter of the fundamental physics of the power system, that while it might be possible in 50 or 100 years to use behind-the-meter generators in this way, the system isn't there yet.

Grid events happen very quickly, Mr. Reinmuller added, requiring grid managers to react very quickly to maintain frequency and balance load with generation. The easiest way to do that is to drop load, since it's a certainty that all utilities can count on. Must utilities also know which stations and feeders carry the most load, and can address demand response in a very organized, quick fashion when real-time events demand it.

Mr. Wu asked whether Mr. Reinmuller was describing a regulatory issue governed by Market Rules. Mr. Reinmuller said it was. Mr. Wu asked whether Hydro One would challenge the rule, and if so, how. Mr. Reinmuller said a challenge would be difficult, adding that he was describing an obligation his organization must meet today that means constantly identifying load that can be shed should the requirement arise. Should Hydro One fail to do so, the IESO would cite it for non-compliance and require corrective action—all of which reflects back to the physics of the power system and the need to balance load with generation.

Mr. Bieler asked whether Demand Response participants are compensated on a standby basis, or based on the reductions they actually contribute. Mr. Hunter explained that they receive availability payments based on their capacity obligations even if they are not activated. If an activation fails, the availability payment for the applicable period is clawed back. Mr. Bieler asked how much capacity Resolute had contracted for. Mr. Giardetti said he didn't recall the precise auction settlement terms, but that the total was between 50 and 54 megawatts.

Mr. Samant asked whether the proposed Market Rule amendment was intended to convey that metering configurations remained unchanged when the IESO made the transition between Demand Response programs. Mr. Vegh reiterated that the metering configurations had been approved under DR2 and DR3, and had not been disqualified under the Demand Response Auction.

Mr. Samant noted that the DR Auction was supposed to facilitate participation by previous demand response participants and asked whether it succeeded in that goal, and whether the implication was that a participant would receive the same capacity obligation under the new program. Mr. Vegh said DRA was an auction program, with no entitlement for a specific

reward. From Resolute's point of view, he said the salient issue was that the previous metering configuration was preserved.

Mr. Samant asked whether the commitment under the new program was to preserve the configuration or simply to facilitate participation, and whether it had succeeded on the issue of participation. Mr. Vegh said he couldn't speak for other market participants.

Mr. Samant said he assumed there was an obligation on market participants to understand the Market Rules. Mr. Vegh agreed with that assertion, adding that that was why Resolute was placing such emphasis on the wording of the Market Rules, which did not include any reference to disqualifying characteristics. Ms. Savage said a commitment to facilitate the participation of existing resources was not the same as saying the rules of the game would remain unchanged. Mr. Vegh replied that, in such a case, it's useful to know what the rules will be if entities are expected to make investments and participate in the market.

Mr. Agavrioloai said staff believed they had met that expectation. Mr. Vegh asked him to identify any point where the explicit change was noted, adding that when a market participant is told that a rulemaking process is intended to facilitate participation, it doesn't set the expectation that the rules will change. It's legitimate for rules to change, he added, and staff could have gone through the program to identify configurations that weren't working as the IESO believed they should, then proposed a transparent, open amendment to address the issue. That process would have given market participants the opportunity to raise questions, and the Technical Panel the opportunity to think through the implications. In Resolute's view, the current dispute was about what the rules said and the way they were interpreted.

Mr. Bieler asked whether Resolute participates in any feed-in program in which it receives compensation for capacity it provides to the grid from its Thunder Bay unit. Mr. Giardetti said Resolute has a power purchase agreement for the generation, but that the grid receives the reduction when the Thunder Bay sheds load, regardless of which physical source it comes from. He added that the PPA covers what Resolute generates, but the company pays market price for all its power, regardless of source.

Mr. Bieler referred to the three configuration slides presented as background to the March 5, 2019 discussion, noting that he didn't see a scenario in which the grid received a load decrease of up to 60 megawatts. In two cases, the difference was made up by power supplied from Resolute's own facility, but he said buying power for the grid through a PPA was a different scenario that may or may not be required at the same time as a demand response activation.

Mr. Giardetti said the scenario in Mr. Bieler's example involved Resolute shutting down production capacity to reduce load in response to an activation—since the requirement is for demand *response*, it doesn't involve any change in generation. In that scenario, the IESO only sees a smaller number of megawatts because it's only reading one part of the channel, and missing the injection, he said. By drawing a box around the whole mill, including the generator, the grid would see the entire 50 MW.

While Resolute does not increase generation to make it look like it has reduced load, Mr. Giardetti said the one-meter configuration would give a market participant the ability to do something that was never intended under the DRA program—and that was why Resolute did not come up with this configuration on its own. It was discussed with the Ontario Power Authority and the IESO during the CBDR program because it had been transitioned over from earlier programs.

Mr. Saunders said that, from the perspective of the planning that takes place at the grid control centre, there's a difference between removing 50 MW as opposed to removing 30 and injecting 20 MW, since the injection is harder to plan for and may not be located where it is needed. Mr. Agavriloai agreed that the two scenarios had different reliability implications for the IESO's effort to manage grid supply and demand, and that the intent of the Demand Response Auction program was to secure demand reductions at the IESO-controlled grid, without any regard or concern for what happens behind the meter. While it might well be that the current configuration was put in place to prevent Resolute from increasing generation to effect a reduction in demand, he said the current program focused strictly on the point of connection to the grid and the effective demand reduction period.

Mr. Giardetti said Resolute is obliged to tell the IESO how much power it will be injecting into the grid and when, and IESO has the right to accept or decline, as they do with any injection. The information exchange occurs two hours ahead of the potential injection, and is not a part of the DR program. Mr. Vegh said that process demonstrated the amount of facility data available to the IESO.

The Chair took note of the hour and invited any further questions from members. Mr. Urukov asked for comment on the feasibility of Resolute registering its generator separately, and Mr. Giardetti undertook to supply a response.

Ms. Griffiths asked whether the next item on the meeting agenda was an opportunity for the IESO and Resolute to each state the next steps they would like to see. The Chair said the IESO had anticipated a conversation on next steps among Panel members. Ms. Griffiths asked for Resolute's comment on that point, and the Chair suggested a 10-minute break before considering next steps.

Mr. Lasek asked whether Resolute's qualification as a market participant would change under the proposed Market Rule amendment. Mr. Hunter clarified that, when he'd said the IESO had never approved Resolute's meter configuration, he didn't mean the agency had considered, evaluated, and rejected it—he intended to convey that staff never looked at Resolute's or any other market participant's meter configuration. That's because the qualification process for the DR Auction program is participant-set: when participants tell the IESO what capacity they wish to take responsibility for offering into the program, the IESO does not conduct a substantive qualification review. It simply looks at the revenue meter to verify whether a reduction occurred upon activation.

In order for the Resolute amendment to be adopted, Mr. Hunter added, the IESO would have had to carry forward rules that did not currently exist in the DR Auction but were in effect in the historical program, and implement them into the DRA. Those included provisions requiring participants to submit a method of verification plan, as well as Market Manual procedures dictating how data measurement should be governed that would have been required for the IESO to be able to accommodate the legacy metering arrangements. Those provisions would also have had to be reflected in the Market Rules, which currently include no substantive qualification process.

Mr. Lasek asked whether that meant the modifications might not have qualified from the IESO's perspective. Mr. Hunter replied that, in the hypothetical in which the proposed Market Rule amendment was adopted and the related provisions from the historical programs were also replicated and reintroduced into the Rules, there would be a substantive qualification process under which the IESO would have to review the metering arrangement. The fact that a configuration was permitted under the OPA system would have no bearing, he explained, since CBDR was a provisional program to bring contract holders into the IESO market.

Ms. Griffiths said that view was a stretch, given that qualification under the Demand Response Auction were based on best practices in other jurisdictions' markets. She questioned whether it would be necessary to change the Market Manuals, adding that if that was a foreseeable outcome of Resolute's proposed Market Rule amendment, the concern should have been raised earlier in the discussion. Mr. Hunter replied that there was no other substantive qualification process in a system where market participants indicated their available capacity, and the IESO did not currently question that submission, so that the only way to verify available capacity was to activate it. He said there was no other best practice in the DR program.

Ms. Griffiths said the best practice was in allowing market participants to state their available capacity, then proceed to meet it. She reiterated that it was surprising to see the concern about Market Rule and Market Manual amendments expressed now, not during the March 5 Technical Panel or in the question and answer process that followed. Mr. Hunter said that information had been provided to the Technical Panel, and that he could demonstrate why the changes he had enumerated would absolutely have to be made: If the IESO lacked a method of understanding how a market participant like Resolute intended to achieve its capacity obligation, it would have no way to determine whether the participant had done so after viewing the revenue meter and spotting the discrepancy. That scenario would call for a verification plan or process that made it possible to manage the data and verify that the market participant had done what it said it would do, in the manner in which it had undertaken to do it. He said the discussion illustrated why it wouldn't be sufficient to simply allow a provision from a previous program in the current one: there would have to be enabling rules, as well.

Mr. Vegh said he was mystified at the idea that the IESO was not involved in approving configurations in light of the email record. But even if changes were required, he said the Rules were the rules and the Market Manuals were the interpretation—it wasn't a matter of changing

the rules to align with the Manuals. The Rules are what the IESO has the mandate to make, and they're binding, whereas the Market Manuals are administrative. Mr. Hunter said the Market Manual that contained the technical specification corresponding to the proposed Market Rule amendment created an obligation for participants to submit a method of verification plan, and for the IESO to approve it—which would now entail a change to the existing process. The technical manual detailing how the verification plan must operate would also have to be revised.

Mr. Vegh said that if it was a matter of tweaks or changes to the Market Manual, that level of work goes on all the time. In that case, he said the proposed Market Rule amendment entailed no change to the existing rule, and should therefore require only an administrative change.

Mr. Bieler noted a statement in the minutes of the March 5 Technical Panel meeting indicating that the measure of DR capacity for hourly demand from resources participating in the Demand Response Auction, like Resolute's Thunder Bay facility, was premised on establishing a baseline measurement based on the last 15 to 20 business days of activity at the IESO-controlled grid, that activations are measured at the ICG, and the difference between those two values determines the success or failure of the activation. On that basis, he said, the IESO would never have seen more than 30 MW at the meter, raising the question of how Resolute was ever approved for 60 MW. He said it appeared they had been "grandfathered" in from the previous regime, and asked whether the IESO had any means of determining their actual qualification. Mr. Hunter said the IESO had every reason to believe Resolute could achieve the 60-MW reduction—for example, if it refrained from operating its generators—but the IESO would not dictate to them, or investigate their operating practices or business decisions. Instead, the baselining process served that purpose.

Mr. Bieler said verification would have been as simple as reviewing the consumption data on the facility's power bill and seeing that they never consumed more than 30 MW. Mr. Agavrioloai said those records show that Resolute's Thunder Bay facility sometimes consumes more than 50 MW of load, demonstrating that there would be no reasonable way for the IESO to surmise that they would only ever withdraw 30 MW or less. Mr. Giardetti said those record pertained to periods outside the Demand Response hours, and that very few data points during DR or on-peak periods showed consumption at that level.

Discussion of Next Steps for MR-00437

The Chair confirmed that the three Technical Panel members attending by phone were still present.

The Chair recalled Ms. Griffiths' question about Resolute's view of next steps, and invited Resolute to respond.

Mr. Vegh thanked Technical Panel members for taking the discussion very seriously, noting that many questions had been raised in the day's discussion and not all could be answered. He

said the discussion contained some important takeaways, including questions about reliability impacts under the DR program that he said Resolute had been asking since 2013. While the company wanted to see the matter resolved, he said the Technical Panel should take more time for deliberation and to receive further information if members felt that need. He stated that next steps should be in the Panel's hands, and committed the company to continue working cooperatively to ensure that Panel members have the information and deliberation time they need to reach the appropriate outcome.

The Chair invited members to advise on whether they felt they had enough information to make a recommendation to the Board, or whether they would want some of the outstanding questions answered first.

Mr. Reinmuller said he had no definite preference, and would listen to other Panel members' input to judge how far along they were in their understanding of the matter. He reiterated his previous statement about the implications for Hydro One and, looking beyond the net contribution of any market participant, suggested a parallel in terms of reliability.

Mr. Lake said the day's discussion had covered much of the ground that had already been addressed in the March 5 meeting and the subsequent Q&A. He said he had no need for further information.

Mr. Urukov said he had minor questions that would not prevent him from making a decision.

Mr. Saunders said he was getting a full understanding of the issue and would appreciate an in camera discussion among Panel members.

Mr. Bieler agreed that the Panel would benefit from some deliberation in camera, or failing that, from answers to some of the remaining questions. In the event that that was not possible, he said the Panel could proceed.

Ms. Griffiths said she was ready to make a decision, with no need for additional information. She said she could appreciate the need for further deliberation if that was the preference of other Panel members, but that the discussion should occur in a public forum, not in camera.

Mr. Forsyth said he had enough information to make a decision.

Mr. Samant said he had enough information but would prefer to convene an in camera meeting, upon adjournment of the day's public discussion or at a later date by phone, to ensure that Panel members were all on the same page.

Mr. Lasek said he was ready to make a decision and provide direction for future reference.

Mr. Collins said he would prefer to have remaining questions answered in an in camera session before making a decision.

Mr. Wu said he was ready to make a recommendation.

Ms. Savage said she would defer to other Technical Panel members' preferences for next steps.

The Chair said he was hearing some preference for more time to deliberate, with on consensus on whether a follow-up session should occur in camera or in open session. He asked whether members wanted to continue the discussion immediately with a hard stop at noon. Panel members discussed their departure plans, and the Chair said it appeared the group had another five minutes before people began to leave.

Mr. Bieler asked whether a Panel decision would require a majority vote or unanimity. The Chair said the eventual decision would be a majority vote on a recommendation to the Board of Directors, adding that the matter would still go to the Board even if the majority vote was against recommending it. The IESO's standard [best] practice would be to document the reasoning behind each Panel member's vote.

Mr. Bieler said he would willingly forego an in camera session and proceed directly to a vote. The Chair said he was still hearing some desire for further deliberation, and Mr. Wu agreed.

The Chair suggested the Panel convene an open session as soon as possible. In the meantime, he asked the IESO and Resolute to endeavour to provide answers to the questions raised in the course of the day's discussion. He also proposed posting the proposed Market Rule amendment for stakeholder comment, with a three-week deadline for replies. There were no objections.

Mr. Bieler asked whether a subsequent meeting would include a vote. The Chair said Panel members would deliberate and hear each other's views. Mr. Wu asked whether it would be possible to vote in an email that included the reasoning behind Panel members' decisions. The Chair said the IESO would reply on that point.

The meeting adjourned at 11:30 AM.

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IESO Technical Panel Meeting

Minutes of Meeting

Date held: March 5, 2019		Time held: 9:00 am	Location held: IESO Office, Toronto
Invited/Attended	Sector Representation		Attended; Regrets
Robert Bieler	Consumer		Present
David Brown	Ontario Energy Board		Present
Ron Collins	Energy Related Businesses and Services		Present
David Dent	Other Market Participant		Present
Dave Forsyth	Consumer		Present
Sarah Griffiths	Other Market Participant		Present
Robert Lake	Residential Consumer		Present
Phil Lasek	Industrial Consumer		Regrets
Robert Reinmuller	Transmitter		Regrets
Sushil Samant	Generator		Present
Joe Saunders	Distributor		Present
Jessica Savage	IESO		Present
Vlad Urukov	Generator		Present
Julien Wu	Wholesaler		Present
Michael Lyle	Chair		Present
Observers / Presenters			
Jo Chung	IESO		Present
Robert Doyle	IESO		Present
Tam Wagner	IESO		Present
Richard Zaworski	IESO		Present
Cara Degelman	Resolute Forest Products		
Peter Giardetti	Resolute Forest Products		
Tony Ruberto	Resolute Forest Products		
George Vegh	McCarthy Tetrault		

Secretariat		
Reena Goyal	IESO	Present
Jason Grbavac	IESO	Present
Prepared by: Mitchell Beer / Smarter Shift Inc.		

Agenda Item 1: Introduction and Administration

The Chair welcomed Robert Reinmuller, Director, Transmission System Planning at Hydro One Networks, as the newest member of the Technical Panel (TP), representing the market participant transmitter constituency. He explained that Messrs. Reinmuller and Lasek would be absent for the day's meeting, then introduced the four guests from Resolute Forest Products and several IESO staff in attendance.

Agenda:

There were no revisions to the agenda.

Minutes and Action Items:

The Panel reviewed the minutes from the January 29 and February 6 meetings. Mr. Lake proposed a minor amendment to the February 6 draft, adding the word "and" to a reference to metering. The minutes were approved as amended.

Chair's Remarks:

With the IESO preparing for the next phase of Market Renewal, the Chair reported that Rob Doyle had been engaged to assemble a small team to deal with all rule amendments not related to the market renewal program.

The Chair reviewed the day's agenda, noting that it consisted of an IESO staff overview of Resolute Forest Products' market rule amendment submission, a presentation from Resolute, followed by an opportunity for Technical Panel members and other meeting participants to comment and ask questions. He said discussion of the two presentations would be confined to questions or comments from Panel members, with an opportunity for input from anyone present under Agenda Item 5.

The Chair noted the staff proposal that the matter be referred back to the Demand Response Working Group (DRWG) for further consideration, with the expectation that it would come back to Technical Panel in June. At that point, if the Panel decided to proceed further with the topic, it would vote on a Market Rule amendment in August for submission to the IESO Board later that month, in time for implementation for the next demand response auction in December.

George Vegh, said the Chair had characterized the IESO staff proposal to be what would happen during the current TP meeting, and noted that Resolute was proposing a different approach. The Chair clarified for Mr. Vegh that he said he had characterized the staff presentation as a proposal, noting that Resolute would have an opportunity to provide its perspective.

Agenda Item 2: Engagement Update

Jason Grbavac, IESO, recapped a busy month of engagement activities since the Panel's last meeting in February. He thanked stakeholders for their meeting participation and hard work.

The Market Renewal Working Group held its final meeting February 28. Mr. Grbavac said the working group was instrumental in providing advice and guidance on the market renewal process, culminating in the release of high-level designs for the energy stream late last year, and for the incremental capacity auction by the end of March. He thanked the Technical Panel members who also served on the MRWG, Julien Wu, Sarah Griffiths, and Sushil Samant, along with all the other stakeholders who participated in that phase of the market renewal process.

Mr. Grbavac said stakeholders had completed their review of all three high-level designs in the energy stream. IESO is now reviewing their feedback, and expects to post a response document in a few weeks. The high-level design for the incremental capacity auction will be subject to the same review process. Both streams will subsequently enter a detailed design phase that will involve internal review and engagement with external stakeholders.

There were no questions on the first part of the presentation.

Mr. Grbavac noted that Panel members had questions about the document the IESO previously used for engagement updates. The IESO has undertaken a review and redesign of its Market Renewal engagement page, with the intent of making it a more valuable resource for stakeholders looking for updates on the process, whether they're interested in high-level status or deeper details. He said the Secretariat will look forward to Panel members' comments on the redesign.

Ms. Savage said the IESO intended to focus its updates to Technical Panel on engagements that will likely result in proposed amendments to the market rules.

Mr. Lake asked whether the Minister of Energy and his staff are kept posted on the IESO's work. Ms. Savage said Ministry representatives are invited to Stakeholder Advisory Committee meetings.

Agenda Item 3: IESO Presentation: Resolute Market Rule Amendment Submission

Tam Wagner, IESO recapped the Technical Panel's February 6 meeting on the Resolute submission, as well as the subsequent meeting of the Demand Response Working Group (DRWG). She spoke to the technical implications of the submission and the IESO's position in response, suggesting based on internal review that the proposed amendment was not a clarification of the existing market rule, but rather a design change affecting the demand

response auction. That conclusion drove analysis of whether such a change would be desirable, and whether the language of the proposed amendment would achieve the intended outcome.

The IESO presentation :

- Does not support the Market Rule amendment submission in its current form due to its technical implications;
- Acknowledges that the availability to provide injections into the IESO grid could potentially have capacity value and could benefit ratepayers, and therefore would recommend further consideration by the DRWG;
- Believes further analysis is required to appropriately capture the broader impact of the proposed amendment and any unintended consequences of any design change.

Mr. Sanders asked whether the IESO was recommending against recognizing behind-the-meter generation fed back into the grid if providers are already compensated for that capacity under other programs. Ms. Wagner said that was the case from the IESO's perspective.

When Ms. Wagner presented a portrayal (slide 7) of a demand response activation, Mr. Urukov asked whether the graph contained actual or illustrative data. Ms. Wagner said the graph was intended as an illustration for non-dispatchable facilities, noting that all dispatchable facilities are offered through the IESO market.

A subsequent schematic (slide 8) showed the load configuration at Resolute's Thunder Bay facility, combining a non-dispatchable load and an onsite cogeneration plant. Ms. Griffiths asked whether those facilities have two separate registrations, and Ms. Wagner said they do. In response to a question from Mr. Forsyth, she clarified that the current site configuration contains a non-IESO revenue meter.

Ms. Wagner explained that the IESO's assessment of the technical implications of the Resolute proposal were based on withdrawals from the connection point for the IESO-controlled grid (ICG), which IESO calculates at 30 megawatts and Resolute places at 60 MW, including the cogeneration plant. Mr. Urukov asked whether all the capacity involved is drawn from Channel 1 of the IESO revenue meter. Richard Zaworski, IESO, confirmed that only Channel 1 of the IESO revenue meter is associated with non-dispatchable load.

Ms. Wagner presented a scenario (slide 10) in which the proposed amendment would increase the facility's total capacity from 30 to 55 MW and said recognizing self-generation for this purpose would constitute a change to the Market Rules. She acknowledged that the 25-MW injection in this scenario would represent a benefit to the IESO-controlled grid.

In a second scenario based on the proposed amendment (slide 11), using 60 MW as the baseline for the facility, the net capacity supplied through a demand response activation would be 25 MW, producing the risk of overstating the capacity delivered to the IESO-controlled grid. Mr. Forsyth said that would be because the IESO was only looking at one channel of the meter. Ms. Wagner said both channels would only show withdrawals under the scenario.

Mr. Sanders said the baseline assumption, based on the highest 15 to 20 days of data, would be 30 MW from the generator and 30 MW from the IESO grid. Ms. Wagner said that would be the case under the proposed amendment, but under the current Market Rules the focus would be on the 30 MW at the ICG connecting point. Mr. Sanders asked whether the concern was that Resolute could be recognized for 55 MW of demand response at a time when it was delivering no resource to the grid. Ms. Wagner said it was.

Ms. Wagner's third scenario (slide 12) showed the facility delivering 0 MW of capacity under Resolute's proposal, rather than the 30 MW that is recognized under the current Market Rules, resulting in an understatement of DR capacity delivered. The ultimate concern, she said, was the potential for different market participants with the same facility configuration but different capacities to receive different outcomes.

Mr. Lake asked whether the proposal was a back door to incremental capacity. Ms. Wagner said the IESO sees demand response as a reduction of withdrawal from the grid. IESO recognizes the benefit of incremental capacity injections to the grid, she added, and is pursuing that potential through the transitional capacity auction.

Mr. Urukov asked whether the proposed amendment captured the change at the load. Ms. Wagner said the proposal addressed the load at the facility rather than the net load, a significant distinction from an IESO perspective. Under current Market Rules, she added there is an opportunity to acknowledge the load at the facility, but the demand response auction specifically covers the withdrawal aspect, while any injection would fall under the energy market. So from the IESO's perspective, mechanisms to acknowledge the full capacity are already available under the existing Market Rules, leading to a potential business decision on how the facility's configuration would be reflected.

Mr. Sanders asked how a facility's capacity can be considered behind the meter under one program and in front of the meter under another. Ms. Wagner said any facility's treatment under the Market Rules must be consistent with others, to ensure fair treatment for all.

Mr. Lake asked how the proposal would treat a large customer with generation in a separate location that wheeled the power through to a registered site, and how different that would be from the Resolute proposal. Ms. Wagner said that scenario could be a consequence of the proposed amendment, and one the IESO would have to assess to ensure it was both intentional and appropriate. She said the IESO had developed and explored the three scenarios she had presented, realizing that other potential complications could emerge. That was one reason the IESO recommended referring the matter back to the DRWG for further review.

Ms. Griffiths said she had found the presentation very informative, adding that she wished it had been available at the most recent DRWG meeting. She said the more limited information available at that time may have explained why the IESO received no comments on the proposed amendment in the two weeks between meetings.

Ms. Griffiths asked whether the IESO factors the 30 MW of self-generation at the Resolute facility into its resource adequacy calculations. Later in the meeting, Ms. Wagner confirmed that it does.

Ms. Griffiths asked whether the cogeneration facility had any capacity contract of any kind in place. Ms. Wagner suggested that Resolute representatives could answer the question.

Mr. Lake asked whether, from a probability point of view, the grid would need demand response and incremental generation capacity at the same time in the event of a shortage. From a customer point of view, he said, he would be inclined to focus on incremental generation first, rather than forcing a factory to reduce load. Ms. Wagner said the answer would depend on the severity of the shortfall and the resources available. She added that incremental capacity was currently subject to stakeholder engagement, and the resulting implementation is still to be determined.

Ms. Griffiths said a demand response provider would expect to meet the requirement when it could offer a less expensive resource than the next available market participant. Mr. Sanders asked whether the same sequence would apply to voltage reductions. Ms. Savage said the IESO attempts to respond to shortages in priority order, but every situation is different and some circumstances require one or more simultaneous actions.

Ms. Griffiths asked whether IESO qualified the existing meter configuration at Resolute in the 2015, 2016, and 2017 auctions. Ms. Wagner said those auction results are currently under dispute. Ms. Griffiths asked whether the configuration would qualify, and Mr. Zaworski replied that the registration process includes qualification.

Ms. Griffiths asked whether the other participants that received obligations as a result of the 2015 auction were required to specify how they would provide their megawatts. Mr. Zaworski stated that, by registering physical resources, those participants would have indicated that they were physical participants with IESO revenue meters. Ms. Griffiths asked how that practice would apply to aggregators who assemble a number of different load sources and meet system obligations through a combination of load reductions and self-generation. Mr. Zaworski said auction participants have the option of providing a plan for how they'll meet a call for demand response, but no mandatory requirement.

Ms. Griffiths asked whether that meant the IESO wouldn't have known how Resolute planned to meet its obligation when it qualified in December 2015. Mr. Zaworski said the facility qualified for 55 MW of demand response, based on available metering data. The company's actual ability to deliver the capacity was only tested with an activation, and that was when it became clear that they were actually capable of delivering 30 MW.

Mr. Samant asked whether the IESO ever conducts capacity tests. Mr. Zaworski said it does, and confirmed that was when the gap was identified at Resolute.

Mr. Lake recalled an earlier system configuration in which interruptible power was divided in two categories, and consumers ended up subsidizing big industrial users that were unwilling or unable to respond when the system called for demand response. He asked whether the IESO's demand response contract calls for providers to be dropped from the program if they fail to respond once or twice. Mr. Zaworski said the contract contains pertinent provisions regarding participation if there are reliability concerns.

Mr. Samant asked whether the Market Manuals include specifications for input channels. Mr. Zaworski said provisions are in place for physical contributors based on registered, non-dispatchable loads that, by their nature, do not have injections. The Market Manuals provide for virtual resources to be registered by aggregators.

In reply to questions from Messrs. Samant and Wu, Mr. Zaworski said that a behind-the-meter generator can only be used to displace load, and any injections beyond load displacement are not compensated under the demand response program. He added that acknowledging a physical resource means identifying an IESO revenue meter with which it is associated.

Ms. Savage said it's up to market participants to tell the IESO what programs they expect to qualify for. While providers can decide whether to submit detailed plans, non-performance is addressed through a host of charges on the back end of the program. She added that an expanded set of up-front qualification requirements will be one feature as the incremental capacity auction evolves. But if a market participant fails to meet requirements, the IESO already has the scope to revisit its qualifications in future demand response auctions.

In reply to a question from Mr. Wu, Mr. Zaworski said the current situation arose when Resolute had its first test activation. Mr. Wu asked whether any other qualified providers had failed to meet a requirement. Mr. Zaworski said there were no other cases where the IESO's interpretation of the Market Rules was being challenged. He explained that test activations are conducted in a time series, and failures are not determined based on interpretations of the baseline but by the amount of demand response delivered. They are judged by performance.

Mr. Urukov asked whether the explicit reference to Channel 1 was based on Market Manual 12. Mr. Zaworski said there is no explicit channel reference for physical resources. The provision for virtual resources appears in Section 6.3, which covers processing of metering data to ensure it is treated in the same manner as a physical resource.

Mr. Collins asked whether the issue was that the demand response program doesn't pay for injections, and Resolute didn't find out until later on in the process that it couldn't inject the amount it originally offered. Ms. Wagner said the determination is based on activity at the IESO connection point and whether the behind-the-meter generator is being used to displace load. She noted that the Market Rule provides for withdrawals from the grid, so that's what the IESO looks for at the connection point.

From that starting point, she said the IESO is concerned about unintended consequences of the proposed Market Rule amendment, given that three different scenarios provided three different outcomes that were all consistent with the new language. She expressed concern that the proposal could represent a fundamental change in the design of the demand response auction.

Mr. Forsyth asked whether the Market Rules could be adjusted in a way that addressed Resolute's concerns while avoiding unintended consequences. Ms. Wagner said that determination would require further analysis and discussion with stakeholders.

The Chair suggested a 10-minute break between submissions.

Agenda Item 4: Resolute Presentation: Market Rule Amendment Submission

Mr. Vegh and Peter Giardetti, Resolute Forest Products, discussed the current configuration at the company's Thunder Bay facility, its functioning between 2013 and 2018, and the proposed Market Rule amendment. They said the purpose of the proposal was to restore the Market Rule as it was originally established by the Technical Panel and supported by IESO staff, with the intent of transitioning contracts from the earlier capacity-based demand response auction into the current set of rules. They suggested that Resolute's two-meter configuration had been reviewed and accepted by the IESO, and there has been no rule change to support what the company interpreted as a change in the staff's position in 2017.

Mr. Samant asked whether Resolute had received an activation in 2016. Mr. Giardetti said it had not.

Ms. Griffiths asked how the IESO had reviewed Resolute's qualification under the auction. Mr. Giardetti said the company had submitted data and configuration information during the registration process. He expressed Resolute's position that the IESO changed its interpretation of the rules in June 2017, and the company wasn't notified until August 2017.

Ms. Savage asked Resolute to elaborate on the events leading up to August 2017. Mr. Giardetti said a test activation took place in April 2017, and when Resolute's subsequent bill indicated it had failed the test, the company couldn't figure out why until August 2017, when it learned that the IESO had changed its interpretation of the facility's baseline from 55 to 30 MW. He reiterated that Resolute was aware of no market rule that had driven the change, adding that the company originally defined the capacity as demand response on instructions from the Ontario Power Authority.

Mr. Giardetti traced the shifts in Resolute's operations during the April 2017 activation, expressing the company's position that the net result was a 55-MW reduction in load—30 from the demand response meter, 25 through an injection within its own system—not an increase in generation. The IESO's interpretation only recognized the 30 MW on the withdrawal channel, he said.

Mr. Sanders asked who was responsible for reading the meter. Mr. Giardetti said a third party, Thunder Bay Hydro, played that role under past programs. Then, until August 2017, he said the company assumed the IESO was doing the math.

Mr. Sanders asked how Resolute ties the timelines together between the revenue in the IESO meter and its own. Tony Ruberto, Resolute, said the data is read at five-minute intervals, and the two meters are aligned. In reply to a question from Ms. Griffiths, Mr. Giardetti said he wasn't sure whether the IESO has access to the demand response revenue meter. Mr. Zaworski said the IESO only has visibility on its own meter, where it read a demand response withdrawal of 30 megawatts. Ms. Griffiths asked whether the IESO performed an audit, and Mr. Zaworski said there are no provisions to register the second non-IESO revenue meter under the Market Rules for demand response.

Ms. Griffiths asked whether that meant the IESO was only reading 30 MW of demand response capacity for 2016 and 2017. Mr. Zaworski said the IESO meter registers the net facility load, which is greater than 30 MW. But there is no way to determine whether that capacity can be

delivered without a test activation, based on historical performance over the previous highest 15 of 20 days.

Mr. Giardetti said the IESO could indeed see both channels for 2016 and 2017, and should have been able to view the difference between the withdrawals and injections. Mr. Ruberto said the meter was registered and certified under DR2 and DR3, and under CBDR before that. So it was visible to the IESO, he said; staff just weren't reading it as part of the demand response auction.

Mr. Samant asked whether there was an associate relationship on the meter. Mr. Ruberto said it was tied to Resolute's meter service provider.

Mr. Zaworski said the IESO's obligation in settling the physical market is related to its own revenue meter. Even if there was a process by which an additional meter was visible, the IESO would have to determine under what provisions in the Market Rules it would be required to see it.

In reply to questions from Ms. Griffiths, Mr. Zaworski said the IESO knew the second meter existed, and all parties agreed that it was associated with the generation load and registered separately. Mr. Giardetti said the meter was originally installed on instructions from the OPA, to separate Resolute's generation from demand response under CBDR and DR2.

Mr. Urukov asked how Resolute had applied the passages of the Market Manuals describing how proposed demand reductions should be achieved. Mr. Giardetti said Mr. Vegh would address that question.

Ms. Griffiths asked whether Resolute has a separate capacity contract for the generator, and Mr. Giardetti replied that a power purchase agreement (PPA) is in effect. Mr. Urukov asked how the revenue meter for that agreement is registered with the IESO. Mr. Ruberto said metering data is submitted daily, reinforced by monthly filings. Mr. Giardetti said the PPA involves combined heat and power, so there is a requirement and a complex process for showing that energy is being directed back into the paper mill. The PPA was originally signed with OPA, then transferred to the IESO, and it is still in effect.

Mr. Collins asked whether an injection into the grid would violate the PPA, and Mr. Giardetti said it would not: the agreement requires a certain percentage of useful heat output to be reapplied back into the mill, but not 100%. The condensing turbine in the cogeneration plant produces hot water as well as electricity, he explained, so the hot water can be used in the plant to either generate steam or displace energy. In reply to a follow-up question from Mr. Collins, Messrs. Giardetti and Ruberto reiterated that the company is only required to deploy a percentage of the useful energy locally.

Mr. Collins asked whether an injection would actually fulfill the contract more effectively by delivering electricity back to the grid. Mr. Giardetti said the contract addresses generation minus the station service load, with a separate revenue meter tracking net energy. From that perspective, he said there are actually two separate contracts involved.

Ms. Griffiths said she had read that there would be no issue if Resolute were incorporated in the distribution system, and that the company's position would be permissible if it were not

directly connected to the grid. Messrs. Giardetti and Vegh confirmed that was Resolute's view. Mr. Zaworski asked Ms. Griffiths to clarify the question, and she asked whether the company would be in violation of the demand response auction if it had connected through the Thunder Bay Hydro system. Mr. Zaworski replied that, had the facility been connected through the distribution system, and had an aggregator selected it as a contributor to its demand response portfolio, only the withdrawal quantity would have been eligible under the demand response auction.

In reply to a question from Mr. Sanders, Messrs. Giardetti and Ruberto said the CHP system is equipped with revenue-grade meters, powered off the company's PPA. Mr. Giardetti added that the meter captures the reduction in load that occurs when the generator is operating, enabling the facility to shift from withdrawing to injecting. On that basis, the company's position is that it is not violating the terms of the demand response program.

In reply to a question from Mr. Forsyth, IESO staff said Resolute would qualify if it were connected to the IESO grid both directly and separately. Mr. Forsyth asked what the difference would be, apart from the electrons flowing down different cables. Ms. Wagner said the capacity supplied on the second meter would stand outside the demand response auction and belong in the energy market.

Mr. Forsyth said the issues raised by this case had never come up through the evolution of the demand response auction, and asked whether they represented an oversight that should be corrected. Mr. Zaworski said the IESO's stakeholder engagement on the demand response auction heard a number of questions about the way loads are recognized, some of them similar though not identical to the situation at Resolute, and both the questions and the IESO's answers are on record. One of the questions from participants had to do with scenarios where there were various loads behind a generator. The IESO responded at the time that participants would have to register those loads independently of the generator in the physical market.

Mr. Urukov asked the Resolute representatives to respond to the third of the scenarios Ms. Wagner had presented. Mr. Giardetti said Resolute's position was that its demand response obligation served to reduce load. In the scenario in question, the hypothetical provider was increasing generation, which he said Resolute was not doing. While the IESO is currently considering a scenario under which the IESO might in future credit providers for delivering new supply, he said Resolute was only asking for recognition of its contribution to reducing load.

Mr. Forsyth said it was ironic that many market participants now receive credit for displacing load with battery storage, as long as they aren't injecting new supply into the system. Mr. Zaworski said those credits are possible under the terms of the demand response auction.

Ms. Griffiths commented that Resolute had faced a derate of about 50%, with no changes to the Market Rules or the Market Manuals, after participating in the demand response auction for at least two years, and in the programs that preceded it. Mr. Ruberto said the auction occurred in December 2015 and took effect in May 2016. In reply to a question from Ms. Griffiths, Mr. Giardetti said Thunder Bay Hydro would absolutely have been aware of Resolute's previous arrangement with the OPA, since the facility would have gone through the meter installation

process. Ms. Savage asked whether Resolute considered the demand response auction identical to the OPA programs in which it had previously participated; Mr. Giardetti said no, since the DRA is an auction.

Mr. Dent asked whether Resolute had any concern that its proposed amendment might be used or interpreted differently by market participants with similar configurations but different assets, and whether the situation warranted a closer look to prevent unintended consequences. Mr. Giardetti said any new registrant would have to submit a plan to the IESO, which would then have the option of reviewing and either accepting or rejecting it.

The Chair noted that the meeting was approaching its original end-time and observed that participants seemed willing to extend the meeting beyond its scheduled time. Technical Panel members agreed to continue discussions.

Mr. Vegh reviewed past IESO presentations on the demand response auction, stating that the purpose of his submission was to restore the Market Rule to the original intent that staff communicated to the Technical Panel on January 20, 2015. He expressed Resolute's view that, as the guardian of the Market Rules, the Technical Panel must uphold the integrity of a process in which market participants have invested a lot of money, on the expectation that decisions will be based on the rules. The standard process, he said, is for staff to put forward an amendment to the Market Rules if they see a gap in the way the existing provisions are being implemented. He added that the IESO's rules call for the Panel to vote on the proposed amendment, rather than referring it back to the DRWG.

Agenda Item 5: Q&A on Agenda Items 3 and 4

The Chair invited further discussion to determine next steps, adding that Resolute's characterization of the staff proposal was not in accordance with the staff memo to the Technical Panel. The intent was to refer it back to the DRWG, with the expectation that it would come back to the Panel for further consideration no later than June 29 and a vote in August.

Mr. Lake cited the operating terms in Market Manual 7.6, addressing measures initiated by the IESO to influence the timing of customer demand. He noted that the manual said nothing about injections into the system, and asked how Resolute's position was consistent with that definition. Mr. Vegh said he didn't have immediate access to the definition, but asserted that nothing in the proposed amendment referred to activation by injection. He added that the proposal focused on the Market Rules, not the Manuals, which he said are prepared by staff without input or oversight from the Technical Panel.

Mr. Urukov said the proposed amendment as drafted recognized the existence of a separate meter, but that the channel is defined under the Market Rules. Given the reference to Channel 1 he said he wasn't clear whether the amendment would produce a consistent solution. Mr. Vegh said the inconsistency was that the IESO's requirements have changed, given that the configuration at the Resolute facility was permitted when the demand response auction was conducted. He added that any decision to disqualify an activity under the demand response rules should be made explicitly via the Market Rules, not treated as a technical matter related to meter configuration. He expressed Resolute's view that the Market Rules set out the purpose,

the meter configuration is a means to that end, and the role of the Market Manuals is to implement and facilitate the rules, not to add supplementary requirements.

Mr. Sanders said it appeared that Resolute could be taking advantage of two programs simultaneously. He asked whether there were any provisions that, in Resolute's view, either prevented it from doing so or allowed it to. Mr. Vegh said Resolute would be open to "tweaking" the proposed amendment in order to avoid gaming or double-dipping, stating that he hadn't appreciated when the language was drafted that that would be a driving concern. He added that, if this is the IESO's position in relation to demand response, it should be applied consistently across the full range of rules, programs, and incentives, without any one market participant being singled out.

Mr. Samant asked for confirmation that the intent was to resolve the issue in time for the December 2019 demand response auction, not to set restitution for the 2018 auction. Mr. Vegh said the Technical Panel only has the ability to amend the Market Rules.

Mr. Samant asked whether the DRWG's initial response to the amendment, and the lack of stakeholder comment, might have been driven by the absence of a full IESO presentation at that time. Mr. Vegh said he couldn't speak to the IESO's position at that meeting, but said that the record available at that time was no reason to go back to the DRWG now.

Mr. Dent asked IESO staff whether they had any work in progress that would address the concern and recognize the potential system benefit of injecting incremental capacity. Ms. Wagner said the results of an upcoming stakeholder engagement on the transitional capacity auction could enhance the December 2019 demand response auction, and that any proposed Market Rule amendments on the transitional capacity auction would be brought back for Technical Panel review and assessment. A future enhancement could acknowledge injections and allow uncontracted capacity to participate in the transitional capacity auction in 2020. But in the first phase, she said the focus will be on uncontracted generation and recognizing the value that injections provide.

Mr. Vegh said that scenario would not apply to Resolute's configuration, where injections are treated as equivalent to demand response. He said demand response as it is currently configured has issues to address, the new considerations now being introduced are complex, the timeline for addressing them is ambitious, and they have nothing to do with what Resolute is proposing.

Mr. Dent asked whether Resolute would be affected by the potential rule changes Ms. Wagner had described. Mr. Vegh said Resolute would participate in the broader review if the IESO first restored the existing rule to what the company sees as its original interpretation. The auction is bound to be changed and reformed over time, he added, but Resolute should not have to wait for that process to unfold before the system is restored to what the company sees as the configuration the Technical Panel approved in 2015. Once that work is complete, he said it will be appropriate for the IESO to raise broader issues in the transition to the incremental capacity auction, with proper notice under the Market Rules, so that Resolute and any other market participants can participate in the process.

Mr. Urukov asked whether the upcoming stakeholder engagement would cover both dispatchable and non-dispatchable resources. Ms. Wagner noted that an engagement plan was in place to address the two phases of the transitional capacity auction. Mr. Giardetti said changes to the incremental capacity auction would be applied as contracts expire, and Resolute's PPA runs until 2023.

Mr. Dent asked whether the IESO's proposed rule changes would address the problem Resolute was raising. Mr. Vegh said he couldn't say until he saw the actual rule change.

Ms. Griffiths asked whether Resolute would advocate that its meter configuration be allowed under the transitional capacity auction, under rules that placed demand response in competition with injection. In that event, she said, other demand response participants might take the position that the treatment of behind-the-meter injection and non-injection resources should be a priority for the TCA. Mr. Vegh said Resolute's position under that hypothetical scenario would be that the status quo should be maintained, but that the question should be decided through the standard process for amending the Market Rules. If Resolute didn't like the result of that process, it could respond through whatever avenues were available, but would acknowledge that the amendment had gone through the appropriate process and airing. The key point embedded in the question, he added, was that Ms. Griffiths was describing a formal Market Rule amendment process.

Ms. Griffiths recalled asking at the DRWG meeting whether the IESO would come forward with an alternate amendment to the Market Rules if it agreed that Resolute's configuration should exist under the demand response auction. She said the IESO responded at the time that staff had not gone down that path, and was not planning to at that time. She asked again whether the existing demand response auction could serve as a mechanism for Resolute to maintain a status quo that has been in place since 2013, in a way that prevented the consequences Ms. Wagner had presented. Ms. Wagner said it would be difficult to put forward language that accommodated Resolute's request and addressed unwanted consequences, foreseen or not.

Ms. Savage recapped the discussion so far, recalling the Demand Response Working Group's extensive stakeholder engagement in 2014 and 2015 and the training session that was subsequently organized for stakeholders.

Mr. Zaworski returned to his earlier statement that the stakeholder engagement had covered circumstances that were similar but not identical to Resolute's, adding that a staff presentation to the stakeholdering group had highlighted the facility registration process under the demand response auction. He said the presentation laid out two avenues to register facilities, physical or virtual. In reply to a question about whether an existing load could participate in the demand response auction, the IESO advised at the time that an already-metered facility would first have to register its load in an IESO-administered market. That communication was sent to all stakeholders, Mr. Zaworski said.

Cara Degelman, Resolute Forest Products, asked for the date of the presentation. Mr. Zaworski said it took place on July 23, 2015. He recalled that the IESO had received multiple questions from stakeholders about embedded loads participating in the demand response auction, held a

stakeholder session and participated in further discussions on the topic, and did inform stakeholders of its position under the Market Rules.

Mr. Zaworski projected a slide from that presentation, which Ms. Savage characterized as an explanation of how a load must be metered to participate in the demand response auction. Responding to Resolute's position that IESO staff changed their minds on the interpretation of the rules in 2017, she said the July 2015 presentation supported the IESO's view that it was implementing the rules as they stand, and that the proposed amendment therefore recommended a design change.

Ms. Griffiths asked why that point wasn't included in the staff presentation. Ms. Savage said she hadn't anticipated the contention that the IESO had never discussed the matter with stakeholders, and saw the need to demonstrate that the discussion was on the record.

Mr. Vegh expressed surprise at the inclusion of the July 2015 reference in the discussion and said he did not accept the conclusion that the presentation constituted notice that Resolute's current configuration was not permitted. He questioned the process by which the IESO had requested and provided documentation in advance of the Technical Panel meeting and suggested a lack of fairness in pointing to one stakeholder communication to refute the company's position without advance notice.

Ms. Savage said her intention was not to be unfair, but to address the question of whether the proposed amendment constituted a change in design. Mr. Vegh reiterated his position that the IESO's treatment of the Thunder Bay facility represented a change in the Market Rule.

Mr. Urukov asked how Resolute had explained its load reduction to the IESO, and what comments it had received back when it explained its configuration. Mr. Vegh agreed to supply that documentation to the Technical Panel. Mr. Urukov underscored that the IESO "notionally accepted" the megawatts from Resolute, and asked what it had communicated back to the company. Ms. Wagner agreed to supply that documentation.

Mr. Bieler asked whether the issue should be brought forward to other demand response participants with a request that they give it their consideration, given that the initial call for stakeholder feedback received no responses. Without their input, he said, it will be difficult to anticipate the possible impacts of the proposed amendment, or to know whether other market participants have configurations similar to Resolute's. He also asked Technical Panel members serving on the DRWG whether the reference back to the working group was useful, given the Panel's February 6 decision to expedite consideration of the proposed amendment.

Mr. Samant said the DRWG meeting received the presentation from Resolute, but IESO staff had not presented its position before today. Mr. Sanders said he'd understood the proposed amendment would be brought back to this meeting in order to expedite it. Mr. Bieler said he'd hoped to hear perspectives from the DRWG and other market participants. Mr. Samant said Resolute had provided its position.

Ms. Griffiths said she'd spoken to numerous companies in her sector following the DRWG meeting, and the main question back was how the IESO could have been unaware of Resolute's configuration. Ms. Griffiths' sector colleagues are nervous at the prospect that a change in

interpretation can trigger a 50% reduction in the obligation for a resource that first entered the system under the OPA demand response program. The market participants in Ms. Griffiths' contact group had no suggestions on configuration, or on the range of resources that should be recognized under the demand response auction—and they didn't see that as the issue. On that basis, she said companies made a deliberate decision not to comment on the DRWG presentation.

Mr. Bieler said he could understand Resolute's position, but added that he couldn't see a solution that would be fair to the company while upholding the intent of the Market Rules. He suggested further deliberation, in the form of an in-camera conference call for Technical Panel members.

The Chair said the question before Panel members was whether to refer the proposed amendment back to the April meeting of the Demand Response Working Group, or bring it forward for further discussion at the next Technical Panel meeting. Mr. Bieler said he was hesitant to postpone the topic by a second Technical Panel meeting to wait for the DRWG. Mr. Vegh said the Panel had the option of deferring the topic to its next meeting, requesting further submissions from anyone affected by the proposed amendment, and potentially inviting stakeholders to address a specific set of questions.

Mr. Wu said he would support a follow-up in-camera conference call. Ms. Griffiths said the call should not be held in-camera. She suggested the Technical Panel assemble follow-up questions for IESO staff and Resolute, then reconvene for further discussion and a potential vote, potentially in two weeks.

Mr. Bieler asked whether a Technical Panel decision in April would get the issue to the IESO Board any sooner than a final resolution at the Panel's June meeting. The Chair said the design and the specific language of any Market Rule amendment might be two separate votes and processes. Mr. Bieler asked whether there were any Board meetings scheduled between the April and June Technical Panel sessions and the August Board meeting. The Chair said the Board was scheduled to meet June 12, adding that when staff looked at timelines leading into the December 2019 demand response auction, the timing of the August meeting was deemed suitable. Mr. Bieler said that schedule left limited room for contingencies. With the Board meeting approximately six times per year, Mr. Sanders said the Technical Panel should meet in advance of its next scheduled session, at least in-camera.

Ms. Griffiths asked whether the IESO could obtain an outside legal opinion on the proposed amendment, to assess any risk of the scenarios Ms. Wagner had presented. Mr. Dent asked whether outside advisors could recommend appropriate wording. Mr. Urukov said the language of the Market Manuals would also have to be adjusted to address any concerns. The Chair replied that if a clear design intent is expressed through a Market Rule amendment, the Manuals are revised accordingly.

Given the complexity of the issue, Mr. Bieler asked whether a mechanism was available to allow Resolute's demand response obligation to be grandfathered for a year, to allow additional time for the Technical Panel to consider amendments to the Market Rules and Manuals and their implications. Ms. Savage said Resolute could avail itself of the existing Market Rule exemption

provision. In reply to Mr. Bieler, she confirmed that process would restore Resolute's obligation to 55 MW pending a decision on any Market Rule amendments, as long as the proposal was accepted by the IESO's exemption panel.

Mr. Bieler asked whether the exemption panel would be interested in hearing an opinion from the Technical Panel on whether to grant an exemption. The Chair said he hadn't considered the question, but the Technical Panel could express an opinion. Mr. Vegh said independent legal assistance could be helpful, adding that Resolute hadn't anticipated the unintended consequences that could result from the proposed amendment. He offered to work with IESO staff on phrasing that would avoid those consequences.

Mr. Forsyth asked whether the IESO could use an interpretation bulletin to address the situation. Reena Goyal, IESO, said the issue Resolute was raising would be more appropriately addressed through a Market Rule exemption, and Mr. Vegh said he would prefer a more transparent mechanism than issuing an interpretation bulletin.

Ms. Griffiths asked whether staff would be willing to work with Resolute to address any unanticipated consequences from the proposed amendment. She added that, at present, Panel members had no way of knowing whether the amendment constituted the right rule, or what would.

The Chair said he was hearing two issues: the implications and design issues that had emerged, some of which might be addressed through Market Rule language, and the design language.

Ms. Griffiths asked for a two-week period in which the IESO and Resolute would work together to address unintended consequences, while Panel members take the opportunity to list the questions raised by the discussion. The Chair said he wasn't sure how far those discussions would advance in two weeks. Mr. Vegh said it shouldn't be that difficult to come up with something. A participant asked whether Resolute's contract gave it authority to curtail generation. Mr. Vegh declined to discuss specific contractual terms in a group setting, but undertook to return to the Panel with input.

The participant asked whether the IESO can force generators out of the system if their involvement becomes problematic. The Chair said the IESO has that authority as the system operator, but distinguished between the economic issue under discussion and problems with reliability.

Ms. Savage proposed that Panel members compile a list of questions while the IESO and Resolute work on language, then continue the discussion at the Panel's regular meeting in April. She said the slightly longer timeline would allow for further discussion, and to share materials far enough in advance that Panel members have time for advance review. Mr. Samant asked whether a presentation to DRWG would be worthwhile. Mr. Forsyth said the DRWG was looking to the Panel for a technical solution, and Ms. Savage noted that any Technical Panel recommendation would have to be posted ahead of final deliberations.

Ms. Griffiths proposed that Panel members submit questions to Jason Grbavac within a week, to allow time for the IESO and Resolute to respond well in advance of the April meeting. Mr. Vegh and Ms. Savage said that the proposed timing was reasonable.

Mr. Bieler thanked both teams for the in-depth information they had provided on the topic. On a point of personal privilege, he recalled attending the February 14 Stakeholder Advisory Committee meeting and hearing a member describe the Technical Panel as a rubber stamp for the IESO. He said the comment was unfortunate and suggested SAC members might need education on the Panel's mandate. The Chair said the comment certainly didn't come from IESO staff. Mr. Bieler said he and the SAC member had had a cordial conversation afterwards, but suggested there was still an opportunity for clarification. Ms. Griffiths said the minutes of the last two meetings should be sufficient to counter the misperception. Mr. Bieler agreed: "We just proved today that we don't rubber stamp anything."

Other Business

With no other business to discuss, the meeting adjourned at 12:35 PM.

Action Item Summary			
Date	Action	Status	Comments

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Prospective Technical Panel Schedule

Engagement Update, April 16

The following is a snapshot of the initiatives that the IESO expects may reach the TP at some point in 2019. Market Rule Amendments that are planned for TP review at meetings can be in form of information items as well as voting on proposed amendments.

Please note that this table only represents an estimate on when items could be discussed at TP meetings which may depend on the progress at the respective engagement meetings. As such, these dates are subject to change.

Initiative	April 16	May 21	June 25	August 13	September 24	November 26
Resolute Market Rule Amendment Submission on DR Auction		If required, pending outcome of April 16 TP meeting				
Transitional Capacity Auction						<i>TCA Phase II TBD</i>
Recommendations from Governance and Decision-Making Advisory Group: - Dispute Resolution Panel Changes - Review and potentially revise Technical Panel composition and process						
MRP Education						
Omnibus Package						

V



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Memorandum

To: Technical Panel
From: Robert Doyle
Date: April 9, 2019
Re: MR-00437: Demand Response – Registration and Metering Requirements

Attached for Technical Panel review and consideration is a revised market rule amendment proposal submitted by Resolute (MR-00437-R00). Following the March 5, 2019 Technical Panel meeting, Technical Panel members submitted questions to the IESO and Resolute seeking clarifications on the rule amendment proposal. Resolute's responses were provided to the Technical Panel on March 27, 2019. The IESO provided its responses to the Technical Panel on April 2, 2019.

The discussion at the April 16, 2019 Technical Panel meeting will include brief introductory remarks by the IESO and Resolute, followed by an opportunity for Technical Panel members to ask questions and seek further clarifications. Following that discussion, Technical Panel members will be asked to consider next steps in the rule amendment process, where the following options are available to the Technical Panel:

1. Request that the IESO post the market rule amendment proposal for stakeholder comment for a period of no less than 7 days, in advance of the Technical Panel vote on the amendment (Chapter 3, section 4.3.13);
2. Vote to recommend/not recommend the market rule amendment to the IESO Board of Directors without first seeking further stakeholder input (Chapter 3, section 4.3.13).
3. Identify whether the Technical Panel requires further information and/or further discussion prior to requesting that the IESO post the amendment proposal for stakeholder comment or prior to the Technical Panel voting on the amendment.

Each of these options would provide for a Technical Panel vote on this market rule amendment to occur by the August 13, 2019 Technical Panel meeting, a commitment that the IESO made previously.

Accompanying materials available on the Technical Panel [webpage](#) and listed below for reference.

- Revised Resolute Market Rule Amendment Proposal dated March 26, 2019
- Resolute response to Technical Panel member questions dated March 26, 2019
- IESO response to Technical Panel member questions dated April 2, 2019
- Update to Resolute response dated April 2, 2019

IESO Recommendation and IESO Position

The IESO recommends that the Technical Panel follow its typical process to request that Resolute's amendment proposal be posted for stakeholder comment for a two-week period, in advance of the Technical Panel vote on the amendment proposal at its meeting on May 21. A significant amount of information has been provided to the Technical Panel since the February DRWG meeting and since the amendment submission was first posted for stakeholder comment on February 7, 2019.

If the Technical Panel chooses to proceed with a vote on the amendment proposal at its April 16 meeting, the IESO will not be supporting Resolute's proposal for the reasons outlined in the IESO response document dated April 2, 2019. The IESO believes that the proposed amendment would have an adverse impact on the IESO's reliable and efficient operation of the IESO-controlled grid, and would introduce inconsistency in the manner in which participants are treated in the IESO-administered markets.

/rd

Response information to the Technical Panel regarding the Market Rule Amendment Submission initiated by Resolute and discussed March 5, 2019.

In an effort to clearly address the questions presented to the IESO by members of the Technical Panel with respect to the Resolute's proposed market rule amendment, and to report on the outcome of IESO's continued assessment of the DR design change entailed by the submission, the IESO has prepared a response to the Technical Panel in two parts:

Part 1: provides an overview of the IESO's position with respect to the submission;

Part 2: provides direct answers to the questions raised by the Technical Panel with respect to the submission and elements of IESO's response at the March 5, 2019 Technical Panel meeting.

Part 1: Summary of the IESO's Position with Respect to the Market Rule Amendment Submission

1. The IESO does not support Resolute's Market Rules amendment submission as it would allow DR participants to continue to leverage features of historical demand response programs that were eliminated in the design of the contemporary demand response auction (DRA). This would have an adverse impact on the IESO's reliable and efficient operation of the IESO-controlled Grid (ICG), and would introduce inconsistency in the manner in which participants are treated in the IESO-administered Markets (IAM).
2. The IESO utilizes market mechanisms, including the demand response auction (DRA), to support the reliable and efficient operations of the IESO-controlled grid (ICG). The DRA was designed as a mechanism for securing DR capacity through reduced withdrawals from the ICG.
3. The measure of DR capacity for hourly demand response (HDR) resources participating in the DRA, like Resolute's Thunder Bay facility, is premised on establishing a baseline measurement (highest 15 of 20 days) of consumption at the ICG. Activations are also measured at the ICG, and the difference between the baseline consumption and consumption after activation levels determines the success of the activation.
4. Resolute's proposed amendment would allow DR participants to satisfy their DR capacity obligation, not through load reduction at the ICG, but through a combination of reductions at the ICG and behind-the-meter activities that may not result in the expected DR capacity contribution being realized at the ICG.

5. Resolute's proposed method for demonstrating delivered DR capacity was permitted under the former DR3 program, which was a contract based capacity procurement designed and administered by the former Ontario Power Authority. The method was not designed with full regard to its value for system operations. It persisted into the CBDR program as a transitional element, but has never been a feature of the DRA.
6. Incorporating DR3 methodologies for calculating delivery of DR capacity into the DRA would represent a regressive design change that would detract from, rather than support the reliable and efficient operation of the ICG. It would also entail settlement treatment for DR participants that would be inconsistent with treatment of participants across programs, raising concerns of fairness and equity.
7. **Reliability**: A physical DR resource's withdrawal from the ICG is measured by an IESO Revenue Meter. When the IESO activates a DR resource, it expects to see a corresponding reduction at the ICG as measured by an IESO Revenue Meter. If Resolute's amendment were to be adopted, the IESO may never see the full reduction of consumption at the ICG corresponding to a DR activation since some portion of the load reduction could occur behind-the-meter. The IESO would therefore be unable to rely on DR participants for load reductions at the ICG. This scenario presents an unacceptable outcome impacting the reliability of the ICG.
8. **Efficiency**: Even if the technical challenge of anticipating and planning for fractions of DR capacity obligations being realized at the ICG were to be resolved, the resulting program would constitute a grossly inefficient DR mechanism; participants would receive payment for a certain level of availability while only being expected to provide a fraction of that level when activated. Fundamentally, ratepayers would not get all that they are paying for. This inefficiency is inherent in Resolute's proposed model and cannot be remedied through a refinement of their Market Rule amendment submission.
9. **Consistency**: Applying consistent settlement methodologies is fundamental to the fair treatment of market participants in their participation in the IAM. Consistent treatment of participants is also key to maintaining ratepayer equity in establishing market charges and payments. In order to apply consistent settlement methodologies, a participant's metering configuration must also be consistent for all programs in which they participate. Resolute's proposal would result in DR participants accessing metering configuration options for demand response that would differ from the configurations they have registered for their participation in every other program. This would result in inconsistent and unfair treatment, and cannot be supported for that reason.
10. Market Participants have the ability to change the ways in which they participate in the IAM by adjusting their registration and metering configurations. DR participants with behind-the-meter generators who wish to make the gross load of their facility available for participation in the DRA are able to do so under the existing market rules (by

registering their load and generation as separate resources). However, any changes they make to their registration details for DR may impact the treatment they receive in other programs. As stated above, a participant's metering configuration must be consistent for all programs in which they participate for reasons of consistency, fairness and equity.

11. The IESO has not changed its interpretation of the DR Market Rules, and has always operated under the same understanding of the DR Requirements. Resolute's interpretation, according to which they have relied upon the DR3 methodology, only became apparent to the IESO when Resolute failed a DR activation in December, 2017. Resolute's purported justifications for relying on their interpretation are currently the subject of an ongoing dispute before the dispute resolution panel. Whatever the outcome of that dispute, the IESO does not support Resolute's rule amendment submission for the reasons outlined above and further articulated in the answers to the TP questions below.

Part 2: Technical Panel member questions on the Resolute market rule amendment

A. General Questions:

- 1. Could the IESO clarify why it doesn't support Resolute's Market Rule Amendment submission? Is it because in effect it i) results in a design change or ii) it would result in unintended consequences or iii) both?**

The IESO does not support Resolute's Market Rule (MR) amendment submission for both reasons. IESO's initial opposition to Resolute's proposed MR amendment was grounded on the fact that the submission was not a simple clarification of the MRs, contrary to Resolute's assertion; it entailed a design change with implications for metering, settlements, and operations. The IESO's position was that the submission required a more thorough assessment in order to identify and address potential unintended consequences and technical challenges it presented.

In fact, a range of negative consequences would result from adoption of the amendment. Upon further assessment, the IESO does not believe these consequences can all be mitigated because the configurations permissible in the historic DR programs do not appropriately reflect the load reduction provided at the ICG. The proposed amendment entails reliability risks and problems of efficiency and consistency. It cannot be supported for these reasons.

- 2. What Market Rule or Manual did Resolute violate that caused the reduction of 25-30 MW of DR capacity that was registered in the OPA programs?**

The DR Auction (DRA) is not a continuation or extension of OPA Demand Response Programs. The IESO's DRA operates under its own program requirements, designed with full regard to its

impact on system operations, and Resolute has not achieved its load reduction capacity obligation per those requirements. Rather, Resolute has confused the market rules that applied to the former CBDR program with the market rules that apply to the DRA; it wishes to rely on old rules that do not apply to current DR market participants.

The DRA requirements have always distinguished between resources that are revenue metered by IESO and resources that are not revenue metered by IESO (i.e. resources that are LDC revenue metered). Physical HDR resources, like Resolute's Thunder Bay facility, are revenue metered by IESO (MM 12 ss. 4.3; 6.2.1; 6.3.2).

A revenue meter is the designated source of metering data used by the IESO for settlement purposes (MR Chapter 11 – definitions). A physical load on the IESO-controlled grid, including Resolute's Thunder Bay facility, is represented by the measurements taken by its associated IESO revenue meter.

The IESO determines whether a physical DR participant has contributed its DR capacity when activated in the DR program with reference to the reduction in load as measured by the participant's IESO revenue meter.

Participants in the DRA are aware of the IESO revenue meter associated with their DR resource; The IESO meter association with a facility is made clear to participants when they register the facility.

Resolute's proposal would allow a DR participant to demonstrate DR capacity contribution, not by demonstrating reduction of load at the grid, but on the basis of a calculation combining measurement data from both the IESO revenue meter and Resolute's "Mill meter" (which measures the output of their behind-the-meter generator). The resulting calculation does not measure the load reduction at the ICG. There are no Market Rules or Manuals applicable to the DRA that allow DR participants to do this.

In contrast to the DRA, the former Capacity Based Demand Response Program (CBDR) did accommodate the approach to demonstrating DR capacity contributions that Resolute wishes to reintroduce. That approach was provided for by MR Chapter 7, section 17.2¹, and applied only to CBDR participants, not DRA participants. The approach set out in that section was a transitional element from the old OPA DR3 capacity contracts, and was never included in the DRA.

¹ Market Rules, Chapter 7, section 17.2.1.2; Market Manual 5.5, article 1.6.23.1 and 1.6.23.4; Market Manual 5.5, Appendix E, E.3.1

The CBDR approach required CBDR participants to reconcile meter data from both IESO and non-IESO revenue meters and provide the meter data to the IESO with reference to IESO approved Measurement and Verification (M&V) Plans, as registered by CBDR participants.

Resolute has confused the CBDR with the DRA. The CBDR method for demonstrating DR capacity is not part of the DR Program; no rule provides for, or accommodates it, unlike the clear provision made for it in the CBDR. The method was a transitional vestige from the OPA's DR3, and was not designed with full consideration for its impact on the operation of the ICG.

3. From where does the IESO draw its authority to change requirements in a DR Program and is authority absolute?

The IESO has not changed the requirements in the DR Program since the inception of the DRA. Rather, Resolute had been operating under its own interpretation of the program requirements, which interpretation relates to past programs; their interpretation of the DRA only became apparent to the IESO when Resolute's Thunder Bay facility failed a DR activation and Resolute contested the resulting non-performance charges.

4. If we accept Resolute's position, going forward should we not consider demand response and incremental capacity as the same thing?

From a capacity perspective, going forward, under the Incremental Capacity Auction, both demand response and generation will hold capacity values commensurate to their ability to contribute to system reliability (i.e. capacity qualification). Given that Resolute's proposal is focused on clarification of the Market Rules for the existing DR auction, it is important to note that the current DR auction is meant to only compensate the DR capacity available through load reduction at the ICG. The Incremental Capacity Auction will have its own process for qualifying capacity from each resource.

B. Questions on process:

1. An issue was raised with respect to submitting an Exemption Application by Resolute on this issue. I did not follow the IESO response during the TP meeting - what was the reason the IESO was not in favour of this?

The IESO does not oppose Resolute submitting an Exemption Application on this issue. We would note, however, that any Exemption Application would have to be with reference to a specific Market Rule (or Market Rules), and would be subject to approval by the Exemption Review Panel, a subset of the IESO's Board of Directors. For clarity, the IESO is unaware of any DR Market Rule, the exemption from which would assist Resolute in achieving their objective. Rather, Resolute's objective would require the Market Rules to be supplemented with new provisions.

As a point of further clarification, the IESO is unaware of any Market Rule provisions that unfairly discriminate against resources with self-generation, like Resolute's. We are also unaware of any technical limitation preventing Resolute from registering its load facility differently such that it would be capable of providing demand response at the ICG equivalent to the demand response it can provide behind the meter. Resolute is free to register its facility differently, for future auctions, if it elects to do so.

- 2. Are the IESO and Resolute working on a market rule amendment that would ensure that there are no unintended consequences but that would accept the Resolute configuration that was approved in the past? If yes, when will a revised Market Rule Amendment be shared in advance of the April Technical Panel meeting? If no, why not?**

The IESO has worked to identify potential strategies for addressing the inherent risks and challenges Resolute's amendment submission entails. To date the IESO has been unable to identify a way to accept Resolute's proposed configuration for reasons explained in Part 1 above. In good faith, we have invited Resolute to meet and further discuss the obstacles we have identified, and we are open to the possibility that they may be able help us identify potential solutions we have not considered. The IESO has proposed dates for a meeting and remains prepared and willing to meet with Resolute.

C. Questions on reliability / operations::

- 1. From an operations point of view, do we see load management/demand response and generation flowing into the system as equivalent? If not, then what are the operators concerns?**

From an operations point of view, load management and generation flowing into the system are different and cannot be equated. Changes in injections and withdrawals result in different loading on the power system and create different power flow distribution across the power system. When the IESO dispatches a DR resource, it expects a certain reduction in consumption at the ICG and plans its operations accordingly. In the case of injection, the IESO may need to operate differently as the resulting power flow distribution on the power system will be different. Unanticipated flows on the power system may impact both the efficiency of the IAM and the reliability of the ICG.

Aside from operational differences between injections and withdrawals, a key operational concern with Resolute's proposal is that it would result in DR participants reducing less load at

the ICG than they had been activated for. If our market systems economically schedule, or the IESO manually activates a DR resource for 50 MW, the IESO expects a 50 MW reduction at the ICG. On Resolute's proposed amendment, the total ICG demand may only be reduced by a fraction of the expected 50 MW load reduction. On Resolute's proposed amendment, the IESO may only receive a fraction of the activated load reduction at the ICG. This raises a significant reliability concern.

- 2. The Market Manual, part 7.6, System Operations, (Public), page 12, defines demand management as "Measures initiated by the IESO ,.... to influence the amount and timing of customer electricity demand." In my opinion this does not include generating and providing power/energy to the grid. Is the definition wrong or being used in a different manner now? The definition has been supplied by the IESO.**

The definition provided is correct. Behind-the-meter generation can assist DR participants in achieving their demand response capacity obligations, but only to the extent that it reduces their load consumption at the ICG.

D. Questions of registration / qualification:

- 1. During the registration process for the DRA, did Resolute provide information in the optional field that asked how the MW's would be delivered? If so, please provide this information if it isn't confidential.**

Since the inception of the DR auction, Resolute has only submitted its load reduction plan once and that was for the 2019 DR auction. For the 2019 DRA, Resolute's Load Reduction Plan stated:

Load reduction plan for the Thunder Bay facility is to shut down its operation of its TMP (thermal mechanical pulp mill) and Paper Machine to obtain and even exceed the level of required contracted capacity obligation.

- 2. It appears that the IESO had no pre-auction qualification test for loads. Loads only had to write down on a Registration Application how much Demand Response they could achieve. Testing only occurred after the fact. Please confirm.**

Yes, the IESO does not conduct any pre-auction qualification tests. The IESO relies on in-market and test activations to assess the performance of DR resources and DR participants are subjected to non-performance charges for not delivering capacity in accordance with their capacity obligation.

3. **Was it a flaw in the IESO process to qualify a resource in the DR Auction by the MW quantity it submitted in its registration? To clarify this question: It seems there is no requirement to prove the DR MW qualification until an IESO DR Activation Test is undertaken. This test was not held in the first year of the DR Auction but it was held in the following year. As a result, had a test been required in an earlier year, this item would have come to light sooner. Conversely, if a test had never been undertaken, this item may never have been noticed.**

The IESO does not believe there is a flaw in how the IESO qualifies resources in the DR Auction. The DR Auction was created to provide a transparent and cost-effective way to select the most competitive providers of DR, while ensuring that all providers are held to the same performance obligations.

The DR Auction's qualification process was designed to balance between encouraging DR participation and appropriately capturing DR resource capabilities. Based on stakeholder feedback received during the DR Auction design, the IESO was made aware that requiring DR participants to prove DR capability prior to the commitment period can cause a higher barrier to participation and would discourage competition. The reason provided by stakeholder participants was that in the capacity qualification timeframe, aggregators may not have fully contracted their contributors' capacity for the commitment period and directly-participating loads may not have finalized their DR capabilities over the commitment period due to commercial uncertainty. Based on this feedback, for the DR Auction, the IESO chose to rely on in-period testing for DR resources to ensure that capacity is available and deliverable. Resources that do not clear testing are subject to non-performance charges and could be further referred to the IESO's compliance department.

As the IESO transitions from the DR Auction into the Transitional Capacity Auction, and eventually the Incremental Capacity Auction, the IESO believes that the value of upfront capacity qualification increases in order to maintain reliability.

4. **Please provide the documentation showing Resolute's proposal for their current demand response configuration. (Resolute)**
5. **Please provide the documentation showing that the IESO (or OPA) accepted Resolute's demand response configuration.**

The online registration process is participant driven. Through an online submission tool, HDR participants select one of their non-dispatchable load resources—already registered with the IESO—to participate in the DRA as an "HDR resource." The non-dispatchable load resource is already associated with an IESO revenue meter, and the same IESO revenue meter continues to be the associated with the resource when it is selected as an HDR resource. The meter association with the non-dispatchable load facility was made clear to Resolute when they

registered the facility. The IESO has accepted no other metering arrangement for Resolute in the DR Auction.

6. When Resolute transitioned from Contracted DR (CBDR/DR3) into the DRA, did they make any changes to their configuration that triggered the reduction in DR MW's?

Participant DR Capacity Obligations were not transferred from CBDR into the DRA. DR Capacity Obligations are set annually within the DRA, as such, there was no reduction to Resolute's MW when they entered DRA as a participant. Rather, the rules that Resolute wished to rely upon in order to achieve their capacity obligation were not carried into the DRA for the reason described in Part 1, and the IESO's answers in Part 2, section A. The IESO believes that Resolute could still achieve this MW capacity under the rules applicable to the DRA, but it has elected to register and operate its facilities in a manner that excludes this possibility, for its own business reasons.

E. Questions on cost:

- 1. It is my understanding from the discussion last week that Resolute is compensated by two revenue streams: a power purchase agreement for the energy and a demand response commitment. In light of the Resolute configuration (and without discussion the specific contractual terms) does the 2 streams of revenue generate over compensation? If not, why not?**

The IESO is unable to answer this question directly as it is under an obligation of confidentiality to Resolute pursuant to the terms of Resolute's PPA.

In general terms unrelated to Resolute's PPA or to revenues received by any market participant arising directly from generation, a DR participant could utilize Resolute's proposed amendment in ways that would provide no additional benefit to Ontario's ratepayers. For example, a DR participant's facility with a behind-the-meter generator could receive treatment as a gross load for the purposes of calculating its DR capacity contributions while inconsistently being treated as a net load for the purposes of calculating their global adjustment charge (resulting in a lower charge than they would receive if they were treated consistently throughout the IAM).

- 2. From a consumers point of view, I would prefer that the IESO use the lowest cost option, demand response / incremental capacity, to keep the system stable. Do we have any insight as to what option is best for the consumer?**

Resolute's proposed amendment would result in a dramatically less cost effective demand response product for Ontario ratepayers. By reintroducing the inefficient DR3/CBDR method for calculating DR capacity, DR participants would receive availability payments for MW they would not be required to deliver to the ICG on activation. A hypothetical facility receiving

payment for a 50MW capacity obligation may, for example, only be expected to provide 30 MW to the ICG on activation.

3. **If some compromise were to be provided to accommodate Resolute, are we certain that others in a similar circumstance will not want the same treatment? Are we obligated to treat all market participants in the same manner?**

The IESO is committed to treating equally all market participants who share the same circumstances. If Resolute's proposal were accepted, it would result in other market participants in the same circumstances being treated in the same manner, increasing the risk to reliability, and resulting in significant unwarranted costs to ratepayers.

4. **The IESO presentation (page 14) acknowledged that the Resolute configuration could potentially benefit ratepayers. Is the IESO able to quantify this benefit even in general terms? Specifically, does the combination of 30 MW of reduced demand and 25 MW of injection provide a similar benefit to 55 MW of demand reduction?**

The IESO does believe that injections can be beneficial to a market based Capacity Product. However, as stated above in question C1, from an operations point of view, load management and generation flowing into the ICG are not operationally equivalent.

Moreover, DR capacity is realized through load reduction. DR resources, or DR combined with generation resources, will continue to participate in the TCA and ICA as distinct from generation only resources. However, redefining DR capacity as a combination of load reduction and generation injection to the ICG requires careful examination in order to avoid unintended consequences to reliability and to ratepayers cost.

On the IESO's current understanding of Resolute's proposed operational model for its own DR resource, they are not, in any case, proposing to achieve their capacity obligation through direct injections to the ICG.

F. Questions related to the Transitional Capacity Auction

1. **I assume that the new Transitional Capacity Auction (TCA) will be of no immediate value to Resolute's issues for the following reason:
The TCA Phase 1 is only looking at dispatchable Generators**

Phase 1 of the TCA program is focused on enabling generation from non-contracted, non-regulated dispatchable generators that can provide capacity to the ICG.

2. **Will the treatment of behind-the-meter injection resources be dealt with in the upcoming Transition Capacity Auction (Phase 1 or Phase 2) consultation?**

We will seek to enable existing market resources to participate in a future TCA. Phase 1 of the TCA will only enable dispatchable generators. As such, market participants with non-contracted, non-regulated behind-the-meter generators could participate in Phase 1 by separately registering their generator as a standalone dispatchable generator (not behind the meter self-scheduling generator), enabling them to participate as an HDR (load) and a dispatchable generator for all IESO programs.

G. Questions on Resolute's facility / operations:

- 1. Could the IESO provide a detailed definition of the two categories of Demand Auction participants identified in section 6.2.1 of Market Manual 12.0, and used in section 6.3.2 Measurement Data Submissions, and reflect on whether these are sufficiently well defined, including appropriate Revenue Meter channels references, to unambiguously capture the unique configuration of Resolute's Thunder Bay facility if the additional Revenue Meter (non-dispatchable generator) is included in the measurement and calculation.**

An hourly demand response resource (HDR) may consist of either physical or virtual contributors. Physical contributors are non-dispatchable load facilities which are IESO revenue metered and virtual contributors are distribution-connected load facilities which are LDC revenue metered.

Market Participants that withdraw and inject energy from and into the ICG participate in the physical market as both a load facility (as measured by channel 1 of the IESO revenue meter) and a generation facility (as measured by channel 3 of the IESO revenue meter). HDR resources can only be associated with non-dispatchable load facilities and by virtue of this association, only the withdrawal from the ICG (channel 1 of the IESO revenue meter) is used to measure the DR capacity.

To ensure that DR capacity for virtual contributors is measured in the same manner, section 6.3.2 of Market Manual 12 describes how meter data from the LDC meter must be processed and submitted to the IESO by the demand response market participant (DRMP). This detail is needed to ensure that injections into the distribution grid from virtual contributors are not used to measure the DR capacity.

The IESO revenue meter associated with Resolute's non-dispatchable load facility measures the electricity it consumes from the ICG and is used to settle all market transactions including their DR capacity obligation.

In the IESO's opinion, all of the above is sufficiently well defined.

2. **Confirm that the energy in question that is being injected into the IESO grid under the DR Program is from the generation facilities that received an award from the Ontario Centres of Excellence (OCE) TargetGHG Industrial Demonstration Program? (for **Resolute**)**
3. **Confirm that no IESO or OPA funding has been or is being provided or awarded to the generation facility in question?**

Resolute is a party to a CHP III contract with the IESO.

4. **Does acceptance into the IESO DR Program obligate the IESO to procure services from Resolute?**

No, acceptance into the DRA program as a Demand Response Auction Participant (DRAP) only allows the participant to participate in the auction. Only DRAPs that clear the DR auction receive a DR capacity obligation (and they become Demand Response Market Participant).

5. **Can the IESO identify in any program, documents or contracts that Resolute is restricted from injecting energy into the IESO controlled grid under the DR Program in question?**

Resolute is not restricted from injecting energy into the ICG. However, as per the design of the DRA program, generation injections would not count towards their DR capacity obligation.

6. **Does the IESO hold the authority to curtail or reject Resolute's energy injections into the IESO grid? If so under what conditions?**

The IESO holds the authority to direct any market participant including non-dispatchable load or self-scheduling generation to take, or to refrain from taking, any action as necessary to maintain reliability of the IESO-controlled grid (as per Market Rule Chapter 5 Section 5.1.2.6).

7. **Was Resolute aware that the IESO DR related program had changed a few years back? I assume as part of their Market Participant Agreement they should have been? It appears that the DR program went from a contract based mechanism to an auction. Presumably, this means that it went from a "one-on-one" negotiated contract mechanism to a market based auction mechanism with its own Market Rules. (**Resolute**)**

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Jason Grbavac

From: Jason Grbavac
Sent: April 02, 2019 5:44 PM
To: bob@bieler.ca; david.brown@oeb.ca; rcollins@sinopa.ca; Griffiths Sarah (EnerNOC); rglake@nexicom.net; phil.lasek@shell.com; jsaunders@burlingtonhydro.com; sushil.samant@northlandpower.ca; julien.wu@brookfieldrenewable.com; Jessica Savage; vlad.urukov@opg.com; Dave Forsyth; Michael Lyle
Cc: Reena Goyal; Robert Doyle
Subject: FW: MR-00437 Technical Panel Questions Update
Attachments: Update to Enel X Question #1.pdf

Technical Panel,

Please see the following email and attachment, which we received from Resolute this afternoon and were asked to forward to the panel by today for your information. Although the IESO is still reviewing the attached document, please note that it does not agree with Resolute's characterization of IESO staff's conduct nor some of the correspondence referred to therein. The IESO will address any questions you may have about the attached correspondence between Resolute and IESO at the Technical Panel meeting on April 16.

Let me know if you have any questions.

Thanks - Jason

Jason Grbavac | Senior Advisor, Stakeholder Engagement - Policy, Engagement, Innovation
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From: Vegh, George [<mailto:gvegh@mccarthy.ca>]
Sent: April 02, 2019 1:58 PM
To: Jason Grbavac
Subject: MR-00437 Technical Panel Questions Update

CAUTION: This email originated from outside of the organization. Exercise caution when clicking on links or opening attachments even if you recognize the sender.

Jason, in response to Enel X Question 1, Resolute provided e-mail correspondence with IESO staff up to that date respecting Resolute's revised proposed amendment to the Market Rule Submission. An update of that correspondence is attached. Please provide it to the Technical Panel.



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MR00-437

Resolute Responses to Technical Panel Questions

Resolute is pleased to provide responses to the Technical Panel's questions. Resolute benefitted from the Technical Panel's discussion on March 5. As a result of that discussion, Resolute amended its Market Rule submission (the "Amended Submission"). A copy of the amended submission is attached.

Resolute's proposed amendment takes into account staff's concerns respecting the unintended consequences of Resolute's proposed rule as initially drafted. Resolute's goal is to maintain the status quo under the existing rules in a manner that is consistent with the IESO's representations that the purpose of the DRA was **"to facilitate participation by current demand response providers, potential new participants and new technologies."**¹

In order to ensure that the proposed amendments do not result in unintended consequences, Resolute's amended submission revises its proposed amendment to ensure that the amendment does not result in changes to Capacity and Eligibility Requirements that have not been considered by the Technical Panel and approved under the DR2, DR3 and CBDR Programs. The text of the proposed amendment is set out below (changes to current rules underlined):

Chapter 7, Section 18.2.1.2:

18.2.1 No person may participate in a demand response auction nor receive a demand response capacity obligation unless that person has:

18.2.1.2 submitted and has been approved by the IESO, using forms and procedures as may be established by the IESO in the applicable market manual, the amount of demand response capacity that the demand response auction participant is willing to provide, provided that nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3 or CBDR programs;

Chapter 7, Section 19.2.1.1:

19.2.1 A demand response market participant is eligible to participate as an hourly demand response resource provided that the demand response market participant:

19.2.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual, provided that nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3 or CBDR programs;

The responses to the questions set out below take the amendment submission into account.

¹ IESO, Market Rule Submission, Demand Response Auctions – Participant Authorization & Facility Registration, Version 5, p. 2 (MR-00416-R00), undated.; see also:

- Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 2;
- Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 3;
- Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 7; and
- Demand Response Auctions – Overview, Presentation to Technical Panel, June 2 20, 2015.p. 8;

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Northland Power (Sushil Samant)

1. I assume that the new Transitional Capacity Auction (TCA) will be of no immediate value to Resolute's issues for the following reason:
 - a. The TCA Phase 1 is only looking at dispatchable Generators.

Resolute Response:

The assumption that the proposed TCA does not provide a means to address this issue is correct. The proposed TCA is not relevant to Resolute's ability to provide demand response under the current market rules and its predecessor programs. Resolute has been providing the IESO with demand response under its current metering and physical configuration since 2013.

Given the lack of any detail on the proposed TCA, It is speculative to consider what changes may be made to the current Market Rules to facilitate the TCA and how, if at all, that may impact Resolute, or any other market participant for that matter.

2. Was it a flaw in the IESO process to qualify a resource in the DR Auction by the MW quantity it submitted in its registration? To clarify this question: It seems there is no requirement to prove the DR MW qualification until an IESO DR Activation Test is undertaken. This test was not held in the first year of the DR Auction but it was held in the following year. As a result, had a test been required in an earlier year, this item would have come to light sooner. Conversely, if a test had never been undertaken, this item may never have been noticed.

Resolute Response:

Resolute qualifies as a resource under the current Market Rules and met its activation requirements under the Market Rules. Resolute found the qualification process was detailed and did not leave anything out. Because of challenges with the IESO's on-line registration, Resolute provided the IESO with the data required, and it was the IESO that completed the registration based on data provided by Resolute.

3. Was Resolute aware that the IESO DR related program had changed a few years back? I assume as part of their Market Participant Agreement they should have been? It appears that the DR program went from a contract based mechanism to an auction. Presumably, this means that it went from a "one-on-one" negotiated contract mechanism to a market based auction mechanism with its own Market Rules.

Resolute Response:

Resolute was fully aware that the programs were different in that the previous Demand Response programs were moving from a contract based type to an open auction. Resolute worked extensively with the IESO registration group during the transition to ensure all required data and reporting obligations were fulfilled. Resolute spoke to the IESO repeatedly about using the existing metering configuration in the new program. On November 5, 2015 Resolute received an email from Jason Grbavac, IESO Account Manager, indicating the IESO would confirm the metering configuration by the following Monday (a copy of that email is attached). On November 17, 2015 Resolute received a

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call from Mr. Grbavac confirming that the IESO would allow the same metering configuration to be used in the auction (a copy of an internal Resolute email confirming that call is attached).

4. An issue was raised with respect to submitting an Exemption Application by Resolute on this issue. I did not follow the IESO response during the TP meeting - what was the reason the IESO was not in favour of this?

Resolute Response:

Resolute may respond to the IESO's position on this after having the chance to review it.

From Resolute's perspective, an Exemption Application is not the appropriate remedy in this case. Resolute qualifies under the current Market Rules and therefore does not require an exemption from any Market Rules.

5. Could the IESO clarify why it doesn't support Resolute's Market Rule Amendment submission? Is it because in effect it i) results in a design change or ii) it would result in unintended consequences or iii) both?

Resolute Response:

Resolute may respond to the IESO's position on this after having the chance to review it.

6. It appears that the IESO had no pre-auction qualification test for loads. Loads only had to write down on a Registration Application how much Demand Response they could achieve. Testing only occurred after the fact. Please confirm.

Resolute Response:

This is correct. Note that the maximum capacity obligation was achieved during previous activations/testing in the prior demand response programs.

AMPCO (David Forsyth)

1. What Market Rule or Manual did Resolute violate that caused the reduction of 25-30 MW of DR capacity that was registered in the OPA programs?

Resolute Response:

Resolute did not violate any Market Rule or Market Manual.

Resolute may respond to the IESO's position on this after having the chance to review it.

2. When Resolute transitioned from Contracted DR (CBDR/DR3) into the DRA, did they make any changes to their configuration that triggered the reduction in DR MW's?

Resolute Response

No changes were made to the configuration.

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3. During the registration process for the DRA, did Resolute provide information in the optional field that asked how the MW's would be delivered? If so, please provide this information if it isn't confidential.

Resolute Response

Yes Resolute provided the following statement in completing its initial Load Reduction Plan field "Load reduction plan consists of shutting down major pieces of equipment to obtain level of required contracted capacity obligation."

Enel X (Sarah Griffiths)

1. **Are the IESO and Resolute working on a market rule amendment that would ensure that there are no unintended consequences but that would accept the Resolute configuration that was approved in the past? If yes, when will a revised Market Rule Amendment be shared in advance of the April Technical Panel meeting? If no, why not?**

Resolute Response:

Resolute provided the IESO with a proposed change to the Market Rule on March 8, 2019 and requested its comments on same for March 13. The IESO acknowledged receipt of the email on March 12, but did not provide a substantive response. On March 22, Resolute advised that it was still waiting for a substantive response. IESO staff advised that it would only provide a response in a meeting, which it proposed to hold on March 28 – which is less than two full business days before it was expecting Resolute to respond to the Technical Panel's questions. The correspondence respecting Resolute's attempt to resolve the text of the proposed amendment is attached.

The changes proposed by Resolute reflect the changes proposed in the revised amendment submission (attached).

2. **Will the treatment of behind-the-meter injection resources be dealt with in the upcoming Transition Capacity Auction (Phase 1 or Phase 2) consultation?**

Resolute Response:

There is very little detail on the components of the TCA so the issues to be included are not clear. Resolute expects that it will participate in the TCA consultations and address issues that may impact it.

Rob Lake (Representing Residential Customers)

1. From an operations point of view, do we see load management/demand response and generation flowing into the system as equivalent? If not, then what are the operators concerns?

Resolute Response:

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It is important to point out that Resolute's configuration does not now and did not ever rely on generation flowing into the system to meet a demand response obligations. All demand response obligations have been met by reducing demand, i.e., curtailing load.

Resolute's generator provides electricity to the grid in accordance with a PPA with the IESO. When the load facility is operating, it consumes electricity generated by the generator. When the load facility is not operating, Resolute injects its excess electricity to the grid. This injection does not attract demand response payments.

Resolute may respond to the IESO's position on this after having the chance to review it.

2. The Market Manual, part 7.6, System Operations, (Public), page 12, defines demand management as "Measures initiated by the IESO.... to influence the amount and timing of customer electricity demand." In my opinion this does not include generating and providing power/energy to the grid. Is the definition wrong or being used in a different manner now? The definition has been supplied by the IESO.

Resolute Response:

It is important to point out that Resolute's configuration does not now and did not ever rely on generating and providing power/energy to the grid to meet a demand response obligations. All demand response obligations have been met by reducing demand, i.e., curtailing load.

Resolute may respond to the IESO's position on this after having the chance to review it.

3. If some compromise were to be provided to accommodate Resolute, are we certain that others in a similar circumstance will not want the same treatment? Are we obligated to treat all market participants in the same manner?

Resolute Response

Resolute has drafted the proposed rule to ensure that the market rule does not disqualify demand response metering configurations previously approved under the DR2, DR3 or CBDR programs. As a result, there is no risk that new configurations will create new claims for entitlements for loads with different configurations.

4. If we accept Resolute's position, going forward should we not consider demand response and incremental capacity as the same thing?

Resolute Response

It is important to point out that Resolute's configuration does not now and did not ever rely on generation flowing into the system to meet a demand response obligations. All demand response obligations have been met by reducing demand, i.e., by curtailing load. As a result, the issue of how to treat incremental capacity does not arise.

5. From a consumers point of view, I would prefer that the IESO use the lowest cost option, demand response / incremental capacity, to keep the system stable. Do we have any insight as to what option is best for the consumer?

Resolute Response:

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Resolute's participation in the demand response program was through an auction. So the price of its demand response that was offered and accepted by the IESO was, by definition, lower than alternative offers that did not qualify. The IESO has generally taken the view that lower costs are driven by the number of participants in the demand response auction, so disqualifying Resolute's participation means that its foregone demand response would be replaced by a higher priced demand response offer.

OPG (Vlad Urukov)

1. Could the IESO provide a detailed definition of the two categories of Demand Auction participants identified in section 6.2.1 of Market Manual 12.0, and used in section 6.3.2 Measurement Data Submissions, and reflect on whether these are sufficiently well defined, including appropriate Revenue Meter channels references, to unambiguously capture the unique configuration of Resolute's Thunder Bay facility if the additional Revenue Meter (non-dispatchable generator) is included in the measurement and calculation.

Resolute Response

Resolute may respond to the IESO's position on this after having the chance to review it.

In any event, Resolute's point is that the current Market Rules permit the configuration that Resolute has been using since 2013. Staff's change in position was not based on a Market Rule change (see the comparison of Market Rule provisions under the CBDR and the DRA at Appendix A to the Market Rule Submission (attached)).

Staff drafts and revises market manuals without the input and approval of either the Technical Panel or the IESO Board. Market manuals cannot detract from the rights and obligations of market participants under the Market Rules.

Union Gas (David Dent)

1. Please provide the documentation showing Resolute's proposal for their current demand response configuration.

Resolute Response:

As noted in response to Northland Power Questions 2 and 3, because of challenges with the IESO's on-line registration, Resolute provided the IESO with the data required, and it was the IESO that completed the registration based on data provided by Resolute. The information that the IESO relied upon was populated in its on-line process and not a documentary submission. Because Resolute provided the IESO with the data required, and it was the IESO that completed the registration based on data provided by Resolute.

Resolute worked extensively with the IESO registration group during the transition to ensure all required data and reporting obligations were fulfilled. Resolute spoke to the IESO repeatedly about using the existing metering configuration was going in the new program. On November 5, 2015 Resolute received an email from Jason Grbavac, IESO Account Manager, indicating the IESO would confirm the metering configuration by the following Monday (a copy of that email is attached). On November 17, 2015 Resolute received a call from Mr. Grbavac confirming that the IESO would allow the same

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metering configuration to be used in the auction (a copy of an internal Resolute email confirming that call is attached).

2. Please provide the documentation showing that the IESO (or OPA) accepted Resolute's demand response configuration.

Resolute Response:

See attached Registration Approval Notification. See also the response to Northland Question #3.

3. The IESO presentation (page 14) acknowledged that the Resolute configuration could potentially benefit ratepayers. Is the IESO able to quantify this benefit even in general terms? Specifically, does the combination of 30 MW of reduced demand and 25 MW of injection provide a similar benefit to 55 MW of demand reduction?

Resolute Response:

Resolute may respond to the IESO's position on this after having the chance to review it.

4. It is my understanding from the discussion last week that Resolute is compensated by two revenue streams: a power purchase agreement for the energy and a demand response commitment. In light of the Resolute configuration (and without discussion the specific contractual terms) does the 2 streams of revenue generate over compensation? If not, why not?

Resolute Response:

It is important to point out that Resolute's configuration does not now and did not ever rely on generation flowing into the system to meet a demand response obligations. All demand response obligations have been met by reducing consumption, i.e., by curtailing load. Resolute is entitled to demand response payments for reducing demand in accordance with the terms of the Market Rules. This is the case with all demand response market participants.

Resolute's generator provides electricity to the grid in accordance with a PPA with the IESO. When the load facility is operating, it consumes electricity generated by the generator. When the load facility is not operating, Resolute injects its excess electricity to the grid. It receives compensation for the power it produces. This is the case with all generation market participants.

There is no over-compensation in that Resolute provides two different services to the IESO and each is paid for in accordance with separate financial and physical obligations. Presumably, all demand response market participants have other sources of revenue in addition to demand response payments.

Resolute may respond to the IESO's position on this after having the chance to review it

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Sinopa Energy (Ron Collins)

1. **Confirm that the energy in question that is being injected into the IESO grid under the DR Program is from the generation facilities that received an award from the Ontario Centres of Excellence (OCE) TargetGHG Industrial Demonstration Program?**

Resolute Response:

It is important to point out that Resolute's configuration does not now and did not ever rely on energy being injected to meet a demand response obligation under the DR Program. All demand response obligations have been met by reducing demand, i.e., curtailing load.

Resolute's generator provides electricity to the grid in accordance with a PPA with the IESO. When the load facility is operating, it consumes electricity generated by the generator. When the load facility is not operating, Resolute injects its excess electricity to the grid.

Resolute may respond to the IESO's position on this after having the chance to review it.

The OCE award was granted to the Resolute facility, not the generation unit in particular. A copy of announcements of the award is attached.

2. **Confirm that no IESO or OPA funding has been or is being provided or awarded to the generation facility in question?**

Resolute Response:

Like every virtually every other unregulated generator providing power to the IESO, Resolute does so under a contract with the IESO that contains rights and obligations, including with respect to the provision of power. Resolute is paid for the services it provides to the IESO under its PPA.

Electricity generated and provided to the IESO has nothing to do with Resolute's demand response – which involves reducing load, not providing generation.

3. **From where does the IESO draw its authority to change requirements in a DR Program and is authority absolute?**

Resolute Response:

Resolute does not believe that IESO staff has any authority to change qualification requirements in the Market Rules.

Resolute may respond to the IESO's position on this after having the chance to review it.

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- 4. Does acceptance into the IESO DR Program obligate the IESO to procure services from Resolute?**

Resolute Response:

Resolute's entitlement to compensation is based on its eligibility to qualify capacity under the Demand Response Program and its meeting activation requirements. If Resolute meets these entitlements, the IESO does not have the discretion to unilaterally withhold payment.

- 5. Can the IESO identify in any program, documents or contracts that Resolute is restricted from injecting energy into the IESO controlled grid under the DR Program in question?**

Resolute Response

It is important to point out that Resolute's configuration does not now and did not ever rely on energy being injected to meet a demand response obligation under the DR Program. All demand response obligations have been met by reducing consumption, i.e. by curtailing load.

Resolute's generator provides electricity to the grid in accordance with a PPA with the IESO. When the load facility is operating, it consumes electricity generated by the generator. When the load facility is not operating, Resolute injects its excess electricity to the grid.

Resolute may respond to the IESO's position on this after having the chance to review it.

- 6. Does the IESO hold the authority to curtail or reject Resolute's energy injections into the IESO grid? If so under what conditions?**

Resolute may respond to the IESO's position on this after having the chance to review it.

Introduction and Enel X Question #1



Revised Market Rule Amendment Submission

This form is used to request an amendment to the *Market Rules*. Please complete the first four parts of this form and submit the completed form by email to the following:

Email Address: Rule.Amendments@ieso.ca

Attention: Market Rules Group

Subject: Market Rule Amendment Submission

All information submitted in this process will be used by the *IESO* solely in support of its obligations under the *Electricity Act, 1998*, the *Ontario Energy Board Act, 1998*, the *Market Rules* and associated policies, standards and procedures and its licence. All submitted information will be assigned the *confidentiality classification* of "Public" upon receipt. You should be aware that the *IESO* will *publish this amendment submission* if the *Technical Panel* determines it warrants consideration and may invite public comment.

Terms and acronyms used in this Form that are italicized have the meanings ascribed thereto in Chapter 11 of the *Market Rules*.

PART 1 – SUBMITTER'S INFORMATION

Please enter contact information in full.

Name: Jacques Vachon, Senior VP, Corporate Affairs and Chief Legal Officer, Resolute FP Canada Inc.

(if applicable) *Market Participant /*
Metering Service Provider No.¹: 125299

Market Participant Class:
Demand Response Market Participant

Telephone: 514-394-2296

E-mail Address: jacques.vachon@resolutefp.com

PART 2 – MARKET RULE AMENDMENT SUBMISSION INFORMATION

Subject: Request for review of market rule pursuant to Chapter 3, section 4.2.4

Title: Demand Response Market Rule unjustly discriminates against a Market Participant / a class of Market Participants

Nature of Request (please indicate with x)

☒ Alteration

☐ Deletion

☐ Addition

¹ This number is a maximum of 12 characters and does not include any spaces or underscore.

PART 1 – SUBMITTER’S INFORMATION

Chapter: <u>Market Rule</u>	Appendix: _____	Sections: <u>18.2 and 19.2.1.1</u>
Chapter <u>7</u>		
Sub-sections proposed for amending: _____		

PART 3 – DESCRIPTION OF THE ISSUE

Provide a brief description of the issue and reason for the proposed amendment. If possible, provide a qualitative and quantitative assessment of the impacts of the issue on you and the *IESO-administered markets*. Include the Chapter and Section number of the relevant *market rules*.

BACKGROUND:

Resolute FP Canada Inc. (“Resolute”) is filing this request for an amendment to Chapter 7, sections 18.2 and 19.2.1.1 of the Market Rules (the “Market Rules”) pursuant to Chapter 3, section 4.2.4 of the Market Rules and ss. 35(1) and 35(4) of the Electricity Act, 1998 (“Electricity Act”).

The purpose of this amendment is to restore the original intention of the Market Rules with respect to the determination of a demand response market participant’s demand response capacity (Chapter 7, s. 18.2) and eligibility to participate as an hourly demand response resource (Chapter 7, s. 19.2.1.1) (collectively, the “Capacity and Eligibility Requirements”).

The original intention of the Capacity and Eligibility Requirements, as expressed in presentations to the Technical Panel and in the Market Rule Amendment proposals in respect of the Market Rules, included transitioning Capacity and Eligibility Requirements under the DR2, DR3 and CBDR programs (as defined below) to the DRA.

In order to ensure that the proposed amendments do not result in unanticipated consequences and do not constitute a design change to the DRA, Resolute has revised its proposed amendment to ensure that the amendment does not result in changes to Capacity and Eligibility Requirements that have not already been considered by the Technical Panel and approved under the DR2, DR3 and CBDR Programs. To achieve this, the revision simply confirms that “nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3, or CBDR programs.”

The full text of the proposed amendment is in Part 4.

BRIEF DESCRIPTION OF THE ISSUE:

Context

As a Demand Response Market Participant (“DRMP”), Resolute has been providing DR to the IESO under the Demand Response 2 (“DR2”) and Demand Response 3 (“DR3”) programs created by the IESO’s predecessor, the Ontario Power Authority, as well as the Capacity Based Demand Response program (“CBDR”) and the current DR auction (“DRA”) (collectively, DR2, DR3, CBDR and DRA will be referred to as the “Demand Response Programs”).

For the purpose of its participation in the Demand Response Programs, Resolute registered its Thunder

PART 3 – DESCRIPTION OF THE ISSUE

Bay news-mill manufacturing facility as the Demand Response Program resource (the “**Mill**”). To do this, Resolute made use of two revenue-grade electricity meters: one that measures the consumption of the Mill from IESO-controlled grid (the “**IESO Grid Meter**”), and the other that measures the consumption of the Mill from its cogeneration facility (the “**Mill Revenue Meter**”).

The sum of the data measurements from these two meters accurately identify the total load of the Mill and that Facility’s available capacity for the Demand Response Programs. The total load for the Mill was determined, and continues to be, between 70 – 110 megawatts, depending on manufacturing operations.

The IESO accepted this measurement as accurately reflecting the total available capacity of Resolute’s Mill and approved Resolute’s participation in DR2, DR3, CBDR and the DRA.

Resolute’s Registration For The 2016/2017 Auction

In registering for the DRA, and with the IESO’s knowledge, guidance, and participation, Resolute understood that the total load of the Mill would be measured using the same aggregated meter data, measured by both the IESO Grid Meter and the Mill Revenue Meter, as was previously relied on to determine Resolute’s total available capacity for the DR2, DR3 and CBDR Programs.

Resolute was successful in both the 2016 and 2017 DRAs, and the IESO awarded it a maximum demand response capacity obligation of between 46 and 51 megawatts under these programs, reflective of its actual total load.

REASON FOR THE REQUESTED AMENDMENT:

In supporting the Market Rules in 2015, the Technical Panel was advised that the purpose of the Market Rules was to improve the “**integration of existing DR contracts** in the IESO-administered energy market and dispatch proces”.¹

The first steps involved in achieving this goal were to “implement market rules to **transition DR3 contractual terms** for a market based structure (capacity-based demand response)” and to “implement a DR Auction mechanism “**to replace OPA DR contracts**”². Similarly, the Technical Panel was advised that the target MW requirement for the DR auction “was based on **the quantity of DR expiring from CBDR to maintain 500 MW target**.”³

The Participation and authorization amendment to the Market Rules were described as facilitating the continuance of currently approved facilities and facilitating new DR participation:⁴

“In order to attract the broadest range of potential DR providers, **including current demand response providers** as well as new entrants and new technologies, we have sought to reduce the requirements for participation in the auction.”

Similarly, the Market Rule Amendment Submission in respect of the Market Rules specifically stated that, “In developing the demand response auction, **the approach has been to facilitate participation by current demand response providers**, potential new participants and new technologies.”⁵

¹ Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 2.

² Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 3.

³ Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 7.

⁴ Demand Response Auctions – Overview, Presentation to Technical Panel, June 2 20, 2015.p. 8.

PART 3 – DESCRIPTION OF THE ISSUE

The Market Rules were drafted in a way to facilitate these objectives. Specifically, the Market Rules made no material changes or restrictions to the Capacity and Eligibility Requirements that are set out in the Market Rules respecting the IESO's CBDR Programs.⁶

Despite the approval of the continuation of the existing Capacity and Eligibility Requirements, after the Market Rules were passed, IESO staff took the position that the baseline measurement for Resolute's participation in the DRA will no longer reflect the CBDR Capacity and Eligibility Requirements that are set out in the market rules. Instead, staff's position was that the Capacity and Eligibility Requirements would only take into account measurement data from the IESO Grid Meter. As a result, staff advised that it will not accept or refer to measurement data from the Mill Revenue Meter.

The consequence of IESO Staff's position is that the electricity measured by the Mill Revenue Meter meter will no longer take into account in measuring the Mill's baseline consumption. Consequently, the mill will, for the first time, and contrary to the IESO's approved participation in the DR2, DR3⁷ and CBDR Programs, artificially be deemed to only consume electricity from the grid and Resolute will not be able to have its demand reduction measured against the demand served by its self-generation (and measured by the Mill Revenue Meter).

IESO Staff has been unable to identify a Market Rule that supports this position and, and in particular, could not identify how the Market Rules that transitioned the CBDR program to the DRA supported this change.

In discussing Resolute's amendments to the Market Rules with the Technical Panel, Staff raised two concerns. First, that scenarios that involve variations of Resolute's approved Capacity and Eligibility Requirements "could potentially yield unintended consequences if not thoroughly assessed"; and second, that Resolute's proposal is a "design change"⁸

Resolute understands the concerns respecting unintended consequences and has therefore revised its proposed amendment to ensure that it does not result in changes to Capacity and Eligibility Requirements that have not been considered by the Technical Panel and approved under the DR2, DR3 and CBDR Programs.

As to the "design change" point, it does not seem plausible that a configuration that has been in place and unchanged since 2013 has somehow become a design change. In any event, the revised amendment set out in Part 4 makes it clear that the Market Rule does not result in changes to metering configurations previously approved under the DR2, DR3 or CBDR programs.

⁵ Demand Response Auctions – Participant Authorization & Facility Registration, Version 5, p. 2 (MR-00416-R00), undated.

⁶ See Market Rules, Chapter 7, s. 17.2.1. For a comparison of the Capacity and Eligibility Requirements under the CBDR and the DRA, see Appendix A.

⁷ The approvals for DR2 and DR3 were made by the IESO's predecessor organization, the Ontario Power Authority ("OPA"). The approvals for the CBDR were made by the post-merger IESO. Upon the amalgamation of the two organizations, the obligations, etc. of the OPA became obligations of the IESO: See Electricity Act, ss. 25.8(1).3.

⁸ IESO Response to Proposed Market Rule Amendment submitted by Resolute, MR-00437: Demand Response – Registration and Metering Requirement, Technical Panel, March 5, 2019.

PART 3 – DESCRIPTION OF THE ISSUE

The proposed changes to the Market Rules are set out in Part 4, below (proposed text to market rules is underlined).

If the IESO does not correct this outcome, then the current Market Rules are inconsistent with the purposes of the *Electricity Act* and discriminatory, and should be overturned by the Ontario Energy Board.

PART 4 – PROPOSAL (BY SUBMITTER)

Provide your proposed amendment. If possible, provide suggested wording of proposed amendment.

As Resolute believes that the current Market Rules are clear, no specific amendments are required. However, under the circumstances, Resolute believe that the following amendments will restore the original intention of the Market Rules:

Chapter 7, Section 18.2.1.2:

18.2.1 No person may participate in a demand response auction nor receive a demand response capacity obligation unless that person has:

18.2.1.2 submitted and has been approved by the IESO, using forms and procedures as may be established by the IESO in the applicable market manual, the amount of demand response capacity that the demand response auction participant is willing to provide, provided that nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3 or CBDR programs;

Chapter 7, Section 19.2.1.1:

19.2.1 A demand response market participant is eligible to participate as an hourly demand response resource provided that the demand response market participant:

19.2.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual, provided that nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3 or CBDR programs;

PART 5 – FOR IESO USE ONLY

Technical Panel Decision on Rule Amendment Submission: _____

MR Number: _____

Date Submitted to Technical Panel: _____

Accepted by Technical Panel as: (please indicate with x)

Date: _____

☐ General

☐ Urgent

☐ Minor

PART 5 – FOR IESO USE ONLY

Criteria for Acceptance: _____

Priority: _____

Criteria for Assigning Priority: _____

Not Accepted (please indicate with x): ☐

Technical Panel Minutes Reference: _____

Technical Panel Comments: _____

Northland Question #3

From: "Grbavac, Jason" <Jason.Grbavac@ieso.ca>
To: "Cara Degelman (Resolute FP)" <cara.degelman@resolutefp.com>,
Cc: "tony.ruberto@resolutefp.com" <tony.ruberto@resolutefp.com>, "peter.giardetti@resolutefp.com" <peter.giardetti@resolutefp.com>,
"alain.bourdages@resolutefp.com" <alain.bourdages@resolutefp.com>
Date: 11/05/2015 04:30 PM
Subject: RE: Info on Ref and Max price

Quick Update - I need more time to have the right people review and confirm the metering configuration question, I hope to be in touch tomorrow or Monday.

Jason Grbavac | Account Manager, Customer & Stakeholder Relations

Independent Electricity System Operator (IESO) | T: (905) 855-6155 | C: (905) 466-6154
Station A, Box 4474, Toronto, ON M5W 4E5

Web: www.ieso.ca | Twitter: [IESO Tweets](#) | LinkedIn: [IESO](#)

Conservation: www.saveONenergy.ca | Twitter: [saveONenergyOnt](#) | LinkedIn: [saveONenergy](#)



DR Auction - Metering
Cara Degelman to: Tony Ruberto
Cc: Alain Bourdages

11/17/2015 03:02 PM

Jason gave me a quick call to let us know metering is okay with using the existing CBDR metering setup for the new DR Auction. Scheduling the resource in real time will be addressed in training being offered in Jan/Feb. An official email to follow.

Cara

Cara Degelman | Senior Analyst - Energy
Resolute Forest Products | T: (514) 394-2194 | C: (514) 604-3687
111 Duke Street, Montreal, QC H3C 2M1
Cara.Degelman@ResoluteFP.com

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Enel X Question #1

Vegh, George

From: Robert Doyle <robert.doyle@ieso.ca>
Sent: Monday, March 25, 2019 11:13 AM
To: Vegh, George
Cc: Thomas, Michelle
Subject: RE: MR-00437 Follow Up

Hi George –

Thanks for your response. The intent of the proposed meeting was to discuss that substantive response. I can work with Michelle to set up a time. We can schedule a conference call as opposed to a face-to-face meeting, if that works better, schedule-wise.

Thanks – Rob

From: Vegh, George <gvegh@mccarthy.ca>
Sent: March 22, 2019 2:21 PM
To: Robert Doyle <robert.doyle@ieso.ca>
Cc: Thomas, Michelle <MTHOMAS@MCCARTHY.CA>
Subject: FW: MR-00437 Follow Up

CAUTION: This email originated from outside of the organization. Exercise caution when clicking on links or opening attachments even if you recognize the sender.

Hello Bob. Unfortunately the afternoon of March 28th won't work. Michelle can propose alternative times. In any event, at the request of the Technical Panel, on March 8, Resolute provided a proposal to the IESO with respect to a revised rule and I was hoping to get a substantive response to that proposal.

From: Thomas, Michelle
Sent: Friday, March 22, 2019 2:08 PM
To: Vegh, George
Subject: FW: MR-00437 Follow Up

Please see attached.

From: Robert Doyle [mailto:robert.doyle@ieso.ca]
Sent: Wednesday, March 20, 2019 8:31 AM
To: Thomas, Michelle
Cc: Parla, Julie K.
Subject: RE: MR-00437 Follow Up

Good morning Michelle –

Wanted to connect back and ask if the afternoon of March 28 could work for a follow-up discussion on this issue? Apologies for the limited window, I'm just trying to accommodate a couple of vacation schedules on our end. If that window doesn't work, please let me know if you have some alternate windows.

Thanks and let me know – Rob

From: Robert Doyle
Sent: March 12, 2019 12:54 PM
To: 'MTHOMAS@MCCARTHY.CA' <MTHOMAS@MCCARTHY.CA>
Cc: Tam Wagner <tam.wagner@ieso.ca>; Parla, Julie K. <JPARLA@MCCARTHY.CA>
Subject: RE: MR-00437 Follow Up

Hi Michelle –

By way of introduction, I work in the market rules group at the IESO and will be taking over from Jo Chung as the IESO point of contact for the Resolute market rule amendment submission. I wanted to acknowledge receipt of this email and say that we will connect back with you.

Thanks – Rob

Robert Doyle
Supervisor, Market Rules, IESO
905-855-6402

From: Thomas, Michelle [<mailto:MTHOMAS@MCCARTHY.CA>] **On Behalf Of** Vegh, George
Sent: March 08, 2019 3:52 PM
To: Tam Wagner
Cc: Parla, Julie K.
Subject: MR-00437 Follow Up

CAUTION: This email originated from outside of the organization. Exercise caution when clicking on links or opening attachments even if you recognize the sender.

Hello Tam. At the Technical Panel this week we committed to work together to craft language that will address Resolute's and the IESO staff's main concerns. In particular, at the meeting, IESO staff expressed the concern that the original language proposed by Resolute could result in unintended consequences because it was not clear whether it would permit certain configuration scenarios that IESO staff had identified as potentially available.

The following language is designed to address staff's concern by specifying that the current versions of the market rules are not meant to disqualify configurations that the IESO has previously approved under the DR1, DR2, DR3 or CBDR programs. In this way, the Rule does not result in the risk of unintended consequences that staff identified as potentially available.

Please provide any comments you have on the draft by end of day on March 13. Thank you.

Chapter 7, Section 18.2.1.2:

18.2.1 No person may participate in a demand response auction nor receive a demand response capacity obligation unless that person has:

18.2.1.2 submitted and has been approved by the IESO, using forms and procedures as may be established by the IESO in the applicable market manual, the amount of demand response capacity that the demand response auction participant is willing to provide, provided that nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR1, DR2, DR3 or CBDR programs;

Chapter 7, Section 19.2.1.1:

19.2.1 A demand response market participant is eligible to participate as an hourly demand response resource provided that the demand response market participant:

19.2.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual, provided that nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR1, DR2, DR3 or CBDR programs;



George Vegh

Counsel | Conseil

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OPG Question #1

CBDR / DRA eligibility requirements comparison chart

Capacity Based Demand Response Program (CBDR)	Demand Response Auction (DRA)
Eligibility requirements for the Capacity Based Demand Response Program as set out in IESO Market Rules Chapter 7, s. 17.2.1:	Eligibility requirements for Hourly Demand Response Resources with Demand Response Capacity Obligations as set out in IESO Market Rules Chapter 7, s. 19.2.1:
A <i>demand response market participant</i> is eligible to participate in the <i>capacity based demand response program</i> provided that the <i>demand response market participant</i>: 17.2.1.1: demonstrates to the satisfaction of the IESO that it can provide a minimum level of <i>demand</i> reduction, as specified in the applicable <i>market manual</i>; 17.2.1.2: operates, maintains, and has submitted to the IESO a measurement and verification plan, at the <i>demand response market participant's</i> own expense, in accordance with the applicable <i>market manual</i> and the IESO has approved the plan. The <i>demand response market participant</i> shall not modify, vary or amend in any material respect any of the features or specifications of any project without first requesting IESO authorization and approval in accordance with the applicable <i>market manual</i>; 17.2.1.3: registers its <i>facilities</i> or <i>demand response contributors</i> as applicable, to the satisfaction of the IESO, in accordance with the applicable <i>market manual</i>; 17.2.1.4: is either: (i) a <i>demand response direct participant</i> who owns each <i>demand response contributor</i> and who will be able to reduce the <i>demand</i> of an eligible project as outlined in the applicable <i>market manual</i>; or (ii) a <i>demand response aggregator</i> with enforceable rights over each <i>demand response contributor</i> that will enable the <i>demand response aggregator</i> to reduce the <i>demand</i> of an eligible project as outlined in the applicable <i>market manual</i>; and 17.2.1.5: has provided <i>demand response security</i> in accordance with section 5A of Chapter 2.	A <i>demand response market participant</i> is eligible to participate as an <i>hourly demand response</i> resource provided that the <i>demand response market participant</i>: 19.2.1.1: demonstrates to the satisfaction of the IESO that it can provide the <i>demand response capacity obligation</i>, as specified in the applicable <i>market manual</i>; 19.2.1.2: registers its <i>facilities</i> and <i>demand response contributors</i> as applicable, to the satisfaction of the IESO, in accordance with the applicable <i>market manual</i>. The <i>demand response market participant</i> shall not modify, vary or amend in any material respect any of the features or specifications of any resource without first requesting IESO authorization and approval in accordance with the applicable <i>market manual</i>; [Note: definition of <i>demand response contributor</i> (see next page) is similar but not identical] 19.2.1.3: satisfies the <i>connection assessment</i> requirements in accordance with section 6 of Chapter 4, if required by the IESO, in accordance with the applicable <i>market manual</i>; 19.2.1.4: has provided <i>prudential support</i> in accordance with section 5 of Chapter 2.

Terms in italics above are defined terms in the IESO Market Rules Ch. 11. Key defined terms are included on next page.

DRA and CBDR eligibility requirement rules – key defined terms

- *capacity based demand response program* means the temporary program used by the IESO to transition the former OPA's contract based DR3 program into the IESO-administered market
- *commitment period* means the length of time for which a *demand response market participant* is required to fulfill its *demand response capacity obligation* by making its *demand response capacity* available for *dispatch* through the day-ahead commitment process and *energy market*
- *demand* means the rate at which electric *energy* is delivered to or by a system or part of a system, generally expressed in kilowatts or megawatts, at a given instant or averaged over any designated interval of time
- *demand response aggregator* means a person that is not a *demand response direct participant* and aggregates at least one *demand response contributor* to provide a portion of the aggregator's monthly contracted MW for the contracted *dispatch* period as outlined in the aggregator's *demand response schedule*
- *demand response auction* means the auction operated by the IESO to procure *demand response capacity*, in accordance with section 18 of Chapter 7
- *demand response capacity* means the expected quantity of load reduction a *demand resource* can provide during a specified availability window and *commitment period* for a *demand response auction*, and excludes *energy* transacted through the *energy market*
- *demand response capacity obligation* means the amount of *demand response capacity* that a *demand response market participant* is obligated to provide during the applicable availability window and *commitment period*, following a *demand response auction*
- *demand response contributor* means an interruptible load or behind the *meter generator* that is owned by a *demand response direct participant*, or with whom a *demand response aggregator* has enforceable rights, and in either case, who will provide a portion of the monthly contracted MW for the contracted *dispatch* period as outlined in the *demand response schedule*. A *demand response contributor* also means the delivery of a *demand response capacity obligation* with an *hourly demand response resource*, in which case a monthly contracted MW is replaced by a *demand response capacity obligation*
- *demand response direct participant* means a person who is not a *demand response aggregator* and whose *demand response contributors* are owned by the *demand response market participant* and the *facilities* in which the *demand response contributors* reside are controlled by the *demand response market participant*
- *demand response market participant* means a person who is a *market participant* that participates only in the *capacity based demand response program*, the *demand response pilot program*, or is a person with a *demand response capacity obligation*
- *energy* means, in respect of the *market rules* other than Chapter 5 or 6, real *energy* only and may, in respect of Chapter 5 or 6, mean both real *energy* and reactive *energy* if the context so requires
- *energy market* means the *real-time market* for *energy* administered by the IESO pursuant to Chapter 7 in which *energy offers* and *energy bids* are cleared and a *market price* for *energy* is determined
- *facility* means a *generation facility*, a *load facility*, a *transmission system*, a *distribution system*, located within the IESO control area, or any other equipment that is a component or part of the *electricity system*
- *hourly demand response* means the resource type described in section 19 of Chapter 7, that is used by the IESO as a delivery type, on an hourly basis, for a *demand response capacity obligation*

Union Gas Question #3



REGISTRATION APPROVAL NOTIFICATION

IESO File: 2189

This Registration Approval Notification (RAN) is issued by the *IESO* acting pursuant to its authority as system operator to make, administer and enforce the *IESO market rules*. This RAN does not in any way constitute an endorsement, agreement, consent or acknowledgement of any kind for the purposes of obtaining or administering a contract with the *IESO* for the procurement of electricity supply, *generation, demand response*, conservation and demand management or *ancillary services*.

Decision:	Allow Market Participant (MP) to be authorized as Demand Response Market Participant - Auction
Issue Date:	2016-03-01
Start Date:	2016-03-02
Expiry Date:	N/A
RAN Version:	1

Reviewed By Name:	C. Agavriloai
RAN Approver Name:	D. Dmytrow
MP ID:	102073
MP Name:	RESOLUTE FP CANADA INC.
MP Short Name:	ABICON
Registration Request Id:	2189
CAA ID:	Not Applicable
Facility Name and ID#:	
Resource Name and ID#:	
Description:	RESOLUTE FP CANADA INC has completed the requirements to be authorized as a Demand Response Market Participant – DR Auction
Maximum Injection and/or Withdrawal Allowed:	N/A
Connection Point(s):	Not Applicable
Scheduled RAN Energization Date:	Not Applicable
Scheduled RAN Decommission Date:	Not Applicable
Multiple Stages:	N/A
SCO Reference(s):	Not Applicable



REGISTRATION APPROVAL NOTIFICATION

Restrictions / Requirements / Conditions / Comments:	The next step for RESOLUTE FP CANADA INC is to register their hourly demand response resource in order to fulfill the demand response (DR) capacity obligations for the DR commitment periods.

N/A – Not Applicable

Sinopa Energy Question #1

Thermal Energy provides further details of \$11 million energy efficiency project with Resolute Forest Products in Thunder Bay, ON, RISI

Thermal Energy International, 20 December 2017

OTTAWA, Dec. 8, 2017 (Press Release) -Thermal Energy International Inc., a global provider of industrial and institutional energy efficiency solutions, is pleased to announce further details regarding the \$11 million energy efficiency project it announced on December 5, 2017. As announced by the Ontario government today, this project with Resolute FP Canada Inc. ("Resolute"), which includes the installation of two of Thermal Energy's proprietary FLU-ACE Heat Recovery Systems and the conversion of steam traps to Thermal Energy's proprietary GEM Steam Traps, has secured \$5 million in funding from the Ministry of Research, Innovation and Science through the TargetGHG Industrial Demonstration Program ("TargetGHG Stream 1 Program") administered by Ontario Centres of Excellence (OCE).

Thermal Energy has been working in partnership with Resolute for more than a year, to not only design, develop and now implement a heat recovery and steam conservation project that meets the energy savings and greenhouse gas reduction goals of Resolute's Thunder Bay, Ontario mill, but to also, at the same time, apply for and secure funding for the project from OCE's TargetGHG Stream 1 Program.

"Our ability to match our technology with the funding program and the client, and to manage and lead the application process was a key component to landing this project and the funding," said William Crossland, CEO of Thermal Energy. "This demonstrates that, we can not only deliver a project, but also identify and win the applicable funding for our customers as well. This combination of product and service provides a tremendous added value offering for our clients in a space where carbon taxes and funding opportunities for GHG reduction projects are steadily growing."

Supported by the Ontario government with funding from the Ontario Green Investment Fund, the TargetGHG Stream 1 Program is designed to encourage large Ontario industrial plants to adopt leading-edge emission reduction technologies from Ontario based solution providers such as Thermal Energy International. Adopting leading-edge clean technologies helps to keep Ontario industry globally competitive, and building better, stronger cleantech companies serves to increase Ontario's market share in a rapidly expanding global sector.

The stated benefits of the Target GHG Stream 1 Program for a solution provider like Thermal Energy include:

- Scale and demonstration of a GHG emission reduction innovations with an Ontario-based industrial emitter
- Validation of the GHG emission reduction innovation with a reference customer
- Developing connections into Ontario's cleantech ecosystem
- Increasing revenue and investment

The application to the Target GHG Stream 1 Program was a competitive multi-step process requiring: a detailed implementation plan and a third party assessment of GHG emission reductions and environmental co-benefits, information regarding the technology, value proposition, team and the use of funds. The third party assessment of GHG emission reductions must be carried out by an accredited verification body (accredited to ISO 14065) and provide validation of project-level GHG emission quantification. A successful application also required a full review by an External Review Panel (ERP), comprised of sector experts.

Preference was given to projects that, among other things, demonstrated the following:

- Application of innovative Ontario owned technologies
- Significant and reasonable reduction in GHG emissions at the lowest cost
- Complementary environmental co-benefits that improve the quality of soil, air, water.
- Broad applicability and benefit to the cleantech industry,
- Strong industry partnerships between industry emitter and solution provider
- Strong management capability to effectively implement the GHG reduction solution

"This project truly highlights the compelling case for improving energy efficiency and is a major win-win scenario for all involved," said William Crossland. "Improving energy efficiency is systematically cheaper than other greenhouse gas reduction solutions. This project is expected to result in natural gas savings of more than 35% while reducing the mill's greenhouse gas emissions by more than 20%, or approximately 43,000 metric tonnes. The estimated annual reduction in greenhouse gas emissions resulting from the project is equivalent 1 to the benefit from installing 11 large scale wind turbines with an estimated cost of about \$47 million 2. With a high return on investment and short, compelling paybacks, our proven energy efficiency solutions do not really cost money, they save money. We are pleased to have our proven technologies included in the OCE's TargetGHG incentive program and hope to leverage this to further develop our connections within Ontario's cleantech ecosystem."

"Supporting the efforts of large industries in their quest to reduce their greenhouse gas emissions is an important part of our government's Climate Change Action Plan," says Reza Moridi, Minister of Research, Innovation and Science. "With the help of our province's innovative cleantech companies, the TargetGHG program will help build a prosperous, low carbon economy and create a cleaner, more sustainable future for Ontario."

Thermal Energy Provides Further Details of \$11 Million Energy Efficiency Project with Resolute Forest Products, Newswire

Thermal Energy, 8 December 2017

*Also published in 4-Traders, Azcentral, Benton Courier, Big Spring Herald, Blackfoot Morning News, Buffalo News, Business The Antlers American, Canada Stockwatch, CEO CA, Daily Times Leader, Decatur Daily Democrat, Evening Leader, Fat Pitch Financials, Journal Sentinel Online, Malvern Daily Record, Mammoth Times, Minster Community Post, myMotherLode.com, Numbers Marketplace, Oil & Gas 360, Pilot News, Pittsburgh Post-Gazette, Post & Mail, Poteau Daily News, Punxsutawney Spirit, Renewable Energy World, Ridgway Record, St. Mary's Daily Press, Stack Markets Pettinga, Starkville Daily News, StockHouse, Stockwatch, Sweet Water Reporter, Valley City Times-Record, Wapakonet Daily News, Yahoo! News Canada and in **French** (see below)*

OTTAWA, ONTARIO / TheNewswire / December 8, 2017 - Thermal Energy International Inc. ("Thermal Energy" or the "Company") (TSX-V: TMG), a global provider of industrial and institutional energy efficiency solutions, is pleased to announce further details regarding the \$11 million energy efficiency project it announced on December 5, 2017. As announced by the Ontario government today, this project with Resolute FP Canada Inc. ("Resolute"), which includes the installation of two of Thermal Energy's proprietary FLU-ACE(R) Heat Recovery Systems and the conversion of steam traps to Thermal Energy's proprietary GEM(TM) Steam Traps, has secured \$5 million in funding from the Ministry of Research, Innovation and Science through the TargetGHG Industrial Demonstration Program ("TargetGHG Stream 1 Program") administered by Ontario Centres of Excellence (OCE).

Thermal Energy has been working in partnership with Resolute for more than a year, to not only design, develop and now implement a heat recovery and steam conservation project that meets the energy savings and greenhouse gas reduction goals of Resolute's Thunder Bay, Ontario mill, but to also, at the same time, apply for and secure funding for the project from OCE's TargetGHG Stream 1 Program.

"Our ability to match our technology with the funding program and the client, and to manage and lead the application process was a key component to landing this project and the funding," said William Crossland, CEO of Thermal Energy. "This demonstrates that, we can not only deliver a project, but also identify and win the applicable funding for our customers as well. This combination of product and service provides a tremendous added value offering for our clients in a space where carbon taxes and funding opportunities for GHG reduction projects are steadily growing."

Supported by the Ontario government with funding from the Ontario Green Investment Fund, the TargetGHG Stream 1 Program is designed to encourage large Ontario industrial plants to adopt leading-edge emission reduction technologies from Ontario based solution providers such as Thermal Energy International. Adopting leading-edge clean technologies helps to keep Ontario industry globally competitive, and building better, stronger cleantech companies serves to increase Ontario's market share in a rapidly expanding global sector.

The stated benefits of the TargetGHG Stream 1 Program for a solution provider like Thermal Energy include:

- Scale and demonstration of a GHG emission reduction innovations with an Ontario-based industrial emitter
- Validation of the GHG emission reduction innovation with a reference customer
- Developing connections into Ontario's cleantech ecosystem
- Increasing revenue and investment

The application to the TargetGHG Stream 1 Program was a competitive multi-step process requiring: a

detailed implementation plan and a third party assessment of GHG emission reductions and environmental co-benefits, information regarding the technology, value proposition, team and the use of funds. The third party assessment of GHG emission reductions must be carried out by an accredited verification body (accredited to ISO 14065) and provide validation of project-level GHG emission quantification. A successful application also required a full review by an External Review Panel (ERP), comprised of sector experts.

Preference was given to projects that, among other things, demonstrated the following:

- Application of innovative Ontario owned technologies
- Significant and reasonable reduction in GHG emissions at the lowest cost
- Complementary environmental co-benefits that improve the quality of soil, air, water.
- Broad applicability and benefit to the cleantech industry,
- Strong industry partnerships between industry emitter and solution provider
- Strong management capability to effectively implement the GHG reduction solution

"This project truly highlights the compelling case for improving energy efficiency and is a major win-win scenario for all involved," said William Crossland. "Improving energy efficiency is systematically cheaper than other greenhouse gas reduction solutions. This project is expected to result in natural gas savings of more than 35% while reducing the mill's greenhouse gas emissions by more than 20%, or approximately 43,000 metric tonnes. The estimated annual reduction in greenhouse gas emissions resulting from the project is equivalent¹ to the benefit from installing 11 large scale wind turbines with an estimated cost of about \$47 million². With a high return on investment and short, compelling paybacks, our proven energy efficiency solutions do not really cost money, they save money. We are pleased to have our proven technologies included in the OCE's TargetGHG incentive program and hope to leverage this to further develop our connections within Ontario's cleantech ecosystem."

"Supporting the efforts of large industries in their quest to reduce their greenhouse gas emissions is an important part of our government's Climate Change Action Plan," says Reza Moridi, Minister of Research, Innovation and Science. "With the help of our province's innovative cleantech companies, the TargetGHG program will help build a prosperous, low carbon economy and create a cleaner, more sustainable future for Ontario."

This project represents Thermal Energy's largest heat recovery and largest GEM orders to date and is expected to be substantially completed and revenue earned over the next 18 months.

About Ontario Centres of Excellence (OCE) Inc.

OCE drives the commercialization of cutting-edge research across key market sectors to build the economy of tomorrow and secure Ontario's global competitiveness. In doing this, OCE fosters the training and development of the next generation of innovators and entrepreneurs and is a key partner with Ontario's industry, universities, colleges, research hospitals, investors and governments. A champion of leading-edge technologies, best practices and research, OCE invests in sectors such as advanced health, digital media and information communications, advanced manufacturing and materials, and cleantech including energy,

environment and water. OCE is a key partner in delivering Ontario's Innovation Agenda as a member of the province's Ontario Network of Entrepreneurs (ONE). Funded by the Government of Ontario, the ONE is made up of regional and sector-focused organizations and helps Ontario-based entrepreneurs rapidly grow their company and create jobs.

About Resolute Forest Products Inc.

Resolute Forest Products is a global leader in the forest products industry with a diverse range of products, including market pulp, tissue, wood products, newsprint and specialty papers, which are marketed in over 70 countries. The company owns or operates some 40 manufacturing facilities, as well as power generation assets, in the United States and Canada. Resolute has third-party certified 100% of its managed woodlands to internationally recognized sustainable forest management standards. The shares of Resolute Forest Products trade under the stock symbol RFP on both the New York Stock Exchange and the Toronto Stock Exchange.



Revised Market Rule Amendment Submission

This form is used to request an amendment to the *Market Rules*. Please complete the first four parts of this form and submit the completed form by email to the following:

Email Address: Rule.Amendments@ieso.ca

Attention: Market Rules Group

Subject: Market Rule Amendment Submission

All information submitted in this process will be used by the *IESO* solely in support of its obligations under the *Electricity Act, 1998*, the *Ontario Energy Board Act, 1998*, the *Market Rules* and associated policies, standards and procedures and its licence. All submitted information will be assigned the *confidentiality classification* of "Public" upon receipt. You should be aware that the *IESO* will *publish this amendment submission* if the *Technical Panel* determines it warrants consideration and may invite public comment.

Terms and acronyms used in this Form that are italicized have the meanings ascribed thereto in Chapter 11 of the *Market Rules*.

PART 1 – SUBMITTER'S INFORMATION

Please enter contact information in full.

Name: Jacques Vachon, Senior VP, Corporate Affairs and Chief Legal Officer, Resolute FP Canada Inc.

(if applicable) *Market Participant /*
Metering Service Provider No.¹: 125299

Market Participant Class:
Demand Response Market Participant

Telephone: 514-394-2296

E-mail Address: jacques.vachon@resolutefp.com

PART 2 – MARKET RULE AMENDMENT SUBMISSION INFORMATION

Subject: Request for review of market rule pursuant to Chapter 3, section 4.2.4

Title: Demand Response Market Rule unjustly discriminates against a Market Participant / a class of Market Participants

Nature of Request (please indicate with x)

☒ Alteration

☐ Deletion

☐ Addition

¹ This number is a maximum of 12 characters and does not include any spaces or underscore.

PART 1 – SUBMITTER’S INFORMATION

Chapter: <u>Market Rule</u>	Appendix: _____	Sections: <u>18.2 and 19.2.1.1</u>
Chapter <u>7</u>		
Sub-sections proposed for amending: _____		

PART 3 – DESCRIPTION OF THE ISSUE

Provide a brief description of the issue and reason for the proposed amendment. If possible, provide a qualitative and quantitative assessment of the impacts of the issue on you and the *IESO-administered markets*. Include the Chapter and Section number of the relevant *market rules*.

BACKGROUND:

Resolute FP Canada Inc. (“Resolute”) is filing this request for an amendment to Chapter 7, sections 18.2 and 19.2.1.1 of the Market Rules (the “Market Rules”) pursuant to Chapter 3, section 4.2.4 of the Market Rules and ss. 35(1) and 35(4) of the Electricity Act, 1998 (“Electricity Act”).

The purpose of this amendment is to restore the original intention of the Market Rules with respect to the determination of a demand response market participant’s demand response capacity (Chapter 7, s. 18.2) and eligibility to participate as an hourly demand response resource (Chapter 7, s. 19.2.1.1) (collectively, the “Capacity and Eligibility Requirements”).

The original intention of the Capacity and Eligibility Requirements, as expressed in presentations to the Technical Panel and in the Market Rule Amendment proposals in respect of the Market Rules, included transitioning Capacity and Eligibility Requirements under the DR2, DR3 and CBDR programs (as defined below) to the DRA.

In order to ensure that the proposed amendments do not result in unanticipated consequences and do not constitute a design change to the DRA, Resolute has revised its proposed amendment to ensure that the amendment does not result in changes to Capacity and Eligibility Requirements that have not already been considered by the Technical Panel and approved under the DR2, DR3 and CBDR Programs. To achieve this, the revision simply confirms that “nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3, or CBDR programs.”

The full text of the proposed amendment is in Part 4.

BRIEF DESCRIPTION OF THE ISSUE:

Context

As a Demand Response Market Participant (“**DRMP**”), Resolute has been providing DR to the IESO under the Demand Response 2 (“**DR2**”) and Demand Response 3 (“**DR3**”) programs created by the IESO’s predecessor, the Ontario Power Authority, as well as the Capacity Based Demand Response program (“**CBDR**”) and the current DR auction (“**DRA**”) (collectively, DR2, DR3, CBDR and DRA will be referred to as the “**Demand Response Programs**”).

For the purpose of its participation in the Demand Response Programs, Resolute registered its Thunder

PART 3 – DESCRIPTION OF THE ISSUE

Bay news-mill manufacturing facility as the Demand Response Program resource (the “**Mill**”). To do this, Resolute made use of two revenue-grade electricity meters: one that measures the consumption of the Mill from IESO-controlled grid (the “**IESO Grid Meter**”), and the other that measures the consumption of the Mill from its cogeneration facility (the “**Mill Revenue Meter**”).

The sum of the data measurements from these two meters accurately identify the total load of the Mill and that Facility’s available capacity for the Demand Response Programs. The total load for the Mill was determined, and continues to be, between 70 – 110 megawatts, depending on manufacturing operations.

The IESO accepted this measurement as accurately reflecting the total available capacity of Resolute’s Mill and approved Resolute’s participation in DR2, DR3, CBDR and the DRA.

Resolute’s Registration For The 2016/2017 Auction

In registering for the DRA, and with the IESO’s knowledge, guidance, and participation, Resolute understood that the total load of the Mill would be measured using the same aggregated meter data, measured by both the IESO Grid Meter and the Mill Revenue Meter, as was previously relied on to determine Resolute’s total available capacity for the DR2, DR3 and CBDR Programs.

Resolute was successful in both the 2016 and 2017 DRAs, and the IESO awarded it a maximum demand response capacity obligation of between 46 and 51 megawatts under these programs, reflective of its actual total load.

REASON FOR THE REQUESTED AMENDMENT:

In supporting the Market Rules in 2015, the Technical Panel was advised that the purpose of the Market Rules was to improve the “**integration of existing DR contracts** in the IESO-administered energy market and dispatch proces”.¹

The first steps involved in achieving this goal were to “implement market rules to **transition DR3 contractual terms** for a market based structure (capacity-based demand response)” and to “implement a DR Auction mechanism **“to replace OPA DR contracts”**”.² Similarly, the Technical Panel was advised that the target MW requirement for the DR auction “was based on **the quantity of DR expiring from CBDR to maintain 500 MW target**.”³

The Participation and authorization amendment to the Market Rules were described as facilitating the continuance of currently approved facilities and facilitating new DR participation.⁴

“In order to attract the broadest range of potential DR providers, **including current demand response providers** as well as new entrants and new technologies, we have sought to reduce the requirements for participation in the auction.”

Similarly, the Market Rule Amendment Submission in respect of the Market Rules specifically stated that, “In developing the demand response auction, **the approach has been to facilitate participation by current demand response providers**, potential new participants and new technologies.”⁵

¹ Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 2.

² Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 3.

³ Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 7.

⁴ Demand Response Auctions – Overview, Presentation to Technical Panel, June 2 20, 2015.p. 8.

PART 3 – DESCRIPTION OF THE ISSUE

The Market Rules were drafted in a way to facilitate these objectives. Specifically, the Market Rules made no material changes or restrictions to the Capacity and Eligibility Requirements that are set out in the Market Rules respecting the IESO's CBDR Programs.⁶

Despite the approval of the continuation of the existing Capacity and Eligibility Requirements, after the Market Rules were passed, IESO staff took the position that the baseline measurement for Resolute's participation in the DRA will no longer reflect the CBDR Capacity and Eligibility Requirements that are set out in the market rules. Instead, staff's position was that the Capacity and Eligibility Requirements would only take into account measurement data from the IESO Grid Meter. As a result, staff advised that it will not accept or refer to measurement data from the Mill Revenue Meter.

The consequence of IESO Staff's position is that the electricity measured by the Mill Revenue Meter meter will no longer take into account in measuring the Mill's baseline consumption. Consequently, the mill will, for the first time, and contrary to the IESO's approved participation in the DR2, DR3⁷ and CBDR Programs, artificially be deemed to only consume electricity from the grid and Resolute will not be able to have its demand reduction measured against the demand served by its self-generation (and measured by the Mill Revenue Meter).

IESO Staff has been unable to identify a Market Rule that supports this position and, in particular, could not identify how the Market Rules that transitioned the CBDR program to the DRA supported this change.

In discussing Resolute's amendments to the Market Rules with the Technical Panel, Staff raised two concerns. First, that scenarios that involve variations of Resolute's approved Capacity and Eligibility Requirements "could potentially yield unintended consequences if not thoroughly assessed"; and second, that Resolute's proposal is a "design change"⁸

Resolute understands the concerns respecting unintended consequences and has therefore revised its proposed amendment to ensure that it does not result in changes to Capacity and Eligibility Requirements that have not been considered by the Technical Panel and approved under the DR2, DR3 and CBDR Programs.

As to the "design change" point, it does not seem plausible that a configuration that has been in place and unchanged since 2013 has somehow become a design change. In any event, the revised amendment set out in Part 4 makes it clear that the Market Rule does not result in changes to metering configurations previously approved under the DR2, DR3 or CBDR programs.

⁵ Demand Response Auctions – Participant Authorization & Facility Registration, Version 5, p. 2 (MR-00416-R00), undated.

⁶ See Market Rules, Chapter 7, s. 17.2.1. For a comparison of the Capacity and Eligibility Requirements under the CBDR and the DRA, see Appendix A.

⁷ The approvals for DR2 and DR3 were made by the IESO's predecessor organization, the Ontario Power Authority ("OPA"). The approvals for the CBDR were made by the post-merger IESO. Upon the amalgamation of the two organizations, the obligations, etc. of the OPA became obligations of the IESO: See Electricity Act, ss. 25.8(1).3.

⁸ IESO Response to Proposed Market Rule Amendment submitted by Resolute, MR-00437: Demand Response – Registration and Metering Requirement, Technical Panel, March 5, 2019.

PART 5 – FOR IESO USE ONLY

Criteria for Acceptance: _____
Priority: _____
Criteria for Assigning Priority: _____
Not Accepted (please indicate with x): ☐
Technical Panel Minutes Reference: _____
Technical Panel Comments: _____

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Technical Panel Meeting Agenda

Date: May 2, 2019	Time: 9:00 am to 10:50 am
Meeting Chair and Facilitator:	Mike Lyle, Vice President, Legal Resources and Corporate Governance, IESO
If you have any questions, or to register as an observer, please email IESO Engagement at: engagement@ieso.ca	

Time	Agenda Item	Responsible Party	Expected Actions
9:00 am (10 mins)	Item 1: Introduction and Administration • Attendance & Chair's Remarks	Mike Lyle	Information
9:10 am (45 min)	Item 2: Technical Questions and Answers for IESO and Resolute regarding MR-00437 • IESO Memo MR-00437: Demand Response – Registration and Metering Requirements • IESO Responses to TP Questions from April 16 • Resolute Responses to TP Questions from April 16	All	Information
9:55 am (45 min)	Item 3: Technical Panel vote on MR-00437	Mike Lyle	Information
10:40 am (10 min)	Other Business	Mike Lyle	Information
10:50 am	Adjourn	Mike Lyle	

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IESO Technical Panel Meeting

Minutes of Meeting

Date held: May 2, 2019	Time held: 9:00 am	Location held: IESO Office, Toronto
Invited/Attended	Sector Representation	Attended; Regrets
Robert Bieler	Consumer	Present
Ron Collins	Energy Related Businesses and Services	Regrets
Dave Forsyth	Consumer	Present
Sarah Griffiths	Other Market Participant	Present
Robert Lake	Residential Consumer	Present
Phil Lasek	Industrial Consumer	Present
Robert Reinmuller	Transmitter	Present
Sushil Samant	Generator	Present
Joe Saunders	Distributor	Present
Jessica Savage	IESO	Present
Vlad Urukov	Generator	Present
Julien Wu	Wholesaler	Present
Michael Lyle	Chair	Present
Observers / Presenters		
Tam Wagner	IESO	Present
Ioan Agavrioloai	IESO	Present
Peter Giardetti	Resolute Forest Products	Present
Tony Ruberto	Resolute Forest Products	Present
George Vegh	McCarthy Tetreault	Present
Heloise Apesteguy-Reux	McCarthy Tetreault	Present
Robert Doyle	IESO	Present
James Hunter	IESO	Present
Secretariat		
Reena Goyal	IESO	Present

Jason Grbavac	IESO	Present
Prepared by: Mitchell Beer / Smarter Shift Inc.		

Agenda Item 1: Introduction and Administration

Chair's Remarks:

The Chair welcomed participants to the special meeting, noting that inclement weather had affected some members' transportation to Toronto. He said Mr. Collins was stuck at the airport in Windsor, but had provided his vote and supporting rationale in advance.

The published agenda for the session called for follow-up discussion, answers to any questions from Panel members following the latest Q&A responses from the IESO and Resolute Forest Products, and a final phase where members were to vote on whether to recommend the proposed Market Rule amendment to the IESO Board and provide the rationales for their votes.

The Chair said George Vegh, McCarthy Tetreault, had requested an opportunity for opening remarks, and that the IESO would be accorded the same consideration if members granted the request. There were no objections to Resolute's request, and the agenda was approved as amended.

Agenda Item 2: Opening Remarks

George Vegh thanked Technical Panel members for their patience in considering Resolute's proposed Market Rule amendments and acknowledged that the proposal was different from any others the Panel had ever received, having been brought forward by a market participant rather than IESO staff. He said the system appeared not to have been designed for a situation in which a market participant brings forward a proposed rule that is opposed by staff, and suggested it had been difficult for the Secretariat to act as a neutral facilitator while simultaneously advocating for its own position. While it would be entirely appropriate for staff to take a different position on the merits of a proposal, he said the administrative role should not support that advocacy position.

Mr. Vegh expressed his view that the overlapping positions were reflected in the decision to refer the draft amendment to a working group before bringing it forward to the Technical Panel, and in the "editorializing" by staff that he said occurred after Resolute put forward its position. He also took issue with the IESO's suggestion that it was somehow inappropriate for the company to communicate directly with individual Panel members between meetings, even though nothing in the Market Rules explicitly prevents that communication. Mr. Vegh interpreted those staff actions as attempts to undermine the proposed Market Rule amendment.

Turning to the immediate decision on the day's agenda, Mr. Vegh referred to the Technical Panel's terms of reference, suggesting that the Panel fulfilled its mandate when it left the market rules for demand response essentially unchanged in the transition from the Capacity-Based Demand Response (CBDR) program to the Demand Response Auction (DRA). He said Panel members could uphold that interpretation of events by restoring the Market Rule to what he maintained was its original intention.

Mr. Vegh referred to the more than 100 pages of documentation Resolute had supplied in advance of the meeting, consisting largely of staff presentations and submissions to the Panel dating back to 2015. Many of those statements expressed the intention to transfer existing contracts to the new rules, and he said none of them indicated that the new rules would disqualify existing methods of achieving demand response. With Resolute's system in place since 2013, he said IESO staff had known about and facilitated the configuration. Given that the stated intent of the transition to DRA was to broaden the definition of demand response and simplify the registration process, Mr. Vegh said there were only two possible explanations for the staff position: that they had deliberately withheld information in 2015, an interpretation Mr. Vegh said he did not accept, or that they were seeking to justify a unilateral Market Rule amendment after the fact.

He added that a Panel vote to restore the Market Rule to what he said was its original intent would not prevent staff from bringing forward a proposed amendment for members to consider on its merits. But he cautioned that failing to approve the Resolute proposal would signal that staff have the discretion to implement design changes that have significant impacts on market participants, without regard for the terms of the rules or staff representations on those rules. Such an interpretation would mean increased regulatory risk for entities that operate in the market, and would outweigh any short-term cost reductions for customers.

Jessica Savage, IESO, said the IESO could not support the proposed Market Rule amendment, since it would have an adverse impact on the reliable, efficient operation of the IESO-controlled grid and introduce inconsistency in the manner in which market participants are treated. She expressed staff's concern that the proposal would require ratepayers to pay for a service they were not receiving.

She specified that the Panel's mandate was to determine whether or not to recommend the proposed amendment to the IESO based on its merits – not to determine whether historical actions were consistent or inconsistent with the Market Rules. The historical question was the subject of a separate dispute resolution process, she said, but the Panel's role was to make recommendations for the future.

Ms. Savage maintained there was sufficient information on the record to allow the Panel to make a decision on a go-forward basis.

Ms. Savage then turned to the Resolute response to the question posed by the Technical Panel April 16, and the four later follow-ups from Resolute's subsequent conversations with individual Panel members, of which she said the IESO had no knowledge until Resolute submitted its filing a few days before the meeting. Responding to Mr. Urukov's question about separate meter registration, Ms. Savage said the IESO did not accept Resolute's premise that there was no way to achieve the separation: there have been configurations with separate meters on load and generation resources, she stated, and there is no physical or technical barrier to a market participating registering and measuring their generation separately.

Responding to members' questions about the Technical Panel's mandate, she reiterated staff's position that any disagreements on historical matters were within the purview of the dispute resolution panel. In that light, she said the chronology of correspondence on Resolute's facility registration was irrelevant to the matter before the Panel – even if members had sympathy with Resolute's position, she said that must not be a factor for prospective rulemaking.

On the question of whether the Market Rule amendment specified that the baseline load for a connected resource must be measured at the IESO-controlled grid, she said that requirement should go without saying, since all market rules dealing with directly-connected resources focus on activity at the ICG, measured via the IESO revenue meter.

Ms. Savage disagreed with Mr. Vegh's characterizations of IESO staff conduct as not being open, honest, and transparent, particularly in light of the off-record conversations that Mr. Vegh sought to have with Panel members subsequent to the April 16 Panel meeting. When a member asked the Secretariat whether those communications were appropriate, Ms. Savage said staff responded that there were no rules to prevent them, so it was up to the individual member to decide. She recalled Mr. Vegh's January 2019 Freedom of Information request, which was brought to the Panel's attention on January 29, seeking all communications created or sent between IESO staff and the Technical Panel in respect of this Market Rule amendment, pursuant to his concern that staff had inappropriately injected themselves into the process.

She concluded that staff's opposition to the proposed Market Rule amendment did not make them bad actors, but simply meant they could not support a proposal that would adversely affect the reliable, efficient operation of the grid and introduce inconsistency in the market.

Agenda Item 3: Technical Questions and Answers for IESO and Resolute regarding MR-00437

Robert Lake identified himself as the Technical Panel member who had contacted the Secretariat after being invited to participate in an off-record conversation. As a past member of various municipal councils and boards, he said he'd been concerned that sharing information with some but not all participants in the process would put the group on an unequal footing.

The Chair invited questions from Panel members.

Sushil Samant noted that the Market Rules contain a very strict definition of demand response capacity, spelling out that when a market participant reduces load, it can't subtract that from the capacity it injects into the grid. He asked Resolute whether its two proposed amendments contradicted that definition, and if so, how the conflict could be resolved. Mr. Vegh said there was only one proposed amendment on the table, recalling that after Panel members expressed concern about unintended consequences, Resolute revised and narrowed its draft to specify no adverse impact on previously-approved configurations. He said the amendment entailed no change in the definition of demand response, since "capacity" means the ability to reduce load and that's what Resolute had been doing under the Market Rules.

Mr. Samant asked whether the definition excluded injected capacity. Mr. Vegh said it had never been Resolute's practice to treat injected energy as meeting a demand response obligation, adding that the Thunder Bay facility's meter configuration was designed to prevent that from happening.

Mr. Samant asked whether the Panel was allowed to vote in a way that would invalidate the provisions of an existing Market Manual. The Chair clarified that if a Market Rule is amended in a way that conflicts with a Market Manual, the Manual is adjusted to match.

Mr. Forsyth asked whether the Panel should seek advice from counsel to reconcile the conflicting messages it was receiving from Resolute and staff. The Chair said he had heard no disagreement on whether the Panel could vote: his understanding of Ms. Savage's position was

that members should not consider historical issues that were subject to the dispute resolution process.

Ms. Griffiths said the process in response to the proposed Market Rule amendment had been inefficient, through nobody's fault. She suggested the Technical Panel schedule a debrief at a future meeting to look back on what was good, bad, and lacking in the process, to prepare for similarly contentious situations as the Market Renewal process unfolds. The Chair agreed, and Mr. Urukov supported the suggestion.

Mr. Bieler asked whether the IESO Board would become aware of the proposed amendment if the Technical Panel voted against recommending it for approval. The Chair said the proposal would go to the Board, whether or not Panel members decided to recommend it. Ms. Savage and the Chair added that every member's rationale for their vote would also be forwarded to the Board, pursuant to the Panel's regular practice.

Mr. Samant asked how the IESO measures demand response capacity at the IESO-controlled grid. James Hunter, IESO said the question was pertinent to Resolute's position that it was simply trying to clarify the existing Market Rule, and the IESO's position that the proposed amendment represented a change. He said it's legitimate to look at historical documents in an effort to determine their intent, but that staff would never have supported treating demand response in the way Resolute was proposing, and does not treat it that way now. When the IESO defines demand response capacity as a reduction in load, he said it's always been self-evident that that meant the load at the IESO-controlled grid—it's the definition that is most relevant to the system operator and the load that a demand response activation is intended to reduce.

Against that backdrop, Mr. Hunter said Resolute's scenario—that demand response referred to a load reduction at the facility level—was far afield from what demand response was ever intended to achieve or require. While it might be possible to stretch the rule to accommodate that activity, he said the IESO wouldn't support the resulting program because of the reliability and consistency issues it would face.

As the program stands, Mr. Hunter added, a resource is registered, it receives a capacity obligation, and the wholesale revenue meter is used to resolve the transaction. On that basis, the IESO's position is that Resolute's proposed Market Rule amendment would never have been accepted by the IESO and cannot be supported now.

Mr. Vegh replied that the configuration could not be that far afield, given that it had been in place since 2013. He contended that the IESO was aware of it, had actually designed it, and everyone understood that a demand response participant would be compensated for reducing load when it was called upon to do so. If the IESO had a different expectation, he said, it was never communicated in the hundreds of pages of technical detail on the subject. Mr. Hunter responded that the configuration was an Ontario Power Authority design, intended to support a contract-based procurement process, and the system went through a transitional phase for the express purpose of introducing a market-based program that treated participants consistently. He said it was unclear to him what purpose Resolute thought the transition was to serve, since the mechanism for activating capacity was the only significant difference between CBDR and DRA. If the intent had been to maintain the original methodology, he said, it was already

embodied in the previous set of rules—hence the IESO would never have initiated the transition to the Demand Response Auction.

Mr. Vegh replied that if that was the intent, he would have expected staff to say so, adding that there would be nothing inappropriate in running a program and learning by doing as long as the resulting rule changes were brought forward for open discussion. He repeated his contention that staff had initiated a unilateral change without bringing it to anyone's attention, contrary to their authority under the rules.

Ioan Agavriloai, IESO suggested the group move forward from discussing the history and how it should be interpreted. In reply to Mr. Samant, he said reliability, market efficiency, and transparency are fundamental tenets of the IESO's mandate that staff would never violate. So the IESO would never accept an amendment that allowed any market participant to define the amount of service it provided to the grid based on its participation in a previous program. Mr. Vegh expressed concern that a market operator might sometimes use reliability as a trump card to silence discussion, and suggested staff should be obliged to explain the actual reliability or efficiency impacts of the proposed Market Rule amendment.

Heloise Apesteguy-Reux, McCarthy Tetreault, said she found no reference in the Market Manuals of a connection at the IESO-controlled grid. Mr. Hunter referred her to definitions in Chapter 11 and elsewhere, but explained that the purpose of the Manuals is to apply technical direction to procedures and activities in accordance with the rules, not to interpret the policy decisions that inform the program. Responding to Mr. Vegh's earlier point, he said the IESO would only spot an issue following an activation request, adding that any gap in reliability is inherently problematic, whether it occurs once or 100 times. He said Resolute's proposed design raised reliability concerns precisely because an activation would not produce a full reduction of demand at the IESO-controlled grid.

Mr. Vegh said he would be happy to respond to Mr. Hunter's point, but acknowledged the conversation was going in circles and said he believed Panel members understood the state of the debate. The Chair agreed that was a fair assessment.

Mr. Samant asked whether the definition of demand response capacity should be tightened up to specify load reductions at the IESO-controlled grid. Mr. Hunter said the issue had never arisen before, but agreed to take the question under advisement.

Agenda Item 4: Technical Panel Vote on MR-00437

The Chair invited Technical Panel members to vote on whether to recommend the proposed Market Rule amendment to the IESO Board, then provide the reasoning behind their votes. He reiterated that Mr. Collins had provided his vote and rationale in absentia.

Members voted as follows.

Mr. Reinmuller: No

Mr. Lake: No

Mr. Urukov: No

Mr. Samant: No

Mr. Bieler: No

Ms. Savage: No
Mr. Saunders: No
Ms. Griffiths: Yes
Mr. Forsyth: Yes
Mr. Lasek: Yes
Mr. Wu: Yes
Mr. Collins, as reported by the Chair: No

Technical Panel Vote and Rationale on MR-00437

TP Member	Vote (In Favour)	Supportive Rationale
Robert Bieler	No	Mr. Bieler thanked all participants for a lively deliberation, but indicated that he had put much of that discussion aside to look at the merits and implications of the proposed Market Rule amendment in its own right. He said he'd understood that Resolute's configuration could deliver a certain amount of capacity reduction at the IESO revenue meter, and that's what consumers and ratepayers should be paying for. With its own generation facility, Resolute would have the opportunity to sell power into the grid under other programs if it wished to do so, he said, but the objective and intent of the demand response program is to measure demand reductions at the IESO-controlled grid. While he agreed with Mr. Vegh that that expectation was not stated explicitly, Mr. Bieler said it was self-evident that that's what the IESO cares about and sees. On that basis, any past oversights or errors should not outweigh the spirit and intent of the way the program was designed to operate.
Robert Reinmuller	No	Mr. Reinmuller stated that, with all due sympathy to Resolute for the history leading up the proposed amendment, those matters did not reflect in his vote. He said the fundamental goal of managing the grid and controlling capacity and reliability dictated a clear, unambiguous, unique measurement point. Grid actions rely more and more on fast responses occurring in seconds or minutes, 365 days a year, he added, and grid automation requires clean data, based on clear measurements of load and generation. On that basis, he said he supported a unique measurement point that does not introduce any questions about the quantities required or received, and therefore opposed the proposed Market Rule amendment.

TP Member	Vote (In Favour)	Supportive Rationale
David Forsyth	Yes	Mr. Forsyth commended the IESO for strictly upholding and vigorously defending the Market Rules as staff interpret them, but said his vote turned on intent, not interpretation. As an active participant in the Demand Response Working Group during the evolution of the demand response program, Mr. Forsyth said he represented a large industrial user's interest by ensuring the rules and procedures were compatible with its operating characteristics and ability to participate after the transition was complete. He recalled a process that included many new and amended rules that would have material effects on DR participants, all of them debated and discussed at length. But he said he had no recollection and could find no record of discussions about existing DR metering configurations that would be disallowed under the Demand Response Auction. As a party to the CBDR contracts, Mr. Forsyth said the IESO would have had access to all the relevant details, including metering configurations. To its credit, since market opening, he said the IESO has always made him aware of any changes that might have a negative impact on his company's participation in markets or programs, and provided opportunities for input and comment. But in this case, neither Resolute nor the IESO indicated that any of that interaction had occurred. He said the proposed Market Rule amendment would prevent Resolute's continued participation with its pre-existing metering configuration.
Joe Saunders	No	After tracing the history of the proposed Market Rule amendment, Mr. Saunders said the overarching issue was that the IESO's demand response programs do transition over time, and facilitating participation does not mean the rules never change, or that a participant in a past program automatically qualifies for the current one. The Technical Panel gave careful consideration to the unintended consequences that could arise from the assumption of an automatic transition for Resolute or any other market participant, and Mr. Saunders cited the possibility of other market participants entering the program with similar meter configurations as problematic and potentially harmful. He cited other technical concerns that had arisen, as well, including the bi-directional flow of energy onto the IESO-controlled grid. Mr. Saunders said the IESO should give consideration to the way

TP Member	Vote (In Favour)	Supportive Rationale
		new programs are rolled out, particularly with market participants that are not primarily focused on energy, and should provide better support to help those clients understand the applicable programs and navigate the regulatory process. But in this instance, he said he could not support the Market Rule amendment.
Julien Wu	Yes	Mr. Wu said he had not been a part of the stakeholdering process during the transition to the Demand Response Auction, so he couldn't weigh in on the past. He said he was inclined to accept the IESO's judgement and expertise if staff advised that a proposal was not satisfactory from a reliability and rate-payer benefit's perspective. He adds that the Technical Panel's mandate was to safeguard the rulemaking process, not to engage in dispute resolution. Yet he feels that the debate has been on a dispute regarding market process and outcome, and thus is outside the Technical Panel's mandate and expertise. But he explained that he had two reasons to vote in favour of the proposed amendment – so that it could be considered by the Board. First, given that the IESO designed and had complete oversight of the DR Auction process, and because the IESO approved auction participants' configurations in the qualifying process, the onus was on the IESO to assess the suitability of Resolute's meter configuration before allowing Resolute to participate in the auction. As a market participant, Resolute can only rely on the IESO's approval to make business and investment decisions. And fact of the matter was that the IESO approved Resolute's offer configuration in more than one auction. If Resolute's configuration was deemed unsatisfactory after the fact, he said, the IESO could have used rules, processes, and notification bulletins to correct the gap between the Market Rules and its original intent, and disqualify Resolute and other similar participants from future auctions. The failure to pursue those processes might have explained the lack of feedback from other DRA participants. Again, if Resolute's configuration was approved by the IESO and discovered to be problematic after the fact, the IESO has processes for changing and correcting market rules going forward. The subsequent disqualification of Resolute's already approved, offered and cleared capacity amounted to retroactive rulemaking. Mr. Wu said he couldn't support retroactive rulemaking as a market participant.

TP Member	Vote (In Favour)	Supportive Rationale
		He added that, from experience buying and selling capacity within his sector, most of the work and business decisions come at the qualification stage. So it would be troubling for a market participant to bid successfully, receive a capacity obligation, deliver the product, then be penalized because the qualification process it followed and relied on to make business decisions were inaccurate. Noting that this was the first time a market participant had ever brought forward a proposed Market Rule amendment, Mr. Wu said he hoped there would be lessons learned from the process.
Phil Lasek	Yes	Mr. Lasek agreed with the rationale noted by Mr. Forsyth and Ms. Griffiths. He also stated that legacy installations should be able to continue with their current meter installations. For plants to change to meet the new rules, existing electrical switchgear changes would be expensive and sometimes difficult. IESO should provide assistance in providing options to meet the intent of the DRA.
Robert Lake	No	Mr. Lake said he had hoped consideration of the proposed amendment would point toward an opportunity to bring more participants into the demand response market. He said that ultimately demand response is just one aspect of reliability. Mr. Lake noted that we use 3% or 5% voltage cuts, spinning reserve, imports, over and under voltage protections and incremental capacity. Demand response is a tool that must be available. He said he accepted the position of the staff, who manage the system every day, and have better knowledge than us, that the proposed amendment could have a negative impact on system reliability, efficiency, and cost.
Ron Collins	No	Mr. Collins said he saw no evidence that the IESO had explicitly accepted Resolute's metering configuration, and no evidence of an actual or implied warranty that participants in past demand response programs would automatically be accepted into a new program. He expressed concern that the proposed amendment would introduce the potential for market participants to use a combination of reductions at the IESO-controlled grid and behind-

TP Member	Vote (In Favour)	Supportive Rationale
		the-meter activities to satisfy their DR capacity obligation, therefore not realizing the expected DR capacity contribution being realized at the ICG as intended by the DR programs, while potentially introducing inconsistency in the treatment of participants in the IESO-administered markets. Mr. Collins expressed concern about the IESO's handling of the process. He said it is evident that the IESO delayed in providing the Technical Panel information when the issue first emerged. Further, the IESO did not provide responses to Resolute in a timely manner in all circumstances. Finally, the IESO appeared to be reluctant at times to disclose information throughout the process to all parties. I therefore would recommend the IESO undertake a review of the process in aim to improve the transparency, efficiency and effectiveness of the process.
Sushil Samant	No	Mr. Samant said he agreed with Mr. Urukov's comments, adding that: • a market participant shouldn't expect to apply the rules from a past program after a new one is introduced, • the current program has no ambiguity in specifying load reductions at the IESO-controlled grid (<i>Demand Response Capacity</i> is a defined term), • he had based his vote on issues of fairness to ratepayers, grid reliability and unintended consequences, and stated that the events that occurred in the past are beyond the scope of the TP. "The past is the past". He finds it encouraging that RFP is pursuing another "process" with the IESO over their past interactions and hopes them success - because at the end of the day, "we're all loads. We all pay."
Vlad Urukov	No	Mr. Urukov acknowledged that a transition from a program to a market-based solution could create tensions between new restrictions imposed by the market construct and the goal of retaining and expanding participation. Detailed stakeholdering should flesh out and resolve those issues. After reviewing the historical documentation, he said he concluded that the unique configuration of Resolute's Thunder Bay facility was not subject to specific, dedicated stakeholder review, and that based on their

TP Member	Vote (In Favour)	Supportive Rationale
		interpretation of information available at the time Resolute understood that the DR Auction would not introduce any changes that would apply to that facility – the unique configuration at the facility was only flagged during the failed activation in 2017. Mr. Urukov said his duty as a Technical Panel member was to evaluate the proposed Market Rule based on his understanding of its intent, as laid out in Chapter 17, 18.1.1 and Chapter 11 of the Market Rules, and Market Manual 12, Section 6.3.2, which he said contained no explicit language covering Resolute’s specific case. But he expressed concern about whether Resolute’s proposal to allow “any metering configuration that was approved under DR1, DR2, DR3 or CBDR”, absent additional limitations, may allow behaviour that is contrary to the intent of the demand response program. While Resolute’s utilization might not change, nothing would prevent some other market participant from applying the DR1, DR2, DR3 or CBDR enabled configuration in a different way and producing unintended consequences. Allowing for use of two channels of two meters where one meter is embedded, without additional details, is insufficient to prevent such unintended outcomes, Mr. Urukov concluded. He said the IESO should craft rules that contemplate all configurations and applications, even if they don’t exist at the time of crafting, and therefore he could not support the rule amendment as proposed.
Sarah Griffiths	Yes	Ms. Griffiths said the question to be settled was how the Resolute configuration failed to translate into the Demand Response Auction, especially when only three direct contact customers and three aggregators were involved in the transition. On that issue, she said she supported Mr. Forsyth’s comments on IESO’s intent, and agreed with his recollection of the DR transition process, in which she was also a participant. She noted that the IESO’s current capacity qualification process for the DRA was a best practice among electricity markets, and said it should remain in spite of the issue currently before the Panel. Ms. Griffiths supported the proposed Market Rule amendment, arguing that it would have limited impact on other resources and avert an approximately 50% de-rate of a market participant – an

TP Member	Vote (In Favour)	Supportive Rationale
		outcome that she said was not a business signal the IESO should want to send. She added that the IESO had an opportunity to put forward clear market rules on how resources would be measured in the change from the DRA to the TCA, and again during the development of the ICA, and had acknowledged the potential value in different metering configurations. How to create and gain access to that value should be a topic for discussion during upcoming consultations on competitive auction design, she said.
Jessica Savage	No	Ms. Savage reiterated the IESO's position that the proposed amendment would have an adverse impact on the reliable, efficient operation of the IESO grid and introduce inconsistency in the treatment of participants in IESO-administered markets.

The Chair said lessons learned from the process would be an agenda topic at a future Technical Panel meeting.

The Chair said the deliberation on the proposed Market Rule amendment had been very challenging for all concerned, commended Panel members for their consideration of the topic, thanked Resolute for its participation in the process, and advised that the matter would be on the agenda for the June 12 Board meeting. Mr. Vegh thanked the Panel for its consideration and deliberations on the issue.

The meeting adjourned at 10:35 AM.

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Memorandum

To: Technical Panel
From: Robert Doyle
Date: April 30, 2019
Re: MR-00437: Demand Response – Registration and Metering Requirements

At its meeting on April 16, 2019, the Technical Panel agreed to hold a Technical Panel meeting on May 2 to:

- address the outstanding questions from Technical Panel members; and
- review any stakeholder feedback prior to conducting the Technical Panel vote on the amendment.

Following the April 16 Technical Panel meeting, IESO staff and Resolute confirmed the outstanding information with the Technical Panel by email. Those submissions from the IESO and Resolute are also posted on the Technical Panel [webpage](#).

Also included in the Resolute package are supplemental answers to questions which Resolute has advised have been asked in separate discussions with individual Technical Panel members. The IESO was not aware of nor did it participate in those specific discussions.

The IESO's position continues to be that matters such as Resolute's registration in the Demand Response Auction are part of the subject of the ongoing dispute between Resolute and the IESO, rather than as part of the Technical Panel's consideration of this market rule amendment proposal. While the IESO does not expect any additional submissions to be presented by Resolute or IESO staff at the May 2 meeting, the IESO can provide further clarification on the supplemental questions if requested by Technical Panel members.

The Resolute rule amendment was posted for stakeholder comment from April 16 - 26. No additional stakeholder comments were received.

Panel Action and Next Steps

Once the Technical Panel has discussed the responses to the outstanding information requests, the IESO recommends that the Technical Panel proceeds with a vote to recommend or not recommend the amendment proposal to the IESO Board of Directors for consideration at its June 12, 2019 meeting. Each Technical Panel member's vote will be recorded and each member will have the opportunity to provide rationale to support the position a TP member has taken in

the vote, including a summary of any objections in accordance with the Market Rules, Chapter 4, section 4.3.14.5.

As discussed at the April 16, 2019 meeting, the IESO will not be supporting Resolute's proposal. The IESO believes that the proposed amendment would have an adverse impact on the IESO's reliable and efficient operation of the IESO-controlled grid and would introduce inconsistency in the manner in which participants are treated in the IESO-administered markets.

/rd

IESO Responses to Questions from April 16 TP meeting

- 1. Ms. Griffiths asked how many other participants would be covered under the Resolute proposed rule that aren't currently able to participate?**

In the DR2, DR3, and CBDR programs, only five participants were directly connected to the IESO-controlled grid (ICG) while all others were distribution-connected and served by aggregators. Of these five directly connected facilities, two have deregistered from the DR program prior to CBDR and the remaining three non-dispatchable load facilities continue to participate in the demand response auction (DRA) as HDR resources. Resolute is currently the only non-dispatchable load facility with behind-the-meter generation who participated in previous DR programs and is participating in the DRA.

However, a consequence of the proposed market rules change is that load facilities with behind-the-meter generators could begin to avail themselves of new ways to participate in the DRA, resulting in the issues of consistency, reliability and efficiency, as outlined by the IESO in its April 2nd submissions.

For example, participants with behind-the-meter generators could claim higher DR capacity in the DRA (and receive correspondingly higher availability payments) without any actual commensurate increase in demand response reduction capability at the ICG. The IESO does not support this approach because ratepayers would be paying for something they are not getting if a DR resource with a capacity obligation to deliver DR reductions at the ICG only provided a fraction of that response to the ICG.

The IESO is aware that there are other market participants who have behind-the-meter generation facilities. Some of these participants may elect to offer in the DRA differently or register their resources differently, in order to benefit from Resolute's proposed market rules change. The IESO cannot forecast the number of such participants, but objects to the design changes entailed by the amendment, for the reasons stated above.

- 2. Mr. Bieler asked whether any other market participants had failed their activations, and whether this was the first of what could become a domino effect if other market participants were called to activate a demand response and failed.**

The IESO has been relying on test activations to verify whether HDR resources can deliver their respective capacity obligations when called upon by the IESO. Other market participants have failed their test activations (from an April 25th DRWG presentation, about 58% of hourly DR resources failed to successfully deliver load reduction up to their capacity obligation and follow IESO's dispatch instructions). However, as indicated by the response to question 1 above, Resolute is the only HDR resource that has failed a DR test activation and disputes that failure based on their misunderstanding of the DRA rules around metering configurations.

Additional Responses to Information Requests from Technical Panel Members

1. At the April 17, 2019 meeting, Mr. Urukov asked Resolute to comment on the feasibility of Resolute registering its generator separately

Answer: The generator at the Thunder Bay Pulp and Paper mill is embedded into the operations of the mill. It provides power to five different loads in the mill, and as such there is no way to carve it out of the operation using one meter and one registration. The way the mill has currently registered the site including the generator for the various programs was done in consultation with the IESO and best reflects the physical assets at the mill (current dispute notwithstanding).

2. *Follow up question from a technical panel member:* Even if staff did depart from the original intention of the market rules, can the Technical Panel fix this or are its “hands tied”?

Answer: No. The Technical Panel’s hands are not tied.

Resolute’s proposal is to reinstate the original intention of the DRA market rules so that it is consistent with the design that was initially proposed to the Technical Panel and to market participants. This is fully aligned with the Technical Panel’s Terms of Reference, which the IESO described as follows:

The Panel’s role within the market rule amendment process is to provide the IESO Board with advice on proposed market rule amendments for consideration by the IESO Board. **This advice helps the IESO ensure that the technical writing of the proposed rule amendment reflects a design that has been established through other engagement discussions and provides a proper fit within the context of other market rules.**

The IESO’s terms of Reference are attached as Schedule 1.

3. *Follow up question from a technical panel member:* At the April 16, 2019 meeting, IESO counsel stated that the market rules and the market manuals specifically state that baseline load must be measured at the IESO-controlled grid. Do the market rules or market manuals say this?

Answer: No. **There are no market rules that state that baseline load must be measured at the IESO-controlled grid.** The market rules are unchanged in all material respects from the market rules in place during the CBDR program, which IESO staff acknowledges facilitated Resolute’s metering configuration.

If anything, the IESO represented that it would take a broader approach under the DRA to demand response eligibility than was the case under the OPA’s demand response program. It stated the following:

“The IESO’s definition of demand response is inclusive of the demand response definition used by the Ministry of Energy and the OPA. However, **the IESO’s definition is intentionally broader to allow the utilization of DR to provide a wider range of services to the electricity market over time.**”

This is reflective of the IESO’s mandate in the LTEP to ‘...evolve existing DR programs and introduce new DR initiatives.’¹

Further, although market manuals cannot affect market participants’ substantive rights nor can market rules be substantively changed by market manuals, **no market manual provisions state that baseline load must be measured at the IESO-controlled grid for a resource like Resolute.**

Specifically:

There is no requirement in the market manuals that baseline load be measured at the IESO-controlled grid:

Market manual provisions regarding how baseline load is measured in the DRA are found in market manual 12 (Demand Response Auction, hereinafter the “DRA Manual”) and market manual 5.5; specific excerpts are in the footnotes below.²

Nowhere in the DRA Manual do the words “IESO-controlled grid” or “transmission system” even appear.

In market manual 5.5 (Physical Markets Settlement Statements), the words “transmission system” do not appear. The words “IESO-controlled grid” appear on 22 different occasions in relation to other programs but not in section 1.6.26, which is the only section in market manual 5.5 regarding the DRA and which describes how DRA baselines are measured. This illustrates that the exclusion of the term “IESO-controlled grid” from this section has to be given meaning, as it is otherwise referenced when intended.

¹ DR Auction Market Design, Stakeholder Feedback, February 12, 2015 (emphasis added). See also Schedule 2, which includes the following materials:

- IESO, Market Rule Submission, Demand Response Auctions – Participant Authorization & Facility Registration, Version 5, p. 2 (MR-00416-R00) (See Tab A)
- Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 2 (See Tab B);
- Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 3 (See Tab B);
- Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 7 (See Tab B); and
- Demand Response Auctions – Overview, Presentation to Technical Panel, June 2, 2015.p. 8 (See Tab C).

² At page 22, market manual 12 states as follows:

“Randomized Control Trial Baseline Methodology

For HDR resources associated with either virtual or physical C&I contributors, performance is evaluated using a historical baseline (as described in “Market Manual 5, Part 5.5: Physical Markets Settlement Statements”).”

At page 49, Market Manual 5, Part 5.5 states:

1.6.26.3.1 Hourly Demand Response (HDR) Baselines

“Due to how HDR resources participate and deliver into the energy market, baselines are required to determine settlements for each HDR resource when they are activated to provide demand response. A baseline is an approximation of a resource’s consumption profile that is used to estimate what the resource would have been consuming had a DR activation not taken place. For C&I HDRs, it is calculated by using the measurement data from historical period that meet the criteria of suitable business days (refer to Standard Baseline: High 15 of 20 with in-day adjustment below).

In its representations to the Technical Panel, IESO staff also asserted that “revenue meters” mean “meters connected to the IESO-controlled grid”. However, there is no basis for this in the market rules, manuals or IESO staff representations to the Technical Panel establishing the DRA.

Revenue meters are defined in Chapter 11 of the Market Rules as “a meter that is the designated source of metering data to be used by the IESO for settlement purposes in accordance with the VEE process”³. Not all revenue meters are connected to the IESO-controlled grid.

The two meters which Resolute has always and proposes to continue to use to measure DR capacity are revenue grade meters which the IESO can see and has used for demand response settlement prior to the DRA. There are no market rules or market manual provisions which prohibit the use of these two meters to demonstrate DRA capacity.

To conclude, there are no provisions which state that baseline load must be measured at a connection point with the IESO-controlled grid.

Embedded loads can be revenue metered by the IESO (not only LDCs) for the DRA, and IESO can use measurement data without an LDC involved:

In this amendment submission process, IESO staff implies that embedded load facilities participating in DRA are only revenue metered by LDCs.⁴ In fact, the market manual provisions regarding the DRA make it clear that embedded load facilities can be revenue metered by the IESO to satisfy a DRA obligation. Specifically, Market Manual 1, Part 1.2: Facility Registration, Maintenance, and De-registration states as follow at page 41:

6. Demand Response Auction

6.1 Registration Requirements [...]

“The demand response market participants (DRMP) providing demand response capacity with transmission connected load facilities **or with embedded load facilities that are revenue metered by the IESO** must register their resources as hourly demand response or as dispatchable loads (for example, a non-dispatchable load could be registered as hourly demand response), and submit the demand response capacity per resource at least three months prior to the beginning of the commitment period.”

In other words, **DRA baseline load can be measured by an IESO revenue meter regardless of where that meter is located.**

Moreover, when IESO staff proposed the DRA to the Technical Panel in 2015, staff proposed an amendment to Chapter 9 of the market rules to allow the IESO to use measurement data which is not from a registered wholesale meter to determine settlement amounts related to DR capacity obligations.⁵

³ Ch 11. Also per Ch 11, *VEE process* means the process described in Chapter 9 and used to validate, estimate and edit raw metering data to produce final metering data or to replicate missing metering data.

⁴ IESO staff stated that “physical contributors are non-dispatchable load facilities which are IESO revenue metered and virtual contributors are distribution-connected load facilities which are LDC-revenue metered” See IESO “Response information to the Technical Panel regarding the Market Rule Amendment Submission initiated by Resolute and discussed March 5, 2019” section G, question 1.

⁵ Specifically, the IESO stated as follows when amending Chapter 9 for the DRA (see full excerpt attached as Schedule 3):
“Section 2: Settlement Data Collection and Management DR Measurement Data:

This amendment was accepted. The IESO therefore expanded, for the DRA, the types of meters that it can use to settle DR obligations and made it clear that the IESO could itself (i.e., without an LDC⁶) use measurement data “to enable the IESO to determine compliance with a DR capacity obligation.”

-
4. *Follow up question from a technical panel member:* Provide a chronology of Resolute’s exchanges with the IESO on its registration.

Answer: Please see attached at Schedule 4.

-
5. *Follow up question from a technical panel member:* Provide a complete set of the Market Rules relating to the DRA as approved by the Technical Panel.

Answer: Please see attached at Schedule 5.

Currently the market rules only permit a registered wholesale meter to be used for determining settlement amounts, with some limited exceptions. Not all HDR resources will have registered wholesale meters that meet IESO standards, and meeting the existing wholesale metering requirements of Chapter 6 of the market rules would be a significant barrier to entry into the IESO-administered markets.

In those instances where an HDR resource does not have a registered wholesale meter, they will be obligated to submit measurement data to enable the IESO to determine compliance with a DR capacity obligation.

It is proposed to amend section 2.1 “Metering and Metering Responsibilities” of Chapter 9 of the market rules as follows:

- Insert sub-section 2.1.1A.6 to allow the IESO to determine settlement amounts related to DR capacity obligations on the basis of measurement data submitted to the IESO which may not be from a registered wholesale meter.”

⁶ Staff’s amendment proposal and rule amendments, which were approved by the Technical Panel on September 22, 2015 and approved by the IESO Board in October 22, 2015, makes no mention of LDCs. See Schedule 3 attached.

Schedule 1

Technical Panel to the IESO Board of Directors

Terms of Reference

November 11, 2016

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Technical Panel Terms of Reference

1. INTRODUCTION

The *Electricity Act, 1998*, as amended, requires the IESO to establish one or more processes by which consumers, distributors, generators, transmitters and other persons who have an interest in the electricity industry may provide advice and recommendations for consideration by the IESO. The IESO Board of Directors (IESO Board) has established this Technical Panel (the Panel) as part of its stakeholder engagement processes.

In accordance with the Governance and Structure By-Law and the Market Rules, the Technical Panel was formed in 2003 to review amendments to the Market Rules for Ontario's electricity market, and as requested, advise the IESO Board of Directors on specific technical issues relating to the operation of the IESO-administrated market.

These terms of reference are intended to interact with the IESO's engagement principles and processes, provide pragmatic guidelines for the Panel and assist it in providing advice and recommendations to the IESO Board. The Chair of the Panel will consult with Panel members, in accordance with Section 9 herein, on any proposed amendments to these Terms of Reference and report the Panel's advice back to the IESO Board.

The IESO has developed a stakeholder engagement process with the goal to provide individuals and organizations with the opportunity and forum to provide input and feedback about proposed decisions or Market Rule changes that affect their business. The IESO's stakeholder engagement process is designed to promote transparency, efficiency and consistency. The IESO Engagement process and principles have become integral to the IESO's decision-making process.

2. PURPOSE OF THE PANEL

2.1. Purpose

The Panel is a forum of individuals to provide advice and recommendations directly to the IESO Board on market rule amendments to ensure that the rule language meets the final design intent of the proposed change.

2.2. Relationship to other IESO Engagement Mechanisms and Processes

2.2.1. The IESO will utilize the Technical Panel process in conjunction with all the engagement mechanisms and processes established by the IESO without duplication or overlap including:

2.2.1.1. Policy level advice - The IESO Board looks to the Stakeholder Advisory Committee (SAC) to provide policy level advice on ideas and initiatives for change brought forward by the IESO or other parties.

2.2.1.2. Stakeholder engagement initiative (design) - IESO engagement initiatives, working groups and committees seek input and advice from stakeholders and other public representatives at a more detailed level. This advice helps inform the rationale and process for engagement.

2.2.1.3. Market rule amendments (Technical Panel) - The Panel's role within the market rule amendment process is to provide the IESO Board with advice on proposed market rule amendments for consideration by the IESO Board. This advice helps the IESO ensure that the technical writing of the proposed rule amendment reflects a design that has been established through other engagement discussions and provides a proper fit within the context of other market rules.

The IESO will inform Panel members of other engagement discussions on matters that may potentially lead to market rule amendments. Panel members are encouraged to participate directly in other IESO engagement processes as they deem appropriate.

3. DUTIES OF THE PANEL

3.1. Duties

The duties of the Panel members are to review amendments to the market rules on an on-going basis and advise the IESO Board on such specific technical issues as may be referred to the Technical Panel. In exercising its duties, the Panel shall comply with all applicable provisions of the market rules themselves.

3.2. Review Market Rule Amendments

The Panel will review and provide advice on all market rule amendments in accordance with chapter 3, section 4 of the market rules within the following three stages:

3.2.1. Market Rule Amendment Submission for Consideration

Proposed market rule amendments that have undergone proposed market design changes through an IESO established engagement initiative or process will be deemed to have been considered for consideration through the engagement discussions. The IESO will present that the engagement initiative reflects that an open, two-way dialogue in accordance with the IESO Engagement Principles was conducted with the public.

Upon reviewing a market rule amendment submission that has not included a formal engagement initiative, the Panel may determine (by a majority vote) that the amendment warrants further consideration prior to proceeding to review the rule language in more detail. If the Panel determines (by a majority vote) that the proposed rule amendment does not warrant further consideration, a report stating the reasons is presented to the IESO Board. In either instance, the IESO will provide the necessary background and rationale on the introduction of each item to the Panel for consideration. The IESO will propose a priority and timeline for each market rule amendment in order to maximize efficiency of the Panel's agenda and the priorities of the IESO.

3.2.2. Review Draft Market Rule

The Panel will review the detailed market rule amendment drafted by IESO staff along with any rationale provided through discussions under a formal engagement initiative that helped shape the design leading to the rule amendment. The Panel Chair will invite any further comments from observers in attendance at the meeting. Taking into consideration input from observers and the Panel, the Chair will initiate a vote to determine if the market rule amendment is ready for broader stakeholder input. A majority vote of the Panel will recommend that the draft proposal is posted and available for public inspection in accordance with the Section 33 of the *Electricity Act*. The IESO and Panel members may circulate the posted draft proposal for review and comment as they see fit.

3.2.3. Advice to IESO Board

The IESO will review and post all feedback received from the broader stakeholder community and publish a response to illustrate how that feedback was considered to shape the final draft market rule amendment for review by the Panel. With its final review, each Panel member will vote whether they are in favour of or opposed to the proposed rule amendment along with their reason/rationale for their stated position. The Panel's vote will be communicated to the IESO Board along with each member's rationale (if any) on their stated position of the proposed market rule amendment recommendation. Panel members will have an opportunity to review and approve a written version of their rationale to the IESO Board and be provided a final version of the Chair's memorandum to the Board on the matter.

The Chair will initiate a vote in all applicable stages and invite all members to participate. Panel members may exercise their option to seek additional information in order to cast a vote or may choose to abstain from a vote with reason. The Chair will not participate in the vote.

4. COMPOSITION OF THE PANEL

4.1. Panel Members

Panel to consist of one Chair, one IESO member and a minimum of 10 and a maximum of 12 members representing seven (7) core market participant members along with a minimum of three (3) and a maximum of five (5) other appointed members.

4.1.1. Seven core members representing market participants in the following categories:

4.1.1.1. Generators (2)

4.1.1.2. Transmitters (1)

4.1.1.3. Distributors (1)

4.1.1.4. Retailers or wholesalers (1)

4.1.1.5. Consumers (1)

4.1.1.6. One other market participant (1) (examples of market participant might include demand response or other future categories not yet defined)

4.1.2. A minimum of three and a maximum of five members appointed among the following three constituencies. The representation within each constituency is subject to change by the

IESO Board in order to accommodate the changing needs of Ontario's electricity sector and the impact these changes may have on the development of market rules. Each constituency represents a group of individuals who have a common/shared interest and stake in market rule amendments.

4.1.2.1. Person(s) representing the constituency of generators of electricity

Examples of representatives in this constituency might include generation by gas, nuclear, wind, solar, hydro-electric

4.1.2.2. Person(s) representing the constituency of consumers of electricity

Examples of representatives in this constituency might include residential, embedded retail/industrial

4.1.2.3. Person(s) representing the constituency of energy related businesses and service

Examples of representatives in this constituency might include electricity traders/wholesalers, aggregators, innovation, research, smart grid, gas utility, conservation-related services, financial.

4.1.3. IESO Member

The IESO will have one member on the Panel.

4.1.4. At its discretion, the Board may appoint one or more ad hoc members for specified terms.

4.2. Nomination and Appointment of Committee Members

4.2.1. Appointments to fill any vacancies on the Panel will be made by the IESO Board through a nomination process.

4.2.1.1. In respect of a vacancy for the IESO member of the Panel, the IESO Chief Executive Officer will nominate a qualified employee to fill such vacancy.

4.2.1.2. In respect of all other Panel member vacancies, parties having an interest in IESO activities may nominate qualified persons to be Panel members, from which the IESO Board will appoint replacement members. Self-nominations will also be permitted.

4.2.2. The IESO Board may seek additional nominees to expand the slate of candidates for a particular constituency.

4.2.3. In the case where no qualified nominations have been submitted to replace a member that contributes to the views of that constituency on the Panel, the Board will consider a nomination from a former Panel member whose term has expired.

4.2.4. At the IESO Board's discretion, preference may be given to licensed market participants or other registered participants of the IESO.

4.3. Qualifications of Members of the Panel

4.3.1. Nominees to the Panel should be senior members of their respective organization who are committed to present their views on behalf of their constituency on the consequences and effects of any market rule amendments and to participate on the Panel for its stated purposes.

4.3.2. The status of a Panel member may be impacted by a change in their employment or affiliation such that they are no longer in a role that supports their participation in the Panel.

4.3.3. Nominees should have:

4.3.3.1. A level of technical or commercial knowledge and expertise in the operation of power systems and electricity markets that is acceptable to the Board

4.3.3.2. A breadth of knowledge about both Ontario's electricity sector and the constituency they represent.

4.3.3.3. An understanding of the market rules for Ontario's electricity market.

4.3.4. Organizations may not have more than one representative as a member of the Panel at any one time.

4.4. Panel Membership Term

4.4.1. Other than the IESO Panel member, Panel members will be appointed for three year terms and may serve up to six consecutive years. Membership terms will be coordinated and staggered so as to provide continuity to the Panel. Notwithstanding the forgoing, the Board may extend the term of the current Panel member:

4.4.1.1. for the purpose of implementing staggered membership terms; and/or

4.4.1.2. in order to ensure adequate representation of a particular constituency, recognizing that the individual's participation on the Panel is required to continue to provide a well-balanced representation.

4.4.2. When a new member is appointed mid-term due to the resignation of a current member, then the new member will complete the term of their predecessor and be eligible for appointment for an additional two terms.

4.4.3. During the transition of existing Panel members under these terms of reference, Panel members will maintain their current standing. The Board may in these instances extend existing members to align the expiry of terms as outlined in section 4.4.1 above.

4.5. Roles and Expectations of Committee Members

4.5.1. The role of the Panel member is to advise the IESO Board.

4.5.2. Members should attend meetings and actively participate in discussions.

4.5.3. Members are expected to bring their own views as a representative of their constituency.

4.5.4. Members are expected to devote the necessary time and effort to prepare for meetings and contribute to discussions at the meeting. If unable to attend, feedback should be submitted in writing to the Secretary before or directly following the meeting.

4.5.5. Each member of the Panel shall conduct himself or herself honestly, fairly, ethically and with integrity and be respectful of the public, IESO staff and each other.

4.5.6. The Chair of the Panel will play a leadership role in order to provide effective governance, administration and facilitation of all Panel meetings. Administrative support to act as Secretary to the Committee will be provided by the IESO.

4.5.6.1. The Chair of the Panel is the Chief Executive Officer of the IESO or his or her delegate.

4.5.6.2. The Chair will be responsible for the conduct of all matters before the Panel.

4.5.6.3. The Chair will not have a voting position on the Panel.

5. ORGANIZATION AND ADMINISTRATION OF MEETINGS OF THE COMMITTEE

5.1. Number of Meetings

5.1.1. Up to eight (8) meetings of the Panel will be pre-scheduled to occur during a calendar year. If it is determined that a meeting is not required or must be re-scheduled, members will be notified in advance of the scheduled meeting.

5.1.2. The Chair may call additional meetings as required including in-camera sessions of the Panel in support of Panel activities.

5.1.3. In-camera discussions may be called by the Chair, or any member of the Panel, from time-to-time. These discussions are reserved for Panel members only and will not be open to the public.

5.1.4. The Secretary shall endeavour to ensure meeting agendas and related materials are available at least one week in advance of each meeting and posted on the IESO website.

5.1.5. The IESO shall endeavour to provide education/information materials and/or presentations including regular updates on other relevant engagement initiatives in order to provide the necessary background to all future market rule amendments expected to be reviewed by the Panel.

5.2. Quorum

5.2.1. The quorum for meetings of the Panel consists of a majority of the members.

5.3. Meeting Authority and Normal Order of Business

5.3.1. The Chair or his or her delegate shall preside over meetings of the Panel.

5.3.2. All Panel meetings will be open to any individuals wishing to attend the meeting in person or by teleconference. The IESO will make efforts to communicate TP meeting agendas and materials to the broader public community.

5.4. Communication with the IESO Board

5.4.1. One annual joint meeting of the Panel and the IESO Board will be scheduled to provide an opportunity to communicate and illustrate how Panel member advice is shaping the Board's direction of market rule amendments.

- 5.4.2. Panel member advice, when provided, will be delivered to the IESO Board in writing with each market rule amendment recommendation by the Panel. Members will have an opportunity to review and approve this advice prior to the submission of the recommendation to the IESO Board by the Chair of the Panel and be provided a final version of the Chair's memorandum to the Board on the matter.

6. FINALIZATION OF MEETING MINUTES

- 6.1.1. The Secretary shall prepare meeting minutes at the direction of the Chair. The Secretary will endeavour to distribute the draft meeting minutes, including any accompanying written submissions, to all Committee members for review in advance of the next scheduled meeting.
- 6.1.2. At the next meeting, the Chair will invite Panel members to provide any comments on the draft minutes. Taking comments into consideration, the Chair will invite a vote from the Panel to approve and adopt the final minutes.
- 6.1.3. The Secretary will then publish the final meeting minutes and related written materials and post on the IESO website.

7. REMUNERATION OF MEMBERS OF THE PANEL

- 7.1.1. Notwithstanding where a Panel member may choose not to accept remuneration, each Committee member, other than the IESO member and Chair, shall be entitled to receive an annual retainer of \$3,500 plus a remuneration of \$175/hour to a maximum daily rate of \$850 for attendance at Panel meetings. In instances where a Panel member lives outside of the GTA and is not reimbursed for their time by other means a member can, upon their request, apply for a minimum of three hours remuneration for each meeting attended in person to accommodate travel time.
- 7.1.2. Members residing outside of the Greater Toronto Area are entitled to be reimbursed for reasonable travel and accommodation expenses they may incur in attending meetings. (Please see section 9 for Travel and Accommodation Expenses.)
- 7.1.3. Eligible expenses are required to be submitted within 30 calendar days of the Committee meeting, and will be processed upon receipt, in accordance with Committee member remuneration.

8. TRAVEL AND ACCOMMODATION EXPENSES

- 8.1.1. Each Panel member is requested to adhere to the [Government of Ontario's Travel, Meal and Hospitality Directive \(the "Directive"\)](#) to the best of their ability. The Directive sets out the reimbursement for expenses related to travel and meals for Panel members. Members are eligible for the government rates for accommodation when travelling. Refer to the [Accommodation Search Page](#) for assistance in locating accommodation to support the Directive.

9. REVIEW, UPDATE AND EVALUATE

- 9.1.1. These terms of reference are not exhaustive and the Panel may encounter circumstances not covered in this document. In these instances, the Chair of the Panel will consult with the Chair of the IESO Board and to use his or her best judgment as to how best to address such circumstances.
- 9.1.2. In cases where updates to the terms of reference are being considered, the Panel will be consulted in the following three stages:
 - 9.1.2.1. Review and provide input on proposed changes and vote to post the proposed changes for broader stakeholder input;
 - 9.1.2.2. The IESO will review and post all feedback received from the broader stakeholder community and publish a response to illustrate how that feedback was considered to shape the final draft changes for review by the Panel.
 - 9.1.2.3. With its final review, each Panel member will vote whether they are in favour of or opposed to the proposed changes along with their reason/rationale for their stated position. The Panel's vote will be communicated to the IESO Board along with each member's rationale (if any) on their stated position. Panel members will have an opportunity to review and approve a written version of their rationale to the IESO Board and be provided a final version of the Chair's memorandum to the Board on the matter.
- 9.1.3. Each year, the IESO will invite Panel members to submit their views on the effectiveness of the Panel and its mandate.

Schedule 2

Tab A



Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00416-R00		
Subject:	Demand Response Auctions		
Title:	Demand Response Auctions – Participant Authorization & Facility Registration		
Nature of Proposal:	☒ Alteration	☐ Deletion	☒ Addition
Chapters:	2, 7 & 11	Appendix:	2.2
Sections:	Chapter 2, section 2, 3, Chapter 7 section 18 (new), 19 (new), Chapter 11 definitions		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review	May 26, 2015
2.0	Publish for Stakeholder Review and Comment	June 4, 2015
3.0	Submitted for Technical Panel Vote	June 30, 2015
4.0	Recommended by Technical Panel; Submitted for IESO Board Approval	July 7, 2015
5.0	Approved by IESO Board	August 26, 2015
Approved Amendment Publication Date:		August 27, 2015
Approved Amendment Effective Date:		September 18, 2015

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

The IESO proposes to amend the market rules in order to implement a Demand Response Auction to allow for the future competitive procurement and development of demand response in Ontario.

Specifically, this amendment proposal will:

- Create a new market participant class, “demand response auction participant;”
- Specify the requirements to participate in a demand response auction, which include providing a demand response auction deposit;
- Specify that demand response auction participants who obtain a demand response capacity obligation through an auction, must become a demand response market participant;
- Provide details and eligibility for the delivery of demand response capacity obligations; and
- Specify that in order to deliver on a demand response capacity obligation, demand response market participants must satisfy the registration requirements as either a dispatchable load, or the requirements of an hourly demand response resource.

This proposal is based on the Demand Response Auction stakeholder engagement.

Further information on the Demand Response Auction stakeholder engagement can be found on the IESO’s website at:

<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Demand-Response-Auction.aspx>

Background

In order to participate in a demand response auction, existing market participants or new applicants must become authorized as a demand response auction participant. This market participant type will allow organizations to become authorized with the IESO for the purposes of participating in the auction and to be bound by the applicable IESO market rules. There are additional authorization and facility registration requirements for the IESO physical market for those auction participants that obtain a demand response capacity obligation from the auction.

In developing the demand response auction, the approach has been to facilitate participation by current demand response providers, potential new participants and new technologies. Authorization for demand response auctions is similar to the authorization for the transmission rights markets where a financial market participant is only required to execute a participation agreement and file a deposit with the IESO prior to auction participation.

Participants that are successful through a demand response auction (i.e. receive a demand response capacity obligation) will be required to register their facilities with the IESO and deliver the demand

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

response capacity obligation as an hourly demand response resource or as a dispatchable load.

Discussion

Chapter 2 – New Class of Market Participant

It is proposed to add a new class of market participant in the market rules solely for participation in demand response auctions. This addition includes:

- Chapter 2, section 2.1.1.10: New market participant class – “demand response auction participant”;
- Chapter 11, definitions: A new defined term for “demand response auction participant,” which means a person authorized to participate only in a demand response auction;
 - A new defined term for “demand response auction” will also be included in Chapter 11 to mean the auction operated by the IESO to procure demand response capacity.

A person wishing to submit offers into a demand response auction would apply to be authorized as a “demand response auction participant.” This would require application and authorization through the IESO’s market registration process and payment of the applicable application fees. The proposed definition of demand response auction participant will allow facilities able to provide demand response capacity to take part in the auction prior to completing facility registration with the IESO.

Further to the application for authorization of demand response auction participants, the IESO proposes to exclude the obligation under section 3.1.2.2 for applicants to submit either the federal harmonized value-added tax system registration number or proof of their exemption to the payment. This exclusion further aligns a demand response auction participant with the obligations of financial market participants.

Appendix 2.2 –Communication Requirements

In the Capacity Based Demand Response market rule amendments (MR-00408-R00), the IESO obligated demand response market participants to maintain a telephone and email address in order to ensure communication is maintained between the IESO and those participating in the capacity based demand response program. With the expansion of the definition a demand response market participant to include a market participant with a demand response capacity obligation, the IESO proposes to amend section 1.1.6A of Appendix 2.2 to limit the applicability of the section to demand response market participants that are only participating in the capacity based demand response program.

The IESO proposes the following amendments to sections 1.3.1 and 1.4.1 of Appendix 2.2 which details the obligations to install and maintain a dispatch workstation and a participant workstation.

Dispatch Workstations (section 1.3.1):

- Clarify that demand response market participants participating only in the capacity based demand response program or having a demand response capacity obligation delivered through an hourly demand response resource will be excluded from the obligation to install and maintain a dispatch workstation; and
- Exclude the obligation to install and maintain a dispatch workstation for demand response auction participants.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Participant Workstation (section 1.4.1):

- Clarify that demand response market participants participating only in the capacity based demand response program will be excluded from the obligation to install and maintain a participant workstation.

Demand response auction participants will be required to install and maintain a participant workstation in accordance with section 1.4.1 of Appendix 2.2 in order to communicate with the IESO and submit offers during their participation in a demand response auction. The details and requirements for participant workstations are outlined in the [Participant Technical Reference Manual](#).

Chapter 7

It is proposed to insert new section 18, “Demand Response Auctions” into chapter 7 of the market rules as follows:

Section 18.1 – Purpose of Demand Response Auctions

- Insert section 18.1.1 to specify that demand response auctions will be for the purpose of procuring demand response capacity in Ontario through a competitive auction process.
- Insert section 18.1.2 to obligate the IESO to publish the target amount of demand response capacity that will be procured through each demand response auction, the process will be detailed in the applicable market manual.

Section 18.2 – Participation in Demand Response Auctions

- Insert section 18.2.1 to specify that prerequisites for participation in a demand response auction are to become authorized as a demand response auction participant, submit to the IESO the amount of demand response capacity a participant is willing to provide and no less than five business days prior to the date which a demand response auction is to be conducted a participant must provide the IESO with a demand response auction deposit.
- Insert section 18.2.2 to specify chapters of the market rules that will **not** apply to demand response auction participants in order to avoid obligations in the market rules which should not be applicable to those participating only in a demand response auction:
 - Chapters 4, 5, and 6,
 - Chapter 7, other than this section 18
 - Chapters 8 and 10

All other market rules will apply to demand response auction participants unless explicitly identified in this section 18.2.2. This provision is similar to existing section 4.8.5 of Chapter 8, which specifies the market rules that are not applicable to financial market participants.

- Insert section 18.2.3 to obligate demand response auction participants that have successfully obtained a demand response capacity obligation through the demand response auction to become authorized as a demand response market participant.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Section 18.3 – Calculation of Demand Response Auction Deposits

Section 18.3.1 specifies that the IESO will calculate a demand response auction participant's demand response auction deposit, based on the amount of demand response capacity the demand response auction participant specifies they intend to offer in the demand response auction.

Section 18.4 – Demand Response Auction Deposits

This section specifies the manner in which demand response market participants may satisfy their deposit obligation, and is consistent with the acceptable forms for letters of credit allowable under the existing demand response security requirements in section 5A of Chapter 2, as well as the allowable forms for TR's (i.e. letters of credit or cash deposits) under section 4.8 of Chapter 8.

- Inset section 18.4.1 to specify that a demand response auction deposit must be submitted as either an irrevocable commercial letter of credit or a cash deposit.
- Insert section 18.4.2 to specify that the standard and IESO required provisions for letters of credit in the IESO markets:
 - Must be issued subject to either The Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600 or The International Standby Practices 1998;
 - The IESO shall be named as beneficiary in each letter of credit, each letter of credit shall be irrevocable, and partial draws on any letter of credit shall not be prohibited;
 - The only conditions for the IESO to draw on the letter of credit shall be the delivery of a certificate of an officer of the IESO that the IESO is entitled to draw on the letter of credit the amount owing to the IESO as specified in the certificate, as of the date of delivery of the certificate;
 - The letter of credit shall either provide for automatic renewal (unless the issuing bank advises the IESO at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one year. If the demand response deposit is not renewed ten (10) business days before the expiry of the letter of credit the IESO is entitled at that time to payment of the full amount of the letter of credit, once drawn upon it will be treated as a demand response deposit in the form of cash; and
 - The demand response auction participant represents and warrants to the IESO that the issuance of the letter of credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the demand response auction participant.
- Insert section 18.4.3 to specify that authorization for a demand response auction participant will be limited to the requirements outlined in this section 18.2.1.1 to 18.2.1.3 if the applicant has not applied or is not participating in any other IESO administered market.

Section 19 – Demand Response Market Participants with Demand Response Capacity Obligations

This section will introduce the ways in which a demand response market participant can fulfill a demand response capacity obligation and will include the applicable eligibility requirements. It is proposed to insert new section 19 "Demand Response Market Participants with Demand Response

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Capacity Obligations” into Chapter 7 as follows:

Section 19.1 – Purpose

- Insert section 19.1.1 to detail the purpose of section 19, which is to provide the details on the delivery of demand response capacity obligations.
- Insert section 19.1.2 to allow the delivery of a demand response capacity obligation through participation as an hourly demand response resource or as a dispatchable load.

Section 19.2 – Eligibility Requirements for Hourly Demand Response with a Demand Response Capacity Obligation

- Insert section 19.2.1 to specify that a demand response market participant will be eligible to participate as an hourly demand response resource, provided that the participant:
 - 19.2.1.1 – Demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual;
 - 19.2.1.2 – Registers its facilities and demand response contributors in accordance with the applicable market manual. The participant shall not make subsequent changes to that facility without pre-authorization from the IESO;
 - 19.2.1.3 – Satisfies the connection assessment requirements in section 6 of Chapter 4, if a connection assessment is required by the IESO in accordance with the applicable market manual;
 - 19.2.1.4 – Provides the appropriate prudential support in accordance with section 5 of Chapter 2.
- Insert section 19.2.2 and 19.2.3 to specify that the IESO may refuse or remove a demand response market participant, temporarily or permanently, if its resource’s continued participation would negatively impact the reliable operation of the IESO-controlled grid.
- Insert section 19.2.4 to specify chapters of the market rules that will **not** apply to demand response market participants that are authorized to participate only with an hourly demand response resource, in order to avoid obligations in the market rules which should not be applicable:
 - Chapter 2, sections 5A and 8;
 - Chapters 5, 6, 8, 10;
 - Chapter 7, section 7.

All other market rules will apply to demand response market participants participating only in the hourly demand response program unless explicitly identified in this section 19.2.4. For clarity, on a resource basis, a demand response market participant that is participating both as an hourly demand response resource and as a wholesale consumer that is a non-dispatchable load, must continue to meet the obligations throughout the market rules for non-dispatchable loads. The above market rule “carve-outs” are similar to existing section 17.2.4 of Chapter 7, which specifies the Chapters and sections not applicable to demand response market participants who participate only in the capacity based demand response program.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- Insert section 19.2.5 to allow non-dispatchable loads with a demand response capacity obligation to participate as an hourly demand response resource, if the non-dispatchable load meets the eligibility requirements of proposed section 19.2, as well as continuing to meet the requirements of a wholesale consumer that is a non-dispatchable load.

Section 19.3 – Eligibility Requirements for Dispatchable Loads with a Demand Response Capacity Obligation

- Insert section 19.3.1 to specify that a demand response market participant will be eligible to participate as a dispatchable load to fulfill a demand response capacity obligation, provided that the participant:
 - 19.3.1.1 – Demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual;
 - 19.3.1.2 – is authorized as a wholesale consumer;
 - 19.3.1.3 – Registers its facilities in accordance with the wholesale consumer registration requirements for dispatchable loads. The participant shall not make subsequent changes to that facility without pre-authorization from the IESO;
 - 19.3.1.4 – Satisfies the connection assessment requirements in section 6 of Chapter 4, if a connection assessment is required by the IESO in accordance with the applicable market manual;
 - 19.3.1.5 – Provides the appropriate prudential support in accordance with section 5 of Chapter 2.
- Insert section 19.3.2 and 19.3.3 to specify that the IESO may refuse or remove a demand response market participant, temporarily or permanently, if its resource's continued participation would negatively impact the reliable operation of the IESO-controlled grid.

Chapter 11 – Defined Terms:

In addition to the new defined term “demand response auction participant,” the following new defined terms are required for the implementation of a demand response auction and for the delivery of a demand response capacity obligation:

- “demand response auction” means the auction operated by the IESO to procure demand response capacity, pursuant to section 18 of Chapter 7.
- “demand response auction deposit” means the deposit required to be made by a demand response auction participant pursuant to section 18 of Chapter 7 as a condition of participating in a demand response auction.
- “demand response capacity” means the expected quantity of load reduction a demand resource can provide during a specified availability window and commitment period of a demand response auction, and excludes energy transacted through the energy market.
- “demand response capacity obligation” means the amount of demand response capacity that a demand response market participant is obligated to provide during the applicable availability

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

window and commitment period after the completion of a demand response auction.

- “hourly demand response” means the proposed resource type described in section 19 of Chapter 7 for the delivery, on an hourly basis, of a demand response capacity obligation obtained through a demand response auction.

The IESO proposes to amend the definition of “demand response contributor” to include the delivery of a demand response capacity obligation with an hourly demand response resource. The current definition relates only to the delivery of a contracted monthly MW under the capacity based demand response program.

Furthermore the IESO proposes to amend the definition of “demand response market participant” in order to incorporate the delivery of demand response capacity obligations. In addition, the IESO will remove the obligation for a demand response market participant to be either a demand response aggregator or demand response direct participant which is not a requirement for all existing types of demand response participation.

PART 4 – PROPOSED AMENDMENT

Chapter 2

2. Classes of Market Participants

2.1.1 The following classes of persons may apply for authorization to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid*:

2.1.1.1 *generators;*

2.1.1.2 *distributors;*

2.1.1.3 *wholesale sellers;*

2.1.1.4 *wholesale consumers;*

2.1.1.5 *retailers;*

2.1.1.6 *transmitters;*

2.1.1.7 *financial market participants; and*

2.1.1.8 [Intentionally left blank – section deleted]

2.1.1.9 *demand response market participants; and*

2.1.1.10 *demand response auction participants.*

3. Application for Authorization

- 3.1.1 A person who wishes to be authorized by the *IESO* to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid* must file a completed *application for authorization to participate*.
- 3.1.2 The application for authorization to participate shall be accompanied by:
- 3.1.2.1 the non-refundable application fee established from time to time by the *IESO* to defray the costs of processing the application; and
- 3.1.2.2 unless the *application for authorization to participate* is submitted in respect of an applicant that is applying for authorization to participate in the *IESO-administered markets* solely as a *financial market participant* or a demand response auction participant, either:
- the federal harmonized value-added tax system registration number issued to the applicant by the Canada Customs and Revenue Agency; or
 - where the applicant is resident in Canada and is, by virtue of *applicable law*, not liable to pay the federal harmonized value-added tax under Part IX of the *Excise Tax Act* (Canada), such documentation as may be prescribed in the *Excise Tax Act* (Canada) or described in the policies of the Canada Customs and Revenue Agency to support the exemption from such liability to pay.

Appendix 2.2 – Technical Requirements: Voice Communication, Monitoring and Control, Workstations and Re-Classification of Facilities

- 1.1.6A Each *demand response market participant* participating in the capacity based demand response program shall provide to the *IESO* and maintain one commercially available telephone and electronic mail address for the purposes of communicating with the *IESO*.

1.3 Dispatch Workstations

- 1.3.1 Each *market participant* other than a *boundary entity* ~~or~~, a demand response auction participant, or a demand response market participant participating in either the capacity based demand response program or with a demand response

capacity obligation through an hourly demand response resource shall, for the purposes of:

- 1.3.1.1 the provision to the *IESO* of real-time information required by the *IESO* to direct the operations of the *IESO-controlled grid*;
- 1.3.1.2 if the person is or will be subject to dispatch by the *IESO*, the receipt of *dispatch instructions*; and
- 1.3.1.3 the exchange with the *IESO* of other information required to be submitted or received pursuant to Chapter 7 or Chapter 8, other than the submission, receipt of confirmation of and validation of *dispatch data*, *TR bids* or *TR offers* in the *TR market* and *physical bilateral contract data*,

provide, install and maintain a *dispatch workstation* that meets the specifications and other requirements set forth in the *participant technical reference manual* and that is configured to support communication with the real-time communication network channel or channels provided by the *IESO* in the manner described in the *participant technical reference manual*.

.....

1.4 Participant Workstations

- 1.4.1 Subject to section 1.6, each *market participant* other than a *demand response market participant* participating only in the capacity based demand response program shall, for the purposes of conducting secure communications or transactions with the *IESO* using *IESO*-supplied or approved software, provide, install and maintain a *participant workstation* that meets the specifications, definitions and other requirements set forth in the *participant technical reference manual*.
-

Chapter 7

18. Demand Response Auctions

18.1 Purpose of Demand Response Auctions

- 18.1.1 The demand response auction will procure demand response capacity through a competitive auction.

18.1.2 The *IESO* shall specify and *publish* a target capacity amount to be procured in each *demand response auction*, as specified in the applicable *market manual*.

18.2 Participation in Demand Response Auctions

18.2.1 No person may participate in a *demand response auction* nor receive a *demand response capacity obligation* unless that person has:

18.2.1.1 been authorized by the *IESO* as a *demand response auction participant* in accordance with section 3 of Chapter 2;

18.2.1.2 submitted and has been approved by the *IESO*, using forms and procedures as may be established by the *IESO* in the applicable *market manual*, the amount of *demand response capacity* that the *demand response auction participant* is willing to provide; and

18.2.1.3 no less than five *business days* prior to the date on which a *demand response auction* is to be conducted, provided to the *IESO* a *demand response auction deposit*, in one or both of the forms set forth in section 18.4.

18.2.2 The following provisions of the *market rules* shall not apply to a *demand response auction participant* that is authorized by the *IESO* to participate only in a *demand response auction*:

18.2.3.1 Chapters 4, 5, and 6;

18.2.3.2 Chapter 7 other than this section 18; and

18.2.3.3 Chapters 8 and 10.

18.2.3 A *demand response auction participant* who obtains a *demand response capacity obligation* through a *demand response auction* shall apply to become authorized by the *IESO* as a *demand response market participant* in accordance with section 3 of Chapter 2.

18.3 Calculation of Demand Response Auction Deposits

18.3.1 Upon receipt of a *demand response auction participant's demand response capacity* under section 18.2.1.2, the IESO shall determine for each *demand response auction participant*, a *demand response auction deposit* for a *demand response auction* as specified in the applicable *market manual*.

18.4 Demand Response Auction Deposits

18.4.1 A *demand response auction deposit* shall be in one or both of the following forms:

18.4.1.1 an irrevocable commercial letter of credit provided by a bank named in a Schedule to the *Bank Act*, S.C. 1991, c. 46; or

18.4.1.2 a cash deposit made with the IESO by or on behalf of the *demand response auction participant*.

18.4.2 Where all or part of a *demand response auction deposit* is in the form of a standby letter of credit, the following provisions shall apply:

18.4.2.1 the letter of credit shall provide that it is issued subject to either The Uniform Customs and Practice for Documentary Credits, 1993 Revision, ICE Publication No. 500 or The International Standby Practices 1998;

18.4.2.2 the IESO shall be named as beneficiary in the letter of credit, the letter of credit shall be irrevocable and partial draws on the letter of credit shall not be prohibited;

18.4.2.3 the only condition on the ability of the IESO to draw on the letter of credit shall be the delivery of a certificate of an officer of the IESO that a specified amount is owing by the *demand response auction participant* to the IESO and that, in accordance with the provisions of the *market rules*, the IESO is entitled to payment of that specified amount as of the date of delivery of the certificate;

18.4.2.4 the letter of credit shall either provide for automatic renewal (unless the issuing bank advises the IESO at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one (1) year. Where the IESO is advised that a letter of credit is not to be renewed or the term of the letter of credit is to expire, the *demand response auction participant* shall arrange for and deliver additional *demand response auction deposits* if the *demand response auction participant* intends to continue to participate in a *demand response auction*. If such additional *demand response auction deposits* are not received by the IESO ten (10) business days before the expiry of a letter of credit, the IESO shall be entitled as of that time to payment of the full face amount of the letter of credit which amount,

once drawn by the IESO, shall be treated as a demand response auction deposit in the form of cash; and

18.4.2.5 by including a letter of credit as part of a demand response auction deposit, the demand response auction participant represents and warrants to the IESO that the issuance of the letter of credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the demand response auction participant.

18.4.3 Notwithstanding any other provision of these market rules, a person that applies for authorization to participate in the demand response auction and that has not applied for authorization to participate, or is not participating, in any other IESO-administered market shall not be required to comply with any requirements for authorization other than those set forth in sections 18.2.1.1 to 18.2.1.3.

19. Demand Response Market Participants with Demand Response Capacity Obligations

19.1 Purpose

19.1.1 This section details the delivery of a demand response capacity obligation obtained through a demand response auction.

19.1.2 A demand response market participant who receives a demand response capacity obligation obtained through a demand response auction shall deliver into the IESO-administered market via resources registered as:

19.1.2.1 hourly demand response; or

19.1.2.2 a dispatchable load.

19.2 Eligibility Requirements for Hourly Demand Response Resources with Demand Response Capacity Obligations

19.2.1 A demand response market participant is eligible to participate as an hourly demand response resource provided that the demand response market participant:

19.2.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation obtained through a demand response auction, as specified in the applicable market manual;

- 19.2.1.2 registers its facilities and demand response contributors as applicable, to the satisfaction of the IESO, in accordance with the applicable market manual. The demand response market participant shall not modify, vary or amend in any material respect any of the features or specifications of any resource without first requesting IESO authorization and approval in accordance with the applicable market manual;
- 19.2.1.3 satisfies the connection assessment requirements in accordance with section 6 of Chapter 4, if required by the IESO, in accordance with the applicable market manual;
- 19.2.1.4 has provided prudential support in accordance with section 5 of Chapter 2.
- 19.2.2 The IESO may refuse participation of an hourly demand response resource by a demand response market participant if the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.
- 19.2.3 The IESO may remove a demand response market participant's hourly demand response resource from market participation if the resource's continued participation would negatively impact the reliable operation of the IESO-controlled grid. The IESO may temporarily remove a demand response market participant's hourly demand response resource from market participation if the conditions on the IESO-controlled grid are such that the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.
- 19.2.4 The following provisions of the market rules shall not apply to a demand response market participant that is authorized by the IESO to participate only with an hourly demand response resource and is not a wholesale consumer that is a non-dispatchable load:
- 19.2.4.1 Chapter 2, sections 5A and 8;
- 19.2.4.2 Chapters 5, 6, 8, 10; and
- 19.2.4.3 Chapter 7 section 7.
- 19.2.5 A wholesale consumer that is a non-dispatchable load may participate as an hourly demand response resource to fulfill a demand response capacity obligation, provided that the non-dispatchable load meets all the applicable eligibility requirements of this section 19.2, and the requirements in the market rules that are applicable to a wholesale consumer that is a non-dispatchable load.

19.3 Eligibility Requirements for Dispatchable Loads with a Demand Response Capacity Obligation

- 19.3.1 A demand response market participant is eligible to participate as a dispatchable load in satisfying its demand response capacity obligation, provided that the demand response market participant:
- 19.3.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation obtained through a demand response auction, as specified in the applicable market manual;
 - 19.3.1.2 is authorized as a wholesale consumer;
 - 19.3.1.3 registers its facilities in accordance with the registration requirements for wholesale consumers that are dispatchable loads. The demand response market participant shall not modify, vary or amend in any material respect any of the features or specifications of any resource without first requesting IESO authorization and approval in accordance with the applicable market manual;
 - 19.3.1.4 satisfies the connection assessment requirements in accordance with section 6 of Chapter 4, if required by the IESO in accordance with the applicable market manual;
 - 19.3.1.5 has provided prudential support in accordance with section 5 of Chapter 2.
- 19.3.2 The IESO may refuse participation of a dispatchable load's resource by a demand response market participant if the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.
- 19.3.3 The IESO may remove a demand response market participant's dispatchable load resource if the resource's continued participation would negatively impact the reliable operation of the IESO-controlled grid. The IESO may temporarily remove a demand response market participant's dispatchable load resource if the conditions on the IESO-controlled grid are such that the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.

Chapter 11

demand response auction means the auction operated by the IESO to procure demand response capacity, in accordance with section 18 of Chapter 7;

demand response auction participant means a person who is a market participant

that is authorized to participate only in a demand response auction;

demand response auction deposit means the deposit required to be made by a demand response auction participant in accordance with section 18 of Chapter 7, as a condition of participating in a demand response auction;

demand response capacity means the expected quantity of load reduction a demand resource can provide during a specified availability window and commitment period for a demand response auction, and excludes energy transacted through the energy market;

demand response capacity obligation means the amount of demand response capacity that a demand response market participant is obligated to provide during the applicable availability window and commitment period, following a demand response auction;

demand response contributor means an interruptible load or behind the meter generator that is owned by a demand response direct participant, or with whom a demand response aggregator has enforceable rights, and in either case, who will provide a portion of the monthly contracted MW for the contracted dispatch period as outlined in the demand response schedule. A demand response contributor also means the delivery of a demand response capacity obligation with an hourly demand response resource, in which case a monthly contracted MW is replaced by a demand response capacity obligation;

demand response market participant means a person who is a market participant ~~that is a demand response aggregator or demand response direct participant~~ that participates only in the capacity based demand response program, ~~or the demand response pilot program,~~ or is a person with a demand response capacity obligation;

hourly demand response means the resource type described in section 19 of Chapter 7, that is used by the IESO as a delivery type, on an hourly basis, for a demand response capacity obligation obtained through a demand response auction;

PART 5 – IESO BOARD DECISION RATIONALE

The amendments enable the participant authorization and facility registration requirements for Demand Response Auctions, which will allow for the future competitive procurement and development of demand response in Ontario.

Tab B

IESOTP 286-5b

DEMAND RESPONSE AUCTIONS – OVERVIEW

Technical Panel
January 20th, 2015

INTRODUCTION

What is the IESO's goal for demand response?

- “Achieve greater value and economic use of DR through improved integration of existing DR contracts in the IESO-administered energy market and dispatch process, and over the longer term through the expansion of DR market participant categories.”

DEMAND RESPONSE PROGRESS TO DATE

- IESO is transitioning wholesale DR from a program approach to a market approach
- Three streams of work will be undertaken to enable this:
 1. Implement market rules to transition DR3 contractual terms to a market structure (capacity-based demand response)
 - In-service March 4, 2015
 2. Implement a DR Auction mechanism to replace expiring OPA DR contracts, plus any additional needs identified
 - Target in service late 2015, for first capacity delivery in 2016
 3. Develop pilot programs to demonstrate capabilities of demand response to meet system needs (Load Following, Unit Commitment)
 - Target RFP released for submissions by end of February

BENEFITS OF A DR AUCTION

- An auction provides a competitive platform to allow for the selection of demand response resources
 - Allows for the entry of new, cost-competitive providers
- Provides flexibility to respond to changing conditions
- A stable transition provides learning opportunity for DR providers to be able to successfully compete in a full capacity auction

STAKEHOLDER CONSULTATION

- IESO has met with stakeholders throughout Q4 2014, holding four stakeholder engagement meetings and two webinars
- DR Auction Market Design proposal was developed with consideration for stakeholder feedback and Ontario's needs
- Market Design was published for stakeholder feedback in December, with comments due on January 15th

AUCTION DESIGN ELEMENTS

Eligibility	Market Participant Authorization
	Capacity Qualification
	Registration Requirements
Auction Parameters	Length of Forward Period
	Commitment Period
	Demand Curve
	Target Capacity Requirement
	Reference Price
	Maximum Auction Clearing Price
	Min/Max Cleared Capacity Limits
	Auction Mechanics
Performance	Resource Obligation
	Measurement & Verification
	Non-Performance Penalties and Set-offs
Settlements	Prudential Support
	Cost Recovery
	Payments

AUCTION DESIGN PROPOSAL HIGHLIGHTS

IESO will maintain ~500 MW of wholesale demand response

- Target MW requirement for each auction determined by IESO based on quantity of DR expiring from CBDR to maintain 500 MW target
- If additional needs identified through IESO forecasting and reliability studies then the target capacity will reflect this update

A Qualified Capacity (QCAP) calculation will value MW capacity contribution of different providers

- DR Auction targets demand-side MW that have an incremental impact on system needs

AUCTION DESIGN PROPOSAL HIGHLIGHTS

Forward period of five months

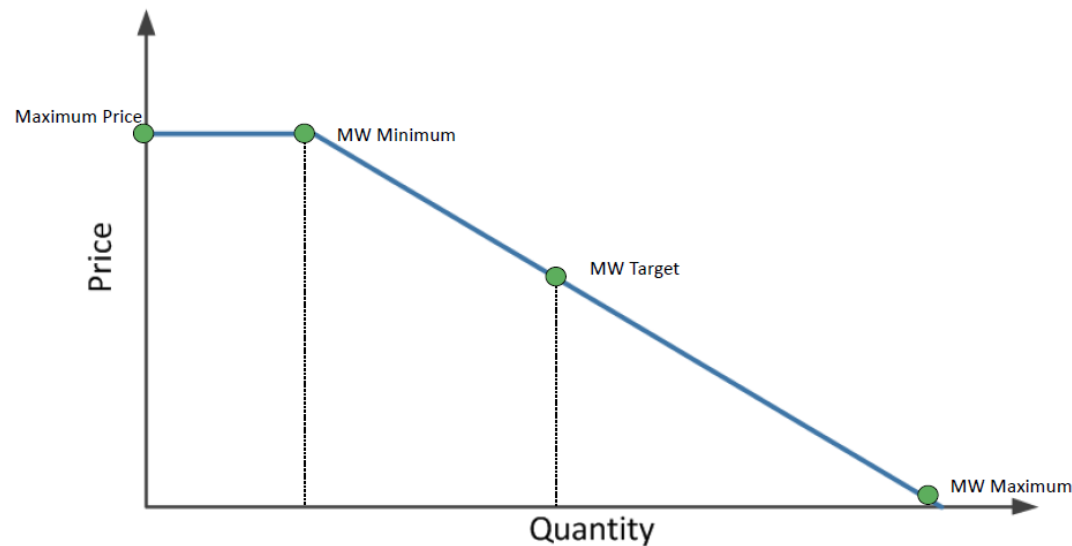
- Balance between greater business certainty and increased opportunities for new entrants

Seasonal commitment period

- Will provide greater flexibility for resources to offer into an auction in manner most consistent with capability
- Two seasons will be defined as:
 - Summer – May 1 to October 31
 - Winter – November 1 to April 30
- Auction for both seasons will be held at the same time
- Two separate clearing prices

AUCTION DESIGN PROPOSAL HIGHLIGHTS

MW will be procured in the Auction through the use of a downward-sloping demand curve.



AUCTION DESIGN PROPOSAL HIGHLIGHTS

DR resources with a DR auction obligation must participate in the energy market over the Availability Window.

- Must-Bid Requirement in Day-Ahead Commitment Process and real-time energy market
- Availability Window to be determined in detailed design

Cost recovery for the DR Auction is proposed to be allocated to consumers as a monthly uplift charge based on demand at system peak.

NEXT STEPS

- The Market Design will be finalized in February
- Stakeholders will be involved in detailed design discussions through Q1 and Q2 of 2015
- February 24th Technical Panel:
 - Request vote that ‘high level’ amendment submission warrants consideration for market rule changes to enable DR auctions
 - In coordination with stakeholdering efforts, more details on expected timing of draft market rule amendments for the various auction design elements
- Registration and Qualification for the Auction to begin in the fall
- Auction to take place in late November/early December for delivery in the first commitment period of May 2016

Tab C

IESOTP 290-7b

Demand Response Auction

Participant Authorization and Facility Registration

Technical Panel
June 2, 2015

Jason Kwok, IESO

Agenda

- Overview
 - Objectives of a DR Auction
 - Stakeholder Engagement
 - Market Rule Timelines
- Market Rule Proposals
 - Participant Authorization and Facility Registration
- Next Steps

Overview

- The IESO is proposing market rule amendments in order to implement a Demand Response (DR) Auction
 - The Demand Response Auction is an enduring competitive procurement mechanism for capacity that will replace expiring demand response contracts and support the future development of economic demand response in Ontario
- The first DR Auction will be held in December 2015 for delivery in May 2016.

Overview: Objectives

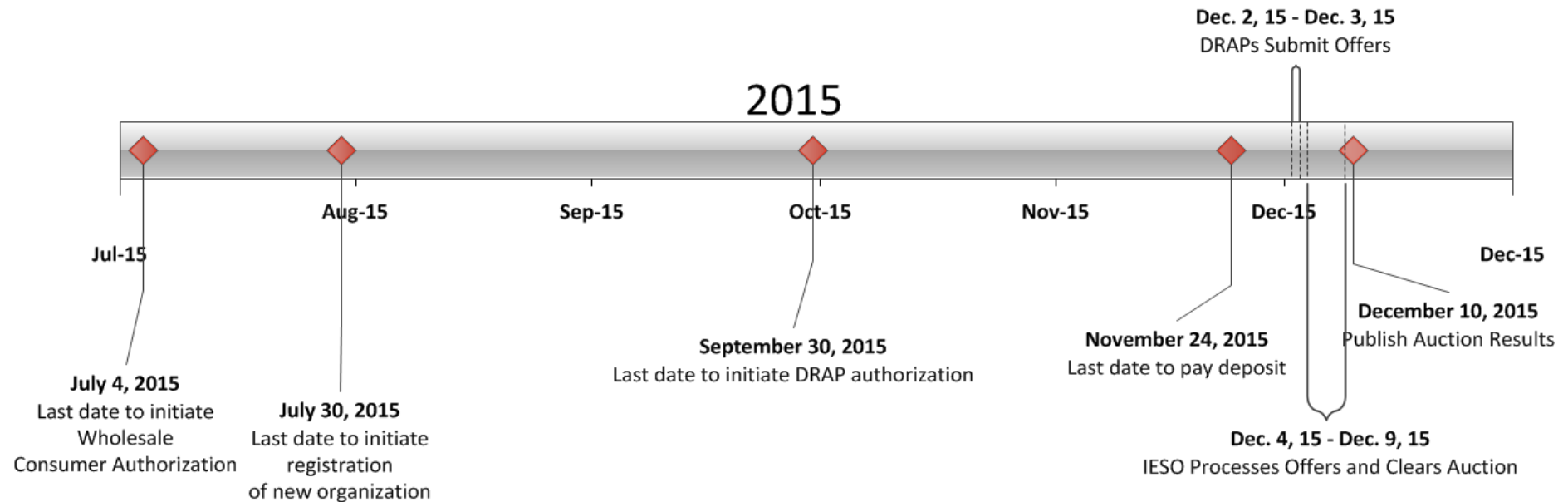
Key objectives for the DR Auction:

- Instituting a competitive, transparent platform that will allow for the selection of demand response resources based on price – securing DR at the lowest cost – and ability to grow and evolve to meet future system needs;
- Supporting the entry of new, cost-competitive providers;
- Driving innovation in a dynamic and growing sector;
- Providing flexibility to respond to changing market conditions;
- Creating a learning opportunity for demand response providers to be able to successfully compete in a full Capacity Auction.

Overview: Stakeholders

- DR Auction design has been developed in the context of an IESO Stakeholder Engagement:
 - IESO continues to work closely with stakeholders on all elements of the auction development, design and implementation
 - Further information on the engagement is available at the following link www.ieso.ca/sedrauction

Timeline



Market Rule Amendment Timelines

	<i>Participant Authorization Facility Registration</i>	<i>Auction Parameters Energy Market Participation</i>	<i>Settlements</i>
First redlined version of Market Rules presented to Technical Panel	June 2	July 7	August 11
Vote to Post for Stakeholder Comment			
Technical Panel Votes on a Recommendation to the IESO Board of Directors	July 7	August 11	September 22
Board of Directors Approve Proposed Market Rules	August 26	August 26	October 22
Effective dates	September 17	September 17	November 13

Participant Authorization and Facility Registration

- In order to attract the broadest range of potential DR providers, including current demand response providers as well as new entrants and new technologies, we have sought to reduce the requirements for participation in the auction
- Participants will be authorized to participate in the auction, and those that are successful will register facilities to meet their capacity obligations through participation in the energy market

Authorization and Registration Overview

- Three stages of market registration for the DR Auction:
 1. **Pre-Auction Authorization:** prospective auction participants will register to take part in the auction
 2. **Post-Auction Authorization:** auction participants who have successfully cleared in the auction will register to participate in the physical markets
 3. **Post- Auction Facility Registration:** physical market participants will register facilities in order to meet their auction obligations through the physical markets

Pre-Auction

Authorization as a Demand Response Market Participant

- Demand Response Auction Participant (Ch.2, s.2)
 - New market participant type will allow organizations to be able to participate in the DR Auction
 - Similar to TR authorization –required to execute a participation agreement and file a deposit with IESO prior to participation in the DR Auction

Post-Auction

Energy Market Authorization and Facility Registration

- Post-Auction requirements for participants who are successful in the auction
 - Become authorized as Demand Response Market Participant
 - Will be required to post Prudential Security and get access to IESO systems
 - Register facilities
 - Requirements will depend on the way in which an organization plans to deliver its DR Capacity Obligation

Post-Auction Facility Registration

- A Demand Response Market Participant can deliver their capacity obligation in two ways:
 - 5-minute Dispatchable Load
 - Hourly Demand Response
 - Will allow for participation by directly-connected non-dispatchable loads, aggregated and/or embedded loads
- Future proposed market rule amendments will outline other requirements (ex. energy market participation, settlement) for dispatchable load and Hourly DR respectively

Next Steps

- DR Auction stakeholder engagement initiative is in detailed design development phase
 - Final stakeholder meeting is expected on June 18
- IESO will bring two further submissions of market rule amendments that have been informed by stakeholder feedback
 - Auction Parameters and Energy Market Participation
 - Settlements

Schedule 3



Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00416-R03		
Subject:	Demand Response Auctions		
Title:	Demand Response Auctions – Non-Performance Charges & Settlement		
Nature of Proposal:	☒ Alteration	☐ Deletion	☒ Addition
Chapters:	7 & 9	Appendix:	
Sections:	Chapter 7, sections 18.4.4 (new), Chapter 9, sections 1.1.2.17, 2.1.1A.6 (new), 4.7J (new), 4.8.3.3 (new), 4.8.4.3 (new)		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review	August 4, 2015
2.0	Publish for Stakeholder Review and Comment	August 13, 2015
3.0	Submitted for Technical Panel Vote	September 15, 2015
4.0	Recommended by Technical Panel; Submitted for IESO Board Approval	September 22, 2015
5.0	Approved by IESO Board	October 22, 2015
Approved Amendment Publication Date:		October 22, 2015
Approved Amendment Effective Date:		November 13, 2015

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

The IESO proposes to amend the market rules in order to enable the settlement of amounts associated with obligations arising from a demand response auction, including availability payments, non-performance charges, and elected buy-outs.

This proposal is based on the Demand Response Auction stakeholder engagement.

Further information on the Demand Response Auction stakeholder engagement can be found on the IESO's website at:

<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Demand-Response-Auction.aspx>

Background

MR-00416-R03 will enable the settlement of Demand Response (DR) capacity obligations that are obtained through DR auctions.

For further background please see MR-00416:R00-R02.

Discussion

The following proposed market rules enable the settlements process associated with DR capacity obligations for hourly demand response (HDR) resources and dispatchable loads. Specifically, the proposed amendments enable the recovery of cost for the settlement of DR capacity obligations via an uplift charge using the same methodology to recover costs in the capacity based demand response (CBDR) program. In addition the proposed market rules specify payments and non-performance charges applicable to DR market participants with DR capacity obligations.

The proposed market rules will also specify the conditions when the IESO will draw on the DR auction deposit for a DR auction participant who has not fulfilled the eligibility requirements for energy market participation.

Chapter 7

Section 18.4 Demand Response Auction Deposits

It is proposed to insert new section 18.4.4 (continuation of section 18.4 on "Demand Response Auction Deposits" – MR-00416-R00) to specify that if a DR auction participant has not fulfilled the eligibility requirements for energy market participation (as specified in sections 19.2 and 19.3 of MR-00416-R00) and has not elected to buy-out of the DR capacity obligation pursuant to new proposed section 4.7J.3 (see below), that the participant shall forfeit its deposit, at the discretion of the IESO.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Chapter 9

Section 1.1: Application and Purpose

It is proposed to amend the market rules as follows:

- Amend sub-section 1.1.2.17 to expand the rights and obligations of the IESO and market participants in determining billing and payment with respect to financial obligations arising from DR capacity obligations.

Section 2: Settlement Data Collection and Management

DR Measurement Data:

Currently the market rules only permit a registered wholesale meter to be used for determining settlement amounts, with some limited exceptions. Not all HDR resources will have registered wholesale meters that meet IESO standards, and meeting the existing wholesale metering requirements of Chapter 6 of the market rules would be a significant barrier to entry into the IESO-administered markets.

In those instances where an HDR resource does not have a registered wholesale meter, they will be obligated to submit measurement data to enable the IESO to determine compliance with a DR capacity obligation.

It is proposed to amend section 2.1 “Metering and Metering Responsibilities” of Chapter 9 of the market rules as follows:

- Insert sub-section 2.1.1A.6 to allow the IESO to determine settlement amounts related to DR capacity obligations on the basis of measurement data submitted to the IESO which may not be from a registered wholesale meter.

Section 4: Non-Hourly Settlement Amounts

It is proposed to insert new section 4.7J “Demand Response Capacity Obligations” in Chapter 9 of the market rules as follows:

- Insert section 4.7J.1 to obligate the IESO to remit availability payments, if any, to the applicable DR market participant in the time and manner specified in the applicable market manual.

In accordance with sections 19.4.1 and 19.5.1 (refer to MR-00416-R02: Energy Market Participation) participants with a DR capacity obligation will receive an availability payment every month of the commitment period. The availability payment will be determined as follows:

$$= DR \text{ Auction Clearing Price} \times DR \text{ Capacity Obligation} \times \# \text{ of Business Days in Month}$$

The method for recovery of total availability payments from the market will be outlined in the applicable market manual, and will be consistent with the methodology used to calculate global adjustment distribution charges for class A and B loads. This is the same method used for the CBDR program.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Insert section 4.7J.2 – Non-Performance Charges:

Availability payments may be offset by non-performance charges which are detailed in this section 4.7J.2. Non-performance charges have been created to incent DR market participants to fulfill their DR capacity obligation. The four types of charges include: (i) availability charges; (ii) dispatch charges; (iii) administration charges and (iv) capacity charges. DR market participants/DR auction participants who cannot fulfil their DR capacity obligation may elect to “buy-out” all or a portion of their DR capacity obligations.

- Insert section 4.7J.2 to specify that a DR market participant shall, in accordance with the applicable market manual, be subject to the following non-performance charges for failing to meet the requirements of a DR capacity obligation:

DR Availability Charges:

- Insert section 4.7J.2.1 to specify that a DR market participant shall be subject to an availability charge for every hour of the availability window the participant fails to submit DR energy bids for the amount of their respective DR capacity obligation in either the day-ahead commitment process or in the real-time energy market. For HDR resources, DR energy bids that are part of at least a four consecutive hour block during the availability window will be deemed as available.
 - If a DR market participant does not meet their availability requirement, the following charge will be applied:

$$\text{Unavailable MWh} \times \frac{\text{DR Auction Clearing Price}}{\text{Hours per Day in Avail. Window}} \times \text{Non-Performance Factor}$$

- The “Non-Performance Factor” will be determined in relation to the periods of peak demand when DR is most needed. “Non-Performance Factors” will be outlined in the applicable market manual.

DR Dispatch Charges:

- Insert section 4.7J.2.2 to specify that a DR market participant participating with an HDR resource shall be subject to a dispatch charge for failing to comply with the activation notice or activation notice resulting from an activation test in accordance with section 19.4.5 and 19.4.12.
 - If a participant fails to comply with an activation notice, the following dispatch charge will be applied:

$$\text{DR Scheduled} \times \frac{\text{DR Auction Clearing Price}}{\text{Hours per Day in Avail. Window}} \times \text{Non-Performance Factor}$$

- The IESO will utilize the “High 15 of 20 with an In-day Adjustment Baseline” methodology to calculate compliance with dispatch, with a 15% compliance deadband. This is the same methodology used to measure compliance in the CBDR program.

DR Administration Charges:

- Insert section 4.7J.2.3 to specify that a DR market participant participating with an HDR

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

resource shall be subject to an administration charge for failing to submit measurement data to the IESO in the time and manner specified by the IESO.

- Participants will be required to submit monthly measurement data to the IESO on the sixth business day before the end of the following month. The IESO will inform participants within three business days of any errors in the submitted data. After receiving such notification from the IESO the participant will have another three business days to re-submit the measurement data (without any errors) in order to avoid an administration charge. These timelines will be detailed in the applicable market manual.
- The following administration charge will be applied for failing to comply with section 4.7J.2.3:

DR Capacity Obligation (MW) × DR Auction Clearing Price (\$/MW-day) × # of Business Days in the Month

DR Capacity Charges:

- Insert section 4.7J.2.4 to specify that a DR market participant participating with an HDR resource that fails to deliver capacity with an activation notice or activation test will be subject to a DR capacity charge.
 - The IESO will measure compliance to deliver capacity through an activation notice or activation test for an hourly demand response resource with the “High 15 of 20 with an In-day Adjustment Baseline” with a 20% upper band. The charge will be based on the full availability payment from the month of activation.
- Insert section 4.7J.2.5 to specify that a DR market participant participating with a dispatchable load that fails to deliver capacity through an activation test will be subject to a DR capacity charge.
- The charge will be based on one month’s availability payment, calculated as follows:

DR Capacity Obligation (MW) × DR Auction Clearing Price (\$/MW-day) × # of Business Days in the Month

DR “Buy-Out” Option:

DR market participants or DR auction participants who cannot fulfill their DR capacity obligation may elect to “buy-out” a portion, or all of their DR capacity obligations.

- Insert section 4.7J.3 to specify that a DR market or auction participant may elect to be subject to a buy-out charge if they wish to reduce all, or a portion of their DR capacity obligation for the remainder of their commitment period. Participants can buy-out their entire obligation or a portion of their obligation, provided the remaining portion is at least 1 MW.
 - The IESO’s buy-out charge will be calculated as follows:

(Availability Payments – Availability Charges) × 50%

The availability payments will be calculated as described in section 4.7J.1 and the

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

availability charge will be calculated as described in section 4.7J.2.1, with the exception that the DR capacity obligation used in the calculations will equal the amount of MW that are being reduced.

Insert section 4.7J.4:

- Insert section 4.7J.4 to specify that the IESO may audit a DR market participant's submitted measurement data and supporting information, and that the participant shall provide such information in the time and manner specified by the IESO. If the IESO's audit of the DR market participant's DR measurement data and supporting information indicates that the actual data differed from the submitted data, the IESO shall recover from or distribute to a DR market participant any resulting over or under payment as applicable. Any amounts recovered or distributed to a DR market participant shall be correspondingly distributed to or recovered from market participants in accordance with proposed section 4.8.3 or 4.8.4 below.

Section 4.8 – Additional Non-Hourly Settlement Amounts:

It is also proposed to insert a new section 4.8.3.3 and 4.8.4.3 under "Additional non-hourly settlement amounts" of Chapter 9 of the market rules as follows:

- Insert section 4.8.3.3 to obligate the IESO, at the end of each energy market billing period, to recover from market participants, as specified in the applicable market manual, any compensation paid in that energy market billing period to DR market participants in accordance with section 4.7J related to the settlement of a DR capacity obligation; and
- Insert section 4.8.4.3 to obligate the IESO, at the end of each energy market billing period, to distribute to market participants, as specified in the applicable market manual, any adjustments to DR market participants in accordance with section 4.7J related to the settlement of a DR capacity obligation.

PART 4 – PROPOSED AMENDMENT

Chapter 7

18.4 Demand Response Auction Deposits

18.4.4 In the event a demand response auction participant has not satisfied the applicable eligibility requirements specified in sections 19.2 and 19.3 of Chapter 7 and has not elected to buy-out the demand response capacity obligation in accordance with section 4.7J.3 of Chapter 9, the demand response auction participant shall, at the IESO's sole discretion, forfeit its demand response auction deposit.

Chapter 9

1.1 Application and Purpose

1.1.1 This chapter applies to:

1.1.1.1 the *IESO*; and

1.1.1.2 market participants.

1.1.2 This chapter sets out the respective rights and obligations of the *IESO* and of *market participants* in determining, billing for and effecting payment in respect of financial obligations arising from the *IESO-administered markets*, other provisions of the *market rules*, the *Electricity Act, 1998* and the *Ontario Energy Board Act, 1998*, including the following:

1.1.2.1 [Intentionally left blank – section deleted]

1.1.2.2 the *energy market*;

1.1.2.3 the *operating reserve market*;

1.1.2.4 congestion management;

1.1.2.5 *transmission rights (TRs)*;

1.1.2.6 [Intentionally left blank – section deleted]

1.1.2.7 *operating deviations*;

1.1.2.8 *ancillary services* and *reliability must-run contracts*;

1.1.2.9 *transmission service charges* and *connection charges* collected by the *IESO*;

1.1.2.10 rural rate protection;

1.1.2.11 the *IESO administration charge*;

1.1.2.12 penalties and fines;

1.1.2.13 any *debt retirement charge*;

1.1.2.14 rebates and other payments arising from market power mitigation measures;

1.1.2.15 the day-ahead commitment process;

1.1.2.16 forecasting services relating to *variable generation*; and

- 1.1.2.17 the *capacity based demand response program*, ~~and~~ *demand response pilot program* and demand response capacity obligations.
-

2. Settlement Data Collection and Management

2.1 Metering and Metering Responsibilities

2.1.1 Subject to section 2.1.1A, every *meter* utilised for determining *settlement amounts* according to this Chapter must be a *registered wholesale meter (RWM)*.

2.1.1A Nothing in section 2.1.1 shall be construed as requiring the *IESO* to determine *settlement amounts* on the basis of an *RWM* in circumstances where:

2.1.1A.1 it is permitted to use another *meter* for this purpose pursuant to section 3.1.4A; ~~or~~

2.1.1A.2 in circumstances where the *IESO* has determined that determination of *settlement amounts* using a *metering installation* whose registration has expired is required for the efficient operation of the *IESO-administered markets*; ~~or~~

2.1.1A.3 [Intentionally left blank – section deleted]

2.1.1A.4 the *IESO* has not permitted the use of the *RWM* for determining *settlement amounts* for the reason specified section 4.2.2A of Chapter 6; ~~or~~

2.1.1A.5 the *IESO* is determining *settlement amounts* related to the *capacity based demand response program* specified in section 17 of Chapter 7 using a measurement and verification plan submitted and approved under section 17.2.1.2 of Chapter 7; ~~or~~

2.1.1A.6 the *IESO* is determining *settlement amounts* related to *demand response capacity obligations* using measurement data submitted by *demand response market participants* with an *hourly demand response resource*.

4. Non-hourly Settlement Amounts

4.7J Demand Response Capacity Obligations

4.7J.1 The IESO shall remit an availability payment associated with a *demand response capacity obligation*, if any, to the applicable *demand response market participant*, in the manner specified in the applicable *market manual*.

4.7J.2 A *demand response market participant* with a *demand response capacity obligation* shall, in accordance with the applicable market manual, be subject to the following non-performance charges if the *demand response market participant* does not satisfy the requirements of its *demand response capacity obligation*:

Demand Response Availability Charges

4.7J.2.1 A *demand response market participant* shall be subject to an availability charge for every hour of the availability window it fails to submit *demand response energy bids* in the amount of their *demand response capacity obligation* in either the day-ahead commitment process or in the *real-time energy market*.

Demand Response Dispatch Charges

4.7J.2.2 A *demand response market participant* participating with an *hourly demand response* resource shall be subject to a dispatch charge for failure to comply with an activation notice received under section 19.4.5 of Chapter 7.

Demand Response Administration Charges

4.7J.2.3 A *demand response market participant* participating with an *hourly demand response* resource shall be subject to a *demand response* administration charge for failure to provide *demand response* measurement data to the IESO.

Demand Response Capacity Charges

4.7J.2.4 Subject to sections 19.4.5 and 19.4.12 of Chapter 7, a *demand response market participant* participating with an *hourly demand response* resource that fails to provide capacity through an activation notice or activation test, shall be subject to a *demand response capacity* charge.

4.7J.2.5 Subject to section 19.5.8, a *demand response market participant* participating with a *dispatchable load* that fails to provide capacity through an activation test shall be subject to a *demand response capacity* charge.

4.7J.3 A demand response market participant or a demand response auction participant may elect to be subject to a buy-out charge for all, or a portion of, their demand response capacity obligation in accordance with the applicable market manual, if they are unable to fulfill a demand response capacity obligation for the remaining portion of a commitment period.

4.7J.4 At any time, the IESO may audit any submitted demand response measurement data and supporting information and a demand response market participant shall provide such information in the time and manner specified by the IESO. If, as a result of such an audit, the IESO determines that actual measurement data and supporting information differed from the submitted measurement data and supporting information, the IESO shall recover from or distribute to a demand response market participant any resulting over or under payment, as applicable. Any amounts recovered or distributed to a demand response market participant shall be distributed to or recovered from market participants in accordance with sections 4.8.3 and 4.8.4.

4.8.3 The IESO shall, at the end of each energy market billing period, recover from market participants, in the manner specified in the applicable market manual, the following amounts:

4.8.3.1 any compensation for demand response market participants paid in that energy market billing period by the IESO pursuant to section 4.7H; ~~and~~

4.8.3.2 any compensation for demand response market participants paid in that energy market billing period by the IESO pursuant to section 4.7I; ~~and-~~

4.8.3.3 any compensation for demand response market participants paid in that energy market billing period by the IESO pursuant to section 4.7J.

4.8.4 The IESO shall distribute to market participants, in the manner specified in the applicable market manual, the following amounts:

4.8.4.1 any adjustments to demand response market participant payments pursuant to section 4.7H; ~~and~~

4.8.4.2 any adjustments to demand response market participant payments pursuant to section 4.7I; ~~and-~~

4.8.4.3 any adjustments to demand response market participant payments pursuant to section 4.7J.

PART 5 – IESO BOARD DECISION RATIONALE

The amendment will enable the settlement of amounts associated with obligations arising from a demand response auction, including availability payments, non-performance charges, and elected buy-

PART 5 – IESO BOARD DECISION RATIONALE

outs.



DR Auction - Metering
Cara Degelman to: Tony Ruberto
Cc: Alain Bourdages

11/17/2015 03:02 PM

Jason gave me a quick call to let us know metering is okay with using the existing CBDR metering setup for the new DR Auction. Scheduling the resource in real time will be addressed in training being offered in Jan/Feb. An official email to follow.

Cara

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Schedule 4

Chronology of Resolute's exchanges with IESO re DRA registration

- October 2015: IESO accepted Resolute's registration in the DRA program
- November 2015: IESO calls Resolute to let it know that the IESO will allow "the existing CBDR metering setup for the new DR Auction"¹. Moreover, in the presentation given by the IESO on November 18, 2015 titled "Physical DR Resource Registration", slide 13 states that the facility/resource registration information previously provided to the IESO will be prepopulated in the new registry system²
- December 2015: IESO awarded Resolute a Capacity Obligation
- Resolute participates in the DRA in 2016 and into 2017
- April 2017: Resolute undergoes a test activation on April 12, 2017. This is Resolute's first test activation since the beginning of the DRA program on May 1, 2016. Resolute's data confirms that the April 12 test activation is successful: Resolute reduced its load by approximately 64 megawatts, which is more than the required 50 megawatts.
- June 2017: Resolute receives invoice (the "June Invoice") which shows a clawback which Resolute presumes is related to the April 12, 2017 test activation in error
- June 2017: Resolute communicates with IESO in order to understand the clawback on the June Invoice
- July 27, 2017: IESO advises that it is only reading Resolute's grid-connected meter and not Resolute's second revenue meter which was previously used to demonstrate DR capacity (the "Mill Revenue Meter") but does not explain why it is so doing
- August 2017: Resolute communicates with IESO staff regarding the use of the Mill Revenue Meter in the DRA. The IESO advises that it will work with Resolute to re-register the Mill Revenue Meter and resolve this matter³
- September 1 2017: Resolute writes to the director of settlements to provide clarification in regards to the DRA capacity amount it can provide, and to confirm Resolute's commitment to work with the IESO to re-register the Mill Revenue Meter as part of the DRA program⁴

¹ See Resolute internal email dated November 17, 2015 confirming conversation with IESO, attached at Tab A.

² See slide 13, "Physical DR Resource Registration, Introduction to Market Trial Demonstration" dated November 18, 2015, attached at Tab B.

³ See for example email from Adnan Jabbar at IESO to Resolute dated August 24, 2017 attached at Tab C stating "you may need to contact your Meter Service Provider (MSP) to review the current configuration at the Bowater Thunder Bay facility and submit a metering proposal for the IESO metering to review in order to capture your full capacity behind the Q4 bus." See also email (also attached at Tab C) from Jason Grbavac at IESO to Resolute in which Jason thanks Resolute for its time and "clarity on how you plan to meet the capacity obligation of your organization in the DR Auction. The next step is for Resolute to send to the IESO a detailed proposal for registering your resource to meet your obligation (you were going to reach out to you MSP). Look forward to hearing back from you and discussing this further." See also August 24, 2017 Resolute internal email summarizing call from IESO where IESO stated that it believes the meter could be re-registered with the assistance of TB Hydro, attached at Tab D.

⁴ See letter to director of settlements dated September 1, 2017 attached at Tab E.

- September 8, 2017: IESO General Counsel writes that it has received the letter to the director of settlements and advises “that if you wish to communicate further with the Independent Electricity System Operator on this matter, such communications should be addressed to the General Counsel or, as applicable, through the appropriate notice of dispute channels, as set out in the *market rules*.”⁵
- September 27, 2017: Resolute files a Notice of Dispute with the IESO and IESO replies the next day advising that the IESO will contact Resolute to schedule the date and time to start the mandatory 30 day good faith negotiation under the Market Rules
- November 15, 2017: IESO approves Resolute’s proposed maximum capacity for the DRA of 54 megawatts, which is based on the same load calculation that Resolute used in all of the previous demand response programs
- November 23, 2017: Resolute participates in a conference call with the IESO regarding the measurement of Resolute’s DR capacity in the DRA program. For the first time, IESO identifies a market rule that it claims supports its position: Ch. 7, s. 19.2
- December 2017-present: Parties engage in processes under the *Market Rules* including the market rule amendment process before the Technical Panel.

⁵ Letter from John Rattray dated September 8, 2017, attached at Tab F.

Tab A



DR Auction - Metering
Cara Degelman to: Tony Ruberto
Cc: Alain Bourdages

11/17/2015 03:02 PM

Jason gave me a quick call to let us know metering is okay with using the existing CBDR metering setup for the new DR Auction. Scheduling the resource in real time will be addressed in training being offered in Jan/Feb. An official email to follow.

Cara

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Tab B

Physical DR Resource Registration

Introduction to Market Trial Demonstration

November 18, 2015

Agenda

- Background
- Overview of physical DR Resource registration
- Online IESO
- Market Trials
- Demonstration
- What you need to know for Go-live

Background

- As part of the Online Registration Project, the IESO developed a new application to register facilities and resources through the Online system.
- The Online system will be used for registration of physical demand response (DR) resources.
- You will no longer submit paper forms to the IESO. All requests will be submitted via Online IESO.
- All information submitted through Online IESO will be saved to the IESO's master database once approved by the IESO.
- Market Registration staff will continue to work with participants during the registration process.

Overview of DR Resource Registration

- The first step after you cleared the DR auction is to apply for Demand Response Market Participant (DRMP) authorization ASAP.
- Prior to registration, you must inquire whether a connection assessment is required if the resources provide DR capacity greater than 10 MW .
- If you have a physical DR capacity obligation, you would need to start the DR physical resource registration, using the Online system.
- You must finish the registration of all of the DR resources **one month before the beginning of the commitment period.**
- A physical DR capacity obligation can only be delivered with physical resources: Dispatchable Loads or/and Non-Dispatchable Loads (you can add any number of physical resources to a physical obligation).

Overview of DR Resource Registration

- For a Dispatchable Load (DL) resource: you need to designate it as a DR resource and specify the commitment period and the resource's DR capacity.
- For an Hourly Demand Response resource, you need to create an associated Hourly DR (HDR) resource **(if you are the load owner)** or you need to ask the facility owner to create one for you.
- This HDR resource is necessary to support the bidding and dispatch process. You need to specify the commitment period and the resource's DR capacity.
- You need to specify the MMP and the RMP for each HDR resource.
- When meeting a physical DR capacity obligation with more than one DR resource, all of the DR resources (in that zone) must have the same MMP.

Overview of DR Resource Registration

DR capacity

- As a part of the resource registration process, you must submit the DR capacity for each resource.
- The DR capacity per resource cannot exceed the physical DR obligation for the selected zone.
- The DR capacity per resource will be further used by the IESO (for purposes such as the DR test activations).
- It is important to record it right at the time of the DR resource registration (before the beginning of the commitment period).
- Otherwise, while in commitment period, the DR capacity cannot be increased, it can only be decreased.

Online IESO – DR Resource Registration

- The “Actions” page is where you initiate a request.



- **Action - Manage Resources**
 - To register the DL resource as a DR resource
 - To create the HDR resource for providing DR from an NDL
 - To assign the HDR's MMP and RMP relationships for the first time
- **Action - Manage Demand Response Commitments**
 - To manage the commitment information per resource

Online IESO - Equipment Registration Specialist

- A new contact role will be responsible for initiating and completing resource registration requests: “Equipment Registration Specialist”.
- This contact role will be available to all authorized DRMP organizations.
- The contact role is assigned through Online IESO at the time of authorization or added by the Applicant Representative through “Update Contacts” in Online IESO.
- Information about the contact role will be provided on the About Online IESO webpage at: <http://www.ieso.ca/Pages/Participate/Online-IESO.aspx>.
- Instructions to add a contact role can be found at: http://www.ieso.ca/Documents/training/Online-IESO/Step-by-step_Adding_Contact_Role.pdf.

Market Trials - Setup and Expectations

Setup

- Each participant in the market trials will receive their login information.
- Each participant has been assigned the “Equipment Registration Specialist” contact role by the IESO and will be able to initiate “Manage Resources” and “Manage Demand Response Commitments” requests.

Testing and Feedback

- Participants are expected to complete three test scenarios
- Any defects or enhancements should be recorded and sent to stakeholder.engagement@ieso.ca

Market Trials - Setup and Expectations

- Market Trials will run from November 18 to November 20.
- Support or questions during Market Trials can be directed to stakeholder.engagement@ieso.ca
- Feedback would be appreciated throughout the market trials and until December 1, 2015.

Market Trials - Test Scenarios

Scenario 1

- A physical DR capacity obligation delivered with one physical resource that is a DL (the name will have “TEST1_DL” suffix). This is possible only if you are the owner of the DL.

Scenario 2

- A physical DR capacity obligation delivered with one physical resource that is an NDL (the name will have “TEST2_NDL” suffix). You are also the owner of the NDL resource.

Scenario 3

- A physical DR capacity obligation delivered with an physical resource that is NDL (the name will have “TEST3_NDL” suffix). You are **not** the owner of this NDL resource.

Demonstration

DEMO

What You Need to Know for Go-live

- Facility/resource registration in Online IESO is scheduled to go live on December 2, 2015.
- You must become authorized as DRMP before starting the resource registration (after clearing the DR auction).
- Facility/resource registration information previously provided to the IESO will be prepopulated in the new registry system and will have to be verified before commencing a new registration request.
- Only an “Equipment Registration Specialist” will be able to initiate and complete resource registration requests in Online IESO.

What You Need to Know for Go-live

- Before commencing a new registration request, you should contact Market Registration and have assigned at least one “Equipment Registration Specialist” for your organization in Online IESO.
- Instructions to add a contact role can be found at:
http://www.ieso.ca/Documents/training/Online-IESO/Step-by-step_Adding_Contact_Role.pdf.
- Questions about the completion of resource registration should be directed to Market Registration at: market.registration@ieso.ca

Thank you

Questions???

Tab C

{In Archive} RE: DR Auction Resource Registration Discussion -
Next Steps
Adnan Jabbar
to:
'tony.ruberto@resolutefp.com'
08/24/2017 04:38 PM
Cc:
Dale Fitzgerald, Jason Grbavac, Mohamed El-Madhoun
Show Details

History: This message has been forwarded.
Archive: This message is being viewed in an archive.

Hi Tony

I had a chance to review your latest email including the SLD and other supporting documents relevant to your DR2/DR3 Contract. Based on the information provided, namely the M&V Plan, it seems that some of your load

may not be fully captured by the IESO registered revenue meter (1000010320) for the NDL resource 100799, as it is likely being offset through embedded generation.

I understand that in the DR2/DR3 Program, you had the ability to aggregate the meter data to reflect your actual consumption, where part of the load was captured by the IESO revenue meter and the other part was captured through a submitted (.csv) data file. Since the DR Auction Program is set-up differently from DR2/DR3 contract based programs, it is not possible for Resolute as a direct DR Auction Participant to submit a separate data file for aggregation with the IESO revenue meter data.

As per our brief discussion this morning, you may need to contact your Meter Service Provider (MSP) to review the current configuration at the BOWATER Thunday Bay facility and submit a metering proposal for the IESO metering to review in order to capture your full capacity behind the Q4 Bus. As per your current registration in the DR Auction, the energy delivery point 100799 which is used to settle your DR has only one registered meter point (1000010320) which is representative of your DR capability. Please see the latest totalization table and SLD for Bowater Thunder Bay CTS facility that is registered with the IESO metering attached to this email.

Regards,

Adnan Jabbar

Technical Officer | Metering Installations | (905-855-6146
Independent Electricity System Operator (IESO)

* adnan.jabbar@ieso.ca

From: tony.ruberto@resolutefp.com [mailto:tony.ruberto@resolutefp.com]
Sent: August 18, 2017 2:50 PM
To: Jason Grbavac; Dale Fitzgerald
Cc: Cara Degelman (Resolute FP)
Subject: Re: DR Auction Resource Registration Discussion - Next Steps

Jason, I've attached some supporting documentation on the DR3 registration system that lays out the meter configuration as I discussed this morning. I've also attached a marked up copy of the single line diagram and the M&V

plan from DR3 which gives the process narrative of how the measurement system was set up to work. So without reiterating a lot of this, here it is....it best explains how the metering was determined for our DR load. We need to understand how in the the electronic registration system this same format or information was not required as it was submitted for each iteration of DR up until the auction started in May of 2016,

I've contacted our MSP and reviewed the documents. As laid out in the M&V plan, the data files were submitted weekly until the MSP was asked to stop as the IESO was taking over reading directly from the meters. If further details are required he is willing to converse in more detail. Please review the attached documentation and let me know your thoughts on the next steps. If there are any technical issues/questions that arise please contact me asap.

Anthony Ruberto P. Eng
Engineering, Energy and Technical Superintendent
Resolute FP, Thunder Bay Ontario
(ph) 807-475-2147, (fax) 807-474-4414
Cell 807-476-8065
E-mail : tony.ruberto@resolutefp.com

From: Jason Grbavac <Jason.Grbavac@ieso.ca>
To: "tony.ruberto@resolutefp.com" <tony.ruberto@resolutefp.com>,
Cc: "Cara Degelman (Resolute FP)" <cara.degelman@resolutefp.com>
Date: 08/18/2017 09:56 AM
Subject: DR Auction Resource Registration Discussion - Next Steps

Tony,

As discussed, thank you for your time today and clarity on how you plan to meet the capacity obligation of your organization in the DR Auction. The next step is for Resolute to send the IESO a detailed proposal for registering your resource to meet your obligation (you were going to reach

out to your MSP).

Look forward to hearing back from you and discussing this further.

Thanks - Jason

Jason Grbavac | Senior Officer, Stakeholder Engagement
Independent Electricity System Operator (IESO) | T: (905) 855-6155 | C:
(905) 466-6154 Station A, Box 4474, Toronto, ON M5W 4E5
Web: www.ieso.ca | Twitter: IESO_Tweets | LinkedIn: IESO
Conservation: www.saveONenergy.ca | Twitter: saveONenergyOnt | LinkedIn:
saveONenergy

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Tab D

Apesteguy-Reux, Heloise

Subject: IESO wrt DR-A

From: Tony Ruberto/TBY/CSC
To: Cara Degelman/MTL/CPO/CSC@CSC,
Cc: Remi Lalonde/TBY/CSC@CSC
Date: 08/24/2017 03:51 PM
Subject: IESO wrt DR-A

Received a call today from Jason regarding information he/they had concerning my last email to him.

To summarize :

- M4 meter we used for other DR programs is apparently not registered with the IESO although they can read it and see it and they know it is a "Revenue Meter"
- the M4 meter is not attached to the DR-A resource (100799) **making a point of stating it isn't registered as part of the program again **
- they believe that we can get it properly registered with the assistance of TB Hydro
- I asked for an email summarizing what they are asking for so that I could communicate that to TB Hydro. I assume we want to get the ball rolling on this moving forward. It sounds like I just need to get James Mann (TB Hydro) to talk to the IESO metering group to set up the meter.
- as of this time (16:00) have not received the email from Jason.

Anthony Ruberto P. Eng
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Cell 807-476-8065
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Tab E



McCarthy Tétrault LLP
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George Vegh
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Direct Fax: (416) 868-0673
Email: gvegh@mccarthy.ca

VIA EMAIL AND COURIER

September 1, 2017

Jeannette Briggs
Director, Settlements
120 Adelaide St. West
Suite 1600
Toronto ON M5H 1T1
jeannette.briggs@ieso.ca

Dear Ms. Briggs:

**Re: Demand Response Auction capacity obligations at Resolute FP Canada Inc.
("Resolute")'s Thunder Bay facility**

The purpose of this letter is to provide clarification in regards to the demand response auction capacity amount associated with Resolute's Thunder Bay facility. Recent discussions with the IESO¹ have led to the identification of a technical misunderstanding between Resolute and the IESO in regards to the measurement of the amount of capacity which the Thunder Bay facility offers.

As detailed below, it has become apparent that the IESO is only reading one of two revenue meters which were previously utilized for the purpose of measuring Resolute's demand response program capacity. Resolute is working with the IESO to resolve this matter but provides this letter to communicate to the IESO that Resolute is confident that it has been correctly calculating the amount of capacity that it has available to offer under the demand response auction program and will continue to bid into the market on this basis.

Historically, Resolute Thunder Bay participated in the Demand Response 2, Demand Response 3 ("DR2" or "DR3", as applicable) and the Capacity Based Demand Response ("CBDR") programs. The meter data used for all of these programs was an aggregated value to reflect the total consumption of Resolute's load, where part of the load was captured by an IESO revenue meter and the other segment was captured through a submitted .csv data file from the Meter Service Provider, Thunder Bay Hydro (the "MSP"). It was this calculation that resulted in

¹ These discussions occurred following a test activation which occurred on April 12, 2017 as well as a standby activation on May 1, 2017.

the total available capacity for the demand response programs, i.e., a load that could vary between 70 MW – 110 MW dependent on production.

When the Demand Response Auction (DRA) began, the IESO no longer required the data files from the MSP and terminated the request for the data file transfer from the MSP. Resolute was aware of this request but was unaware that the IESO was no longer calculating the load in the manner described above. During the transition from CBDR to DRA Resolute worked extensively with the IESO regarding the registration process. On November 17, 2015 Resolute received a call from the IESO communicating that the metering department reviewed the existing CBDR revenue metering set-up and would continue to use this set-up for the DRA.²

Moreover, in the presentation given by the IESO on November 18, 2015 titled “Physical DR Resource Registration”, slide 13 states that the facility/resource registration information previously provided to the IESO will be prepopulated in the new registry system.

On April 12, 2017, the Thunder Bay facility underwent a demand response test activation, which was the first activation since the beginning of the program on May 1, 2016. Although the activation appeared to be a success from the view of the IESO control room and the data collected internally at the Thunder Bay facility level indicated the same, it was not until that trading day was processed on June 14, 2017 with the IESO Settlements group that it became apparent that the IESO did not view the activation as successful.

In the days following receipt of the June 14, 2017 statement Resolute tried to obtain information as to why the IESO did not view the test activation as successful, but it was not until August 24, 2017 that Resolute was advised by the IESO that one of the two revenue meters which were previously used (as described above) for the purpose of measuring Resolute’s demand response capacity was not being read for the purpose of DRA settlement. The IESO has advised Resolute that it can see the meter, read the meter and knows that it is a revenue grade meter but that it cannot be used for the DRA settlement until it is (re)registered and linked to the DRA resource. To once again stress this point, Resolute only became aware of the fact that the IESO was not reading this meter for the purpose of DRA settlement when the IESO advised of such on August 24, 2017.

Resolute does not know why this situation occurred and is diligently working with the IESO to (re)register the meter and link it to the DRA resource as the IESO has requested. Resolute notes that the issue may have arisen because at the time of preparation and pre-registration for the DRA, the IESO was transitioning the facility/resource registration paper process to Online IESO, a transition where many steps and procedures required multiple tries as well as IESO IT real-time intervention and troubleshooting. Eventually all pre-auction requirements were met and the IESO granted authorization to participate.

Resolute appreciates the efforts from the IESO to address this measurement issue and will continue to efficiently work with the IESO to resolve this matter. As noted above, Resolute is

² Resolute has an internal email dated November 17, 2015 documenting this communication from the IESO.



confident that it has been correctly calculating the baseline capacity amount and if activated would be able to provide to the market the full obligated capacity amount reflected in the bid.

Yours truly,

A handwritten signature in blue ink, appearing to read 'George Vegh', written over the printed name.

George Vegh

cc: Gabrielle Bélanger, Resolute Forest Products
Rémi Lalonde, Resolute Forest Products
Peter Giardetti, Resolute Forest Products
Anthony Ruberto, Resolute Forest Products

Tab F



Independent Electricity System Operator
1600-120 Adelaide Street West
Toronto, ON M5H 1T1
t 416.967.7474
www.ieso.ca

September 8, 2017

VIA EMAIL

George Vegh
McCarthy Tétrault LLP
PO Box 48, Suite 5300
Toronto-Dominion Bank Tower
Toronto, ON M5K 1E6
gvegh@mccarthy.ca

Dear Mr. Vegh:

Re: Demand Response Auction capacity obligations at Resolute FP Canada Inc.'s Thunder Bay facility

We have received a copy of your letter dated September 1, 2017, addressed to Jeannette Briggs, Director of Settlements, in respect of the above-noted matter.

Please be advised that if you wish to communicate further with the Independent Electricity System Operator on this matter, such communications should be addressed to the General Counsel or, as applicable, through the appropriate notice of dispute channels, as set out in the *market rules*.

Yours truly,

John Rattray
General Counsel, Secretary and
Chief Reliability Compliance Officer

cc: Jeannette Briggs, Director, Settlements

Schedule 5

Tab A



Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00416-R00		
Subject:	Demand Response Auctions		
Title:	Demand Response Auctions – Participant Authorization & Facility Registration		
Nature of Proposal:	☒ Alteration	☐ Deletion	☒ Addition
Chapters:	2, 7 & 11	Appendix:	2.2
Sections:	Chapter 2, section 2, 3, Chapter 7 section 18 (new), 19 (new), Chapter 11 definitions		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review	May 26, 2015
2.0	Publish for Stakeholder Review and Comment	June 4, 2015
3.0	Submitted for Technical Panel Vote	June 30, 2015
4.0	Recommended by Technical Panel; Submitted for IESO Board Approval	July 7, 2015
Approved Amendment Publication Date:		
Approved Amendment Effective Date:		

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

The IESO proposes to amend the market rules in order to implement a Demand Response Auction to allow for the future competitive procurement and development of demand response in Ontario.

Specifically, this amendment proposal will:

- Create a new market participant class, “demand response auction participant;”
- Specify the requirements to participate in a demand response auction, which include providing a demand response auction deposit;
- Specify that demand response auction participants who obtain a demand response capacity obligation through an auction, must become a demand response market participant;
- Provide details and eligibility for the delivery of demand response capacity obligations; and
- Specify that in order to deliver on a demand response capacity obligation, demand response market participants must satisfy the registration requirements as either a dispatchable load, or the requirements of an hourly demand response resource.

This proposal is based on the Demand Response Auction stakeholder engagement.

Further information on the Demand Response Auction stakeholder engagement can be found on the IESO’s website at:

<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Demand-Response-Auction.aspx>

Background

In order to participate in a demand response auction, existing market participants or new applicants must become authorized as a demand response auction participant. This market participant type will allow organizations to become authorized with the IESO for the purposes of participating in the auction and to be bound by the applicable IESO market rules. There are additional authorization and facility registration requirements for the IESO physical market for those auction participants that obtain a demand response capacity obligation from the auction.

In developing the demand response auction, the approach has been to facilitate participation by current demand response providers, potential new participants and new technologies. Authorization for demand response auctions is similar to the authorization for the transmission rights markets where a financial market participant is only required to execute a participation agreement and file a deposit with the IESO prior to auction participation.

Participants that are successful through a demand response auction (i.e. receive a demand response capacity obligation) will be required to register their facilities with the IESO and deliver the demand

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

response capacity obligation as an hourly demand response resource or as a dispatchable load.

Discussion

Chapter 2 – New Class of Market Participant

It is proposed to add a new class of market participant in the market rules solely for participation in demand response auctions. This addition includes:

- Chapter 2, section 2.1.1.10: New market participant class – “demand response auction participant”;
- Chapter 11, definitions: A new defined term for “demand response auction participant,” which means a person authorized to participate only in a demand response auction;
 - A new defined term for “demand response auction” will also be included in Chapter 11 to mean the auction operated by the IESO to procure demand response capacity.

A person wishing to submit offers into a demand response auction would apply to be authorized as a “demand response auction participant.” This would require application and authorization through the IESO’s market registration process and payment of the applicable application fees. The proposed definition of demand response auction participant will allow facilities able to provide demand response capacity to take part in the auction prior to completing facility registration with the IESO.

Further to the application for authorization of demand response auction participants, the IESO proposes to exclude the obligation under section 3.1.2.2 for applicants to submit either the federal harmonized value-added tax system registration number or proof of their exemption to the payment. This exclusion further aligns a demand response auction participant with the obligations of financial market participants.

Appendix 2.2 –Communication Requirements

In the Capacity Based Demand Response market rule amendments (MR-00408-R00), the IESO obligated demand response market participants to maintain a telephone and email address in order to ensure communication is maintained between the IESO and those participating in the capacity based demand response program. With the expansion of the definition a demand response market participant to include a market participant with a demand response capacity obligation, the IESO proposes to amend section 1.1.6A of Appendix 2.2 to limit the applicability of the section to demand response market participants that are only participating in the capacity based demand response program.

The IESO proposes the following amendments to sections 1.3.1 and 1.4.1 of Appendix 2.2 which details the obligations to install and maintain a dispatch workstation and a participant workstation.

Dispatch Workstations (section 1.3.1):

- Clarify that demand response market participants participating only in the capacity based demand response program or having a demand response capacity obligation delivered through an hourly demand response resource will be excluded from the obligation to install and maintain a dispatch workstation; and
- Exclude the obligation to install and maintain a dispatch workstation for demand response auction participants.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Participant Workstation (section 1.4.1):

- Clarify that demand response market participants participating only in the capacity based demand response program will be excluded from the obligation to install and maintain a participant workstation.

Demand response auction participants will be required to install and maintain a participant workstation in accordance with section 1.4.1 of Appendix 2.2 in order to communicate with the IESO and submit offers during their participation in a demand response auction. The details and requirements for participant workstations are outlined in the [Participant Technical Reference Manual](#).

Chapter 7

It is proposed to insert new section 18, “Demand Response Auctions” into chapter 7 of the market rules as follows:

Section 18.1 – Purpose of Demand Response Auctions

- Insert section 18.1.1 to specify that demand response auctions will be for the purpose of procuring demand response capacity in Ontario through a competitive auction process.
- Insert section 18.1.2 to obligate the IESO to publish the target amount of demand response capacity that will be procured through each demand response auction, the process will be detailed in the applicable market manual.

Section 18.2 – Participation in Demand Response Auctions

- Insert section 18.2.1 to specify that prerequisites for participation in a demand response auction are to become authorized as a demand response auction participant, submit to the IESO the amount of demand response capacity a participant is willing to provide and no less than five business days prior to the date which a demand response auction is to be conducted a participant must provide the IESO with a demand response auction deposit.
- Insert section 18.2.2 to specify chapters of the market rules that will **not** apply to demand response auction participants in order to avoid obligations in the market rules which should not be applicable to those participating only in a demand response auction:
 - Chapters 4, 5, and 6,
 - Chapter 7, other than this section 18
 - Chapters 8 and 10

All other market rules will apply to demand response auction participants unless explicitly identified in this section 18.2.2. This provision is similar to existing section 4.8.5 of Chapter 8, which specifies the market rules that are not applicable to financial market participants.

- Insert section 18.2.3 to obligate demand response auction participants that have successfully obtained a demand response capacity obligation through the demand response auction to become authorized as a demand response market participant.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Section 18.3 – Calculation of Demand Response Auction Deposits

Section 18.3.1 specifies that the IESO will calculate a demand response auction participant's demand response auction deposit, based on the amount of demand response capacity the demand response auction participant specifies they intend to offer in the demand response auction.

Section 18.4 – Demand Response Auction Deposits

This section specifies the manner in which demand response market participants may satisfy their deposit obligation, and is consistent with the acceptable forms for letters of credit allowable under the existing demand response security requirements in section 5A of Chapter 2, as well as the allowable forms for TR's (i.e. letters of credit or cash deposits) under section 4.8 of Chapter 8.

- Inset section 18.4.1 to specify that a demand response auction deposit must be submitted as either an irrevocable commercial letter of credit or a cash deposit.
- Insert section 18.4.2 to specify that the standard and IESO required provisions for letters of credit in the IESO markets:
 - Must be issued subject to either The Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600 or The International Standby Practices 1998;
 - The IESO shall be named as beneficiary in each letter of credit, each letter of credit shall be irrevocable, and partial draws on any letter of credit shall not be prohibited;
 - The only conditions for the IESO to draw on the letter of credit shall be the delivery of a certificate of an officer of the IESO that the IESO is entitled to draw on the letter of credit the amount owing to the IESO as specified in the certificate, as of the date of delivery of the certificate;
 - The letter of credit shall either provide for automatic renewal (unless the issuing bank advises the IESO at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one year. If the demand response deposit is not renewed ten (10) business days before the expiry of the letter of credit the IESO is entitled at that time to payment of the full amount of the letter of credit, once drawn upon it will be treated as a demand response deposit in the form of cash; and
 - The demand response auction participant represents and warrants to the IESO that the issuance of the letter of credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the demand response auction participant.
- Insert section 18.4.3 to specify that authorization for a demand response auction participant will be limited to the requirements outlined in this section 18.2.1.1 to 18.2.1.3 if the applicant has not applied or is not participating in any other IESO administered market.

Section 19 – Demand Response Market Participants with Demand Response Capacity Obligations

This section will introduce the ways in which a demand response market participant can fulfill a demand response capacity obligation and will include the applicable eligibility requirements. It is proposed to insert new section 19 "Demand Response Market Participants with Demand Response

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Capacity Obligations” into Chapter 7 as follows:

Section 19.1 – Purpose

- Insert section 19.1.1 to detail the purpose of section 19, which is to provide the details on the delivery of demand response capacity obligations.
- Insert section 19.1.2 to allow the delivery of a demand response capacity obligation through participation as an hourly demand response resource or as a dispatchable load.

Section 19.2 – Eligibility Requirements for Hourly Demand Response with a Demand Response Capacity Obligation

- Insert section 19.2.1 to specify that a demand response market participant will be eligible to participate as an hourly demand response resource, provided that the participant:
 - 19.2.1.1 – Demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual;
 - 19.2.1.2 – Registers its facilities and demand response contributors in accordance with the applicable market manual. The participant shall not make subsequent changes to that facility without pre-authorization from the IESO;
 - 19.2.1.3 – Satisfies the connection assessment requirements in section 6 of Chapter 4, if a connection assessment is required by the IESO in accordance with the applicable market manual;
 - 19.2.1.4 – Provides the appropriate prudential support in accordance with section 5 of Chapter 2.
- Insert section 19.2.2 and 19.2.3 to specify that the IESO may refuse or remove a demand response market participant, temporarily or permanently, if its resource’s continued participation would negatively impact the reliable operation of the IESO-controlled grid.
- Insert section 19.2.4 to specify chapters of the market rules that will **not** apply to demand response market participants that are authorized to participate only with an hourly demand response resource, in order to avoid obligations in the market rules which should not be applicable:
 - Chapter 2, sections 5A and 8;
 - Chapters 5, 6, 8, 10;
 - Chapter 7, section 7.

All other market rules will apply to demand response market participants participating only in the hourly demand response program unless explicitly identified in this section 19.2.4. For clarity, on a resource basis, a demand response market participant that is participating both as an hourly demand response resource and as a wholesale consumer that is a non-dispatchable load, must continue to meet the obligations throughout the market rules for non-dispatchable loads. The above market rule “carve-outs” are similar to existing section 17.2.4 of Chapter 7, which specifies the Chapters and sections not applicable to demand response market participants who participate only in the capacity based demand response program.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- Insert section 19.2.5 to allow non-dispatchable loads with a demand response capacity obligation to participate as an hourly demand response resource, if the non-dispatchable load meets the eligibility requirements of proposed section 19.2, as well as continuing to meet the requirements of a wholesale consumer that is a non-dispatchable load.

Section 19.3 – Eligibility Requirements for Dispatchable Loads with a Demand Response Capacity Obligation

- Insert section 19.3.1 to specify that a demand response market participant will be eligible to participate as a dispatchable load to fulfill a demand response capacity obligation, provided that the participant:
 - 19.3.1.1 – Demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual;
 - 19.3.1.2 – is authorized as a wholesale consumer;
 - 19.3.1.3 – Registers its facilities in accordance with the wholesale consumer registration requirements for dispatchable loads. The participant shall not make subsequent changes to that facility without pre-authorization from the IESO;
 - 19.3.1.4 – Satisfies the connection assessment requirements in section 6 of Chapter 4, if a connection assessment is required by the IESO in accordance with the applicable market manual;
 - 19.3.1.5 – Provides the appropriate prudential support in accordance with section 5 of Chapter 2.
- Insert section 19.3.2 and 19.3.3 to specify that the IESO may refuse or remove a demand response market participant, temporarily or permanently, if its resource's continued participation would negatively impact the reliable operation of the IESO-controlled grid.

Chapter 11 – Defined Terms:

In addition to the new defined term “demand response auction participant,” the following new defined terms are required for the implementation of a demand response auction and for the delivery of a demand response capacity obligation:

- “demand response auction” means the auction operated by the IESO to procure demand response capacity, pursuant to section 18 of Chapter 7.
- “demand response auction deposit” means the deposit required to be made by a demand response auction participant pursuant to section 18 of Chapter 7 as a condition of participating in a demand response auction.
- “demand response capacity” means the expected quantity of load reduction a demand resource can provide during a specified availability window and commitment period of a demand response auction, and excludes energy transacted through the energy market.
- “demand response capacity obligation” means the amount of demand response capacity that a demand response market participant is obligated to provide during the applicable availability

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

window and commitment period after the completion of a demand response auction.

- “hourly demand response” means the proposed resource type described in section 19 of Chapter 7 for the delivery, on an hourly basis, of a demand response capacity obligation obtained through a demand response auction.

The IESO proposes to amend the definition of “demand response contributor” to include the delivery of a demand response capacity obligation with an hourly demand response resource. The current definition relates only to the delivery of a contracted monthly MW under the capacity based demand response program.

Furthermore the IESO proposes to amend the definition of “demand response market participant” in order to incorporate the delivery of demand response capacity obligations. In addition, the IESO will remove the obligation for a demand response market participant to be either a demand response aggregator or demand response direct participant which is not a requirement for all existing types of demand response participation.

PART 4 – PROPOSED AMENDMENT

Chapter 2

2. Classes of Market Participants

2.1.1 The following classes of persons may apply for authorization to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid*:

2.1.1.1 *generators;*

2.1.1.2 *distributors;*

2.1.1.3 *wholesale sellers;*

2.1.1.4 *wholesale consumers;*

2.1.1.5 *retailers;*

2.1.1.6 *transmitters;*

2.1.1.7 *financial market participants; and*

2.1.1.8 [Intentionally left blank – section deleted]

2.1.1.9 *demand response market participants; and;*

2.1.1.10 *demand response auction participants.*

3. Application for Authorization

- 3.1.1 A person who wishes to be authorized by the *IESO* to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid* must file a completed *application for authorization to participate*.
- 3.1.2 The application for authorization to participate shall be accompanied by:
- 3.1.2.1 the non-refundable application fee established from time to time by the *IESO* to defray the costs of processing the application; and
- 3.1.2.2 unless the *application for authorization to participate* is submitted in respect of an applicant that is applying for authorization to participate in the *IESO-administered markets* solely as a *financial market participant* or a demand response auction participant, either:
- the federal harmonized value-added tax system registration number issued to the applicant by the Canada Customs and Revenue Agency; or
 - where the applicant is resident in Canada and is, by virtue of *applicable law*, not liable to pay the federal harmonized value-added tax under Part IX of the *Excise Tax Act* (Canada), such documentation as may be prescribed in the *Excise Tax Act* (Canada) or described in the policies of the Canada Customs and Revenue Agency to support the exemption from such liability to pay.

Appendix 2.2 – Technical Requirements: Voice Communication, Monitoring and Control, Workstations and Re-Classification of Facilities

- 1.1.6A Each *demand response market participant* participating in the capacity based demand response program shall provide to the *IESO* and maintain one commercially available telephone and electronic mail address for the purposes of communicating with the *IESO*.

1.3 Dispatch Workstations

- 1.3.1 Each *market participant* other than a *boundary entity* ~~or~~, a demand response auction participant, or a demand response market participant participating in either the capacity based demand response program or with a demand response

capacity obligation through an hourly demand response resource shall, for the purposes of:

- 1.3.1.1 the provision to the *IESO* of real-time information required by the *IESO* to direct the operations of the *IESO-controlled grid*;
- 1.3.1.2 if the person is or will be subject to dispatch by the *IESO*, the receipt of *dispatch instructions*; and
- 1.3.1.3 the exchange with the *IESO* of other information required to be submitted or received pursuant to Chapter 7 or Chapter 8, other than the submission, receipt of confirmation of and validation of *dispatch data*, *TR bids* or *TR offers* in the *TR market* and *physical bilateral contract data*,

provide, install and maintain a *dispatch workstation* that meets the specifications and other requirements set forth in the *participant technical reference manual* and that is configured to support communication with the real-time communication network channel or channels provided by the *IESO* in the manner described in the *participant technical reference manual*.

.....

1.4 Participant Workstations

- 1.4.1 Subject to section 1.6, each *market participant* other than a *demand response market participant* participating only in the capacity based demand response program shall, for the purposes of conducting secure communications or transactions with the *IESO* using *IESO*-supplied or approved software, provide, install and maintain a *participant workstation* that meets the specifications, definitions and other requirements set forth in the *participant technical reference manual*.
-

Chapter 7

18. Demand Response Auctions

18.1 Purpose of Demand Response Auctions

- 18.1.1 The demand response auction will procure demand response capacity through a competitive auction.

18.1.2 The *IESO* shall specify and *publish* a target capacity amount to be procured in each *demand response auction*, as specified in the applicable *market manual*.

18.2 Participation in Demand Response Auctions

18.2.1 No person may participate in a *demand response auction* nor receive a *demand response capacity obligation* unless that person has:

18.2.1.1 been authorized by the *IESO* as a *demand response auction participant* in accordance with section 3 of Chapter 2;

18.2.1.2 submitted and has been approved by the *IESO*, using forms and procedures as may be established by the *IESO* in the applicable *market manual*, the amount of *demand response capacity* that the *demand response auction participant* is willing to provide; and

18.2.1.3 no less than five *business days* prior to the date on which a *demand response auction* is to be conducted, provided to the *IESO* a *demand response auction deposit*, in one or both of the forms set forth in section 18.4.

18.2.2 The following provisions of the *market rules* shall not apply to a *demand response auction participant* that is authorized by the *IESO* to participate only in a *demand response auction*:

18.2.3.1 Chapters 4, 5, and 6;

18.2.3.2 Chapter 7 other than this section 18; and

18.2.3.3 Chapters 8 and 10.

18.2.3 A *demand response auction participant* who obtains a *demand response capacity obligation* through a *demand response auction* shall apply to become authorized by the *IESO* as a *demand response market participant* in accordance with section 3 of Chapter 2.

18.3 Calculation of Demand Response Auction Deposits

18.3.1 Upon receipt of a *demand response auction participant's demand response capacity* under section 18.2.1.2, the IESO shall determine for each *demand response auction participant*, a *demand response auction deposit* for a *demand response auction* as specified in the applicable *market manual*.

18.4 Demand Response Auction Deposits

18.4.1 A *demand response auction deposit* shall be in one or both of the following forms:

18.4.1.1 an irrevocable commercial letter of credit provided by a bank named in a Schedule to the *Bank Act*, S.C. 1991, c. 46; or

18.4.1.2 a cash deposit made with the IESO by or on behalf of the *demand response auction participant*.

18.4.2 Where all or part of a *demand response auction deposit* is in the form of a standby letter of credit, the following provisions shall apply:

18.4.2.1 the letter of credit shall provide that it is issued subject to either The Uniform Customs and Practice for Documentary Credits, 1993 Revision, ICE Publication No. 500 or The International Standby Practices 1998;

18.4.2.2 the IESO shall be named as beneficiary in the letter of credit, the letter of credit shall be irrevocable and partial draws on the letter of credit shall not be prohibited;

18.4.2.3 the only condition on the ability of the IESO to draw on the letter of credit shall be the delivery of a certificate of an officer of the IESO that a specified amount is owing by the *demand response auction participant* to the IESO and that, in accordance with the provisions of the *market rules*, the IESO is entitled to payment of that specified amount as of the date of delivery of the certificate;

18.4.2.4 the letter of credit shall either provide for automatic renewal (unless the issuing bank advises the IESO at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one (1) year. Where the IESO is advised that a letter of credit is not to be renewed or the term of the letter of credit is to expire, the *demand response auction participant* shall arrange for and deliver additional *demand response auction deposits* if the *demand response auction participant* intends to continue to participate in a *demand response auction*. If such additional *demand response auction deposits* are not received by the IESO ten (10) business days before the expiry of a letter of credit, the IESO shall be entitled as of that time to payment of the full face amount of the letter of credit which amount,

once drawn by the IESO, shall be treated as a demand response auction deposit in the form of cash; and

18.4.2.5 by including a letter of credit as part of a demand response auction deposit, the demand response auction participant represents and warrants to the IESO that the issuance of the letter of credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the demand response auction participant.

18.4.3 Notwithstanding any other provision of these market rules, a person that applies for authorization to participate in the demand response auction and that has not applied for authorization to participate, or is not participating, in any other IESO-administered market shall not be required to comply with any requirements for authorization other than those set forth in sections 18.2.1.1 to 18.2.1.3.

19. Demand Response Market Participants with Demand Response Capacity Obligations

19.1 Purpose

19.1.1 This section details the delivery of a demand response capacity obligation obtained through a demand response auction.

19.1.2 A demand response market participant who receives a demand response capacity obligation obtained through a demand response auction shall deliver into the IESO-administered market via resources registered as:

19.1.2.1 hourly demand response; or

19.1.2.2 a dispatchable load.

19.2 Eligibility Requirements for Hourly Demand Response Resources with Demand Response Capacity Obligations

19.2.1 A demand response market participant is eligible to participate as an hourly demand response resource provided that the demand response market participant:

19.2.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation obtained through a demand response auction, as specified in the applicable market manual;

- 19.2.1.2 registers its facilities and demand response contributors as applicable, to the satisfaction of the IESO, in accordance with the applicable market manual. The demand response market participant shall not modify, vary or amend in any material respect any of the features or specifications of any resource without first requesting IESO authorization and approval in accordance with the applicable market manual;
- 19.2.1.3 satisfies the connection assessment requirements in accordance with section 6 of Chapter 4, if required by the IESO, in accordance with the applicable market manual;
- 19.2.1.4 has provided prudential support in accordance with section 5 of Chapter 2.
- 19.2.2 The IESO may refuse participation of an hourly demand response resource by a demand response market participant if the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.
- 19.2.3 The IESO may remove a demand response market participant's hourly demand response resource from market participation if the resource's continued participation would negatively impact the reliable operation of the IESO-controlled grid. The IESO may temporarily remove a demand response market participant's hourly demand response resource from market participation if the conditions on the IESO-controlled grid are such that the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.
- 19.2.4 The following provisions of the market rules shall not apply to a demand response market participant that is authorized by the IESO to participate only with an hourly demand response resource and is not a wholesale consumer that is a non-dispatchable load:
- 19.2.4.1 Chapter 2, sections 5A and 8;
- 19.2.4.2 Chapters 5, 6, 8, 10; and
- 19.2.4.3 Chapter 7 section 7.
- 19.2.5 A wholesale consumer that is a non-dispatchable load may participate as an hourly demand response resource to fulfill a demand response capacity obligation, provided that the non-dispatchable load meets all the applicable eligibility requirements of this section 19.2, and the requirements in the market rules that are applicable to a wholesale consumer that is a non-dispatchable load.

19.3 Eligibility Requirements for Dispatchable Loads with a Demand Response Capacity Obligation

- 19.3.1 A demand response market participant is eligible to participate as a dispatchable load in satisfying its demand response capacity obligation, provided that the demand response market participant:
- 19.3.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation obtained through a demand response auction, as specified in the applicable market manual;
 - 19.3.1.2 is authorized as a wholesale consumer;
 - 19.3.1.3 registers its facilities in accordance with the registration requirements for wholesale consumers that are dispatchable loads. The demand response market participant shall not modify, vary or amend in any material respect any of the features or specifications of any resource without first requesting IESO authorization and approval in accordance with the applicable market manual;
 - 19.3.1.4 satisfies the connection assessment requirements in accordance with section 6 of Chapter 4, if required by the IESO in accordance with the applicable market manual;
 - 19.3.1.5 has provided prudential support in accordance with section 5 of Chapter 2.
- 19.3.2 The IESO may refuse participation of a dispatchable load's resource by a demand response market participant if the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.
- 19.3.3 The IESO may remove a demand response market participant's dispatchable load resource if the resource's continued participation would negatively impact the reliable operation of the IESO-controlled grid. The IESO may temporarily remove a demand response market participant's dispatchable load resource if the conditions on the IESO-controlled grid are such that the resource's participation would negatively impact the reliable operation of the IESO-controlled grid.

Chapter 11

demand response auction means the auction operated by the IESO to procure demand response capacity, in accordance with section 18 of Chapter 7;

demand response auction participant means a person who is a market participant

that is authorized to participate only in a demand response auction;

demand response auction deposit means the deposit required to be made by a demand response auction participant in accordance with section 18 of Chapter 7, as a condition of participating in a demand response auction;

demand response capacity means the expected quantity of load reduction a demand resource can provide during a specified availability window and commitment period for a demand response auction, and excludes energy transacted through the energy market;

demand response capacity obligation means the amount of demand response capacity that a demand response market participant is obligated to provide during the applicable availability window and commitment period, following a demand response auction;

demand response contributor means an interruptible load or behind the meter generator that is owned by a demand response direct participant, or with whom a demand response aggregator has enforceable rights, and in either case, who will provide a portion of the monthly contracted MW for the contracted dispatch period as outlined in the demand response schedule. A demand response contributor also means the delivery of a demand response capacity obligation with an hourly demand response resource, in which case a monthly contracted MW is replaced by a demand response capacity obligation;

demand response market participant means a person who is a market participant ~~that is a demand response aggregator or demand response direct participant~~ that participates only in the capacity based demand response program, ~~or the demand response pilot program,~~ or is a person with a demand response capacity obligation;

hourly demand response means the resource type described in section 19 of Chapter 7, that is used by the IESO as a delivery type, on an hourly basis, for a demand response capacity obligation obtained through a demand response auction;

PART 5 – IESO BOARD DECISION RATIONALE

Tab B



Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00416-R01		
Subject:	Demand Response Auctions		
Title:	Demand Response Auctions – Auction Parameters		
Nature of Proposal:	☒ Alteration	☐ Deletion	☒ Addition
Chapters:	7 & 11	Appendix:	N/A
Sections:	18.5 (new), 18.6 (new), 18.7 (new) & 18.8 (new)		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review	June 30, 2015
2.0	Publish for Stakeholder Review and Comment	July 9, 2015
3.0	Submitted for Technical Panel Vote	August 4, 2015
4.0	Recommended by Technical Panel; Submitted for IESO Board Approval	August 11, 2015
Approved Amendment Publication Date:		
Approved Amendment Effective Date:		

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

The IESO proposes to amend the market rules in order to implement a Demand Response Auction to allow for the future competitive procurement and development of demand response in Ontario.

Specifically, this amendment proposal will establish:

- The demand response auction parameters;
- The IESO pre-auction and post auction reporting obligations; and
- The demand response auction mechanics to determine the auction clearing price(s) and quantity.

This proposal is based on the Demand Response Auction stakeholder engagement.

Further information on the Demand Response Auction stakeholder engagement can be found on the IESO's website at:

<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Demand-Response-Auction.aspx>

Background

The demand response auction is a competitive, transparent platform that will facilitate the procurement of Ontario's target demand response at the lowest cost to Ontario.

The annual demand response auction will determine, for the following year, seasonal demand response capacity obligations (MW) and demand response clearing price(s) for successful auction participants. For each commitment period, the IESO will establish a demand curve and the demand response capacity offers will be stacked against the demand curve to determine the capacity obligations that minimize total cost while respecting the parameters of the demand response auction.

Prior to each auction, the IESO will establish and publish the demand response auction demand curve parameters in a public, pre-auction report. The pre-auction report will also identify timelines for participation and zonal constraints. The outcomes of the demand response auction will be included in both public and private reports sent directly to auction participants.

Discussion

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Chapter 7

It is proposed to further expand new section 18¹, “Demand Response Auctions” in Chapter 7 of the market rules as follows:

Section 18.5 – Demand Response Auction Parameters

- Insert section 18.5.1 to specify that the IESO will conduct a demand response auction for a one-year period. Each year will be divided into commitment periods with the first auction having a summer (May 1 to October 31) and winter (November 1 to April 30) seasonal commitment period. Subsequent auctions may have different seasonal commitment periods.

Demand Curve, Zonal Requirement and Pre-Auction Reports

- Insert section 18.5.2 to obligate the IESO, in accordance with the applicable market manual, to publish a pre-auction report, including the following reference points that define the demand response auction demand curve:
 - Demand response target capacity (new proposed defined term in Ch 11 below) – the IESO intends to maintain the current level (approximately 500 MW) of demand response capacity associated with the Capacity Based Demand Response program (“CBDR”). Prior to each auction, the IESO will assess the amount of CBDR exiting the program via contract expiry. The target capacity will be determined based upon the following factors: the amount of quantity exiting the CBDR program, the target capacity from the previous auction and any additional needs identified by the IESO.
 - Demand response auction reference price (new proposed defined term in Ch 11 below) – the reference price is an estimate of the cost of new entry at which new demand response resources would be incented to make their capacity available. The reference price is directly associated with the target capacity as another key reference point for the demand curve.
 - Minimum and maximum demand response auction clearing prices (new proposed defined term in Ch 11 below) – the maximum auction clearing price is the highest amount the IESO is willing to pay for demand response capacity in the auction. There are instances when the actual cost of demand response is higher than the projected cost (reference price) and therefore the maximum auction clearing price will provide some cost flexibility. The minimum will be \$0 per MW-day.
 - Minimum demand response capacity limit – is the minimum amount of demand response capacity the IESO shall clear in the auction.
 - Maximum demand response capacity limit at the maximum demand response auction clearing price – is the maximum amount of demand response capacity the IESO shall clear at the maximum demand response auction clearing price.
 - Maximum demand response capacity limit – is the maximum amount of capacity which the auction shall clear in the auction.

¹ New section 18 (i.e. 18.1 to 18.4) “Demand Response Auctions” proposed in MR-00416-R00: Demand Response Auctions – Participant Authorization & Facility Registration.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- Insert section 18.5.3 to obligate the IESO to define and publish in the pre-auction report the demand response zonal constraints. These zones will be defined by any locational limitation or specific regional needs that arise from IESO planning studies. The zonal constraints will be used to set a minimum and maximum capacity limit for each zone if required.
- Insert section 18.5.4 to obligate the IESO to publish the following timelines associated with the demand response auction:
 - The deadline to submit the amount of demand response capacity that a demand response auction participant is willing to provide;
 - The deadline for submission of the demand response auction deposit, which is outlined in proposed new section 18.2.1.3 of Chapter 7 as part of MR-00416-R00;
 - The demand response auction offer submission window;
 - The date that the IESO will conduct the demand response auction; and
 - The date that the IESO will publish the public and private post-post auction reports.

Section 18.6 – Demand Response Auction Offers

- Insert section 18.6.1 to outline the general obligations for demand response auction offers (new proposed defined term in Ch 11 below) submitted into the demand response auction by a demand response auction participant which are as follows:
 - Offers of demand response capacity may only be submitted and revised as per the timelines specified and published by the IESO in section 18.5.4;
 - Offers will only be applicable to the commitment period specified by the demand response auction participant; and
 - Offers will be time stamped by the IESO when received.
- Insert section 18.6.2 to outline the following requirements for a demand response auction offer to be submitted to the IESO by a demand response auction participant:
 - Obliges the demand response auction participant to comply with the participation requirements which were proposed in new section 18.2.1 of Chapter 7 as part of MR-00416-R00;
 - Ensures that the demand response auction participant has not been disqualified from auction participation, in full or in part, due to previous poor performance fulfilling a demand response capacity obligation. Referenced sections 19.4.8 and 19.5.4 are proposed new sections in Chapter 7 as part of MR-00416-R02 and contain the following provisions that are consistent for both hourly demand response resources and dispatchable load facilities. Proposed section 19.4.8 and 19.5.4 of Chapter 7:
 - The IESO may disqualify from future participation in the demand response auction any demand response market participant hourly demand response resource/dispatchable load facility that consistently fails to reduce its consumption when called upon in accordance with this section 19.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- Insert section 18.6.3 to detail the required parameters of demand response auction offers from participants. A demand response auction participant can submit up to twenty price-quantity pairs for each commitment period that shall comply with the following:
 - Offers shall be applicable for an entire commitment period;
 - The offer price be greater than or equal to \$0.00 and must not exceed the maximum demand response clearing price. The offer price needs to be expressed in dollars and whole cents per MW-day (e.g. \$10.01 per MW-day);
 - The offer must increase as the offered quantity increases therefore the 20 price-quantity pairs must be monotonically increasing;
 - The offer quantity must be expressed in MW to not more than 1 decimal place and must not be greater than the demand response capacity qualified during participant authorization as required by proposed new section 18.2.1.2 of Chapter 7 - MR-00416-R00; and
 - The offer must specify whether the participant is willing to accept a capacity obligation for a partial amount of the demand response capacity offered.

Section 18.7 – Demand Response Auction Clearing Prices and Quantities

- Insert section 18.7.1 to specify that the IESO will determine the demand curve for each commitment period based upon the demand response auction parameters outlined in section 18.5.
- Insert section 18.7.2 to outline that the process for the IESO to determine the demand response auction clearing price for each commitment period will be detailed in the applicable market manual.
- Insert section 18.7.3 to specify that the IESO will determine the demand response capacity obligation for each commitment period based upon the applicable market manual and the tie-breaking principles outlines in the section 18.7.5 of Chapter 7.
- Insert section 18.7.4 to obligate the IESO to determine the demand response auction clearing prices (new proposed defined term in Chapter 11 below) and the demand response capacity obligation for each demand response auction. The clearing price and capacity qualifications determined through the auction will apply for each day in the commitment period in accordance with the availability window.
- Insert section 18.7.5 to detail the tie-breaking process for demand response auction offers which will be validated by the time stamp received upon submission of the offer. Further details will be provided in the applicable market manual.

Section 18.8 – Post-Auction Reporting

- Insert section 18.8.1 to obligate the IESO to publish the following:
 - The demand response auction clearing price;
 - The amount of demand response capacity procured through the auction; and
 - The names of the demand response auction participants that received a demand

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

response capacity obligation and their respective demand response capacity obligations.

- Insert section 18.8.2 to obligate the IESO to issue confidential post-auction reports to each demand response auction participant detailing the offers that have cleared the auction and the accompanying demand response capacity obligations.

Chapter 11 – Defined Terms

The following new defined terms are required for the implementation of a demand response auction and for the delivery of demand response auction offers into the auction:

- “commitment period” means the length of time for which a demand response market participant is required to fulfill its demand response capacity obligation by making its demand response capacity available for dispatch through the day-ahead commitment process and energy market
- “demand response auction clearing price” means the price at which the demand response auction clears for a commitment period and will be quoted in \$/MW-day;
- “demand response auction offer” means an offer to sell demand response capacity in a demand response auction
- “demand response auction reference price” means the estimated costs necessary to support the sufficient return on investment for a new, representative demand response resource, net of expected ancillary services revenues and avoided energy costs; and
- “demand response target capacity” means the amount of demand response capacity which the IESO seeks to clear through the demand response auction;
- “demand response zonal constraints” means the minimum or maximum amount of demand response capacity that the demand response auction seeks to clear for a specific electrical zone as detailed by the IESO in each pre-auction report;

PART 4 – PROPOSED AMENDMENT

Chapter 7

18. Demand Response Auctions

18.5 Demand Response Auction Parameters

18.5.1 The IESO shall conduct a demand response auction on an annual basis to procure demand response capacity for a one-year period. In each demand response auction the IESO shall procure demand response capacity for each commitment period as specified in the applicable market manual.

Demand Curve, Zonal Constraints and Pre-Auction Reports

18.5.2 The IESO shall, in accordance with the applicable market manual, publish a pre-auction report in advance of each demand response auction, including the following demand response auction demand curve reference points:

18.5.2.1 a demand response target capacity in accordance with section 18.1.2;

18.5.2.2 a demand response auction reference price;

18.5.2.3 a maximum and minimum demand response auction clearing price;

18.5.2.4 a minimum demand response capacity limit that a demand response auction shall clear;

18.5.2.5 a maximum demand response capacity limit at the maximum demand response auction clearing price that a demand response auction shall clear; and

18.5.2.6 a maximum demand response capacity limit that a demand response auction shall clear.

18.5.3 The IESO shall define demand response zonal constraints for each demand response auction and the IESO shall publish, in the pre-auction report, those requirements as specified in the applicable market manual.

18.5.4 The IESO shall specify and publish the following timelines associated with a demand response auction:

18.5.4.1 the deadline to submit the amount of demand response capacity the demand response auction participant is willing to provide pursuant to section 18.2.1.2;

- 18.5.4.2 the deadline for a *demand response auction participant* to submit a *demand response auction deposit* in accordance with section 18.2.1.3;
- 18.5.4.3 the dates in which a *demand response auction participant* may submit *demand response auction offers* for a *demand response auction*;
- 18.5.4.4 the period over which the *IESO* shall conduct the *demand response auction*; and
- 18.5.4.5 the date of *demand response auction* post-auction reporting in accordance with sections 18.8.1 and 18.8.2.

18.6 Demand Response Auction Offers

- 18.6.1 A *demand response auction offer*:
 - 18.6.1.1 may be submitted or revised by the *demand response auction participant* on the dates specified in accordance with section 18.5.4 and the applicable *market manual*;
 - 18.6.1.2 shall only be applicable to the *commitment period* for which a *demand response auction participant* has submitted a *demand response auction offer*, in accordance with the applicable *market manual*; and
 - 18.6.1.3 shall be time stamped by the *IESO* when received.
- 18.6.2 A *demand response auction offer* shall only be submitted in respect of a given *demand response auction* if:
 - 18.6.2.1 the *demand response auction participant* complies with the *demand response auction participation* requirements in section 18.2.1; and
 - 18.6.2.2 the *demand response auction participant* has not been disqualified from full or partial participation in the *demand response auction* in accordance with section 19.4.8, 19.5.4 and the applicable *market manual*.
- 18.6.3 A *demand response auction offer* may include up to twenty *price-quantity* pairs for each *commitment period* and shall comply with the following:
 - 18.6.3.1 the *demand response auction offer* shall be for and applicable over an entire *commitment period* associated with a *demand response auction*;
 - 18.6.3.2 the *demand response auction offer* price in any *price-quantity* pair shall:

- be expressed in dollars and whole cents per MW-day of *demand response capacity* to be provided in each hour of the availability window throughout the *commitment period* associated with that *demand response auction*;
- be greater than or equal to \$0.00/MW-day;
- not exceed the applicable maximum *demand response auction clearing price*; and
- increase as the associated *demand response auction offer quantity* increases.

18.6.3.3 the *demand response auction offer quantity* in any *price-quantity pair* shall be expressed in MW to not more than one decimal place and the total offered quantity shall not exceed the qualified *demand response capacity* of the resource, determined through the submission of *demand response capacity* that a *demand response auction participant* is willing to provide in accordance with section 18.2.1.2; and

18.6.3.4 the *demand response auction offer* shall indicate whether the *demand response auction participant* is willing to clear an auction with the full amount of *demand response capacity offered* in a lamination or a partial amount of the *demand response capacity offered* in a lamination, in accordance with the applicable *market manual*.

18.7 Demand Response Auction Clearing Prices and Quantities

18.7.1 The IESO shall determine a *demand response auction demand curve* to be utilized for each *commitment period* in an auction year, based upon the *demand response parameters* detailed in the pre-auction report pursuant to section 18.5 and in accordance with the applicable *market manual*.

18.7.2 The IESO shall, in each *demand response auction*, determine for each *commitment period* the *demand response auction clearing price* in accordance with the applicable *market manual*.

18.7.3 The IESO shall, in each *demand response auction*, determine for each *commitment period* the *demand response capacity obligation* for each *demand response auction participant* and its resources in accordance with section 18.7.5 and the applicable *market manual*.

18.7.4 The IESO shall, for each *demand response auction*, determine for each *commitment period* associated with the *demand response auction*:

18.7.4.1 the demand response auction clearing prices for each electrical zone identified in the pre-auction report; and

18.7.4.2 the zonal demand response capacity obligation for each demand response auction participant,

in accordance with this section 18.7.

18.7.5 If two or more demand response auction participants submit a demand response auction offer at the same price, for the last available quantity, the demand response auction offer with the earlier time stamp shall be selected as the successful demand response auction offer, in accordance with the applicable market manual.

18.8 Post-Auction Notification and Publication

18.8.1 The IESO shall, as soon as practicable following the conclusion of a demand response auction, publish the following in accordance with the applicable market manual:

18.8.1.1 the demand response auction clearing price;

18.8.1.2 the amount of demand response capacity that has been procured; and

18.8.1.3 those demand response auction participants who received a demand response capacity obligation and all respective demand response capacity obligations.

18.8.2 The IESO shall, following the conclusion of a demand response auction, issue post-auction reports to each demand response auction participant by the date specified in the pre-auction report, to detail the demand response capacity offers that have cleared in the demand response auction and the associated demand response capacity obligations for each commitment period in accordance with the applicable market manual.

Chapter 11

commitment period means the length of time for which a demand response market participant is required to fulfill its demand response capacity obligation by making its demand response capacity available for dispatch through the day-ahead commitment process and energy market;

demand response auction clearing price means the price at which the *demand response auction* clears for a commitment period and will be quoted in \$/MW-day;

demand response auction offer means an offer(s) , submitted by a *demand response auction participant*, in the form of a *price-quantity pair(s)* to provide *demand response capacity* in a *demand response auction*;

demand response auction reference price means the estimated costs necessary to support the sufficient return on investment for a new, representative *demand response* resource, net of expected *ancillary services* revenues and avoided energy costs;

demand response target capacity means the amount of *demand response capacity* which the *IESO* seeks to clear through the *demand response auction*;

demand response zonal constraints means the minimum or maximum amount of *demand response capacity* that the *demand response auction* seeks to clear for a specific electrical zone as detailed by the *IESO* in each pre-auction report;

PART 5 – IESO BOARD DECISION RATIONALE

Tab C



Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00416-R02		
Subject:	Demand Response Auctions		
Title:	Demand Response Auctions – Energy Market Participation		
Nature of Proposal:	☒ Alteration	☐ Deletion	☒ Addition
Chapters:	7 & 11	Appendix:	
Sections:	Chapter 7, sections 19.4 (new), 19.5 (new), sections 3.3A, 3.4, 5.5, Chapter 11 definitions		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review	June 30, 2015
2.0	Publish for Stakeholder Review and Comment	July 9, 2015
3.0	Submitted for Technical Panel Vote	August 4, 2015
4.0	Recommended by Technical Panel; Submitted for IESO Board Approval	August 11, 2015
Approved Amendment Publication Date:		
Approved Amendment Effective Date:		

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

The IESO proposes to amend the market rules in order to implement a Demand Response Auction to allow for the future competitive procurement and development of demand response in Ontario.

Specifically, this amendment proposal will establish energy market participation requirements for:

- Hourly demand response resources with a demand response capacity obligation: and
- Dispatchable load facilities with a demand response capacity obligation.

This proposal is based on the Demand Response Auction stakeholder engagement.

Further information on the Demand Response Auction stakeholder engagement can be found on the IESO's website at:

<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Demand-Response-Auction.aspx>

Background

Demand response auction participants whose offers clear a demand response auction will be required to deliver on a demand response capacity obligation through participation in the energy market with either an hourly demand response resource or with a dispatchable load facility. Both resource types will be required to submit bids into the energy market (day-ahead and real-time) for every hour of the availability window. The bids submitted by resources with a demand response capacity obligation will allow the IESO dispatch process to select the facilities when their bids represent the least-cost resource, to balance supply and demand.

In order for the IESO to activate an hourly demand response resource, the IESO will issue both standby and activation notices to the applicable demand response market participant. Hourly demand response resources will operate within the energy market by providing four hour blocks of demand response when activated. A dispatchable load facility with a demand response capacity obligation will be dispatched through the energy market the same way a dispatchable load is dispatched under the current market rules. Both types of resources will be obligated to fulfill their demand response capacity obligation by bidding into the market for every hour of the availability window at a price that is above a demand response bid price threshold (defined in Chapter 11 below) and below the maximum market clearing price.

Discussion

The following proposed market rules specify the energy market participation requirements associated with demand response capacity obligations for an hourly demand response resource or a dispatchable load facility.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Chapter 7

It is proposed to further expand new section 19, “Demand Response Market Participants with Demand Response Capacity Obligations” in Chapter 7 of the market rules as follows:

Section 19.4 Energy Market Participation for Hourly Demand Response Resources with Demand Response Capacity Obligations

- Insert section 19.4.1 to specify that hourly demand response resources are eligible for an availability payment associated with their demand response capacity obligation in accordance with the applicable market manual. Availability payments may be offset by non-performance charges in accordance with section 4.7J of Chapter 9 (refer to MR-00416-R03: Non-Performance Charges & Settlement).

Standby and Activation Notices

- Insert section 19.4.2 to require the IESO to issue a standby notice by 07:00 EST to a participant with an hourly demand response resource, when a resource has a day-ahead schedule of record or pre-dispatch schedule that is less than the participant’s energy bid for at least four consecutive hours during the availability window of the dispatch day.
- Insert section 19.4.3 to obligate a participant to remove its resources bids as soon as practicable and before 09:00 EST if they did not receive a standby notice. If the participant’s bids are not removed, the IESO will consider the resource available for activation.
- Insert section 19.4.4 to detail the requirements for the IESO to send a participant specific private activation notice prior to activation, in accordance with the applicable market manual, if the resource has a pre-dispatch schedule that is less than the bid for four consecutive hours during the dispatch day availability window, and a standby notice was issued or the demand response market participant has not removed its bids in accordance with section 19.4.3.
- Insert section 19.4.5 to obligate the participants to comply with activation notices sent by the IESO in accordance with section 19.4.4. If the activation would endanger the safety of any person, damage equipment, or violate any applicable law the participant must notify the IESO as soon as possible if it intends not to comply with the activation.
- Insert section 19.4.6 to specify that if a participant does not comply with an activation notice, the participant may be subject to non-performance charges and that the IESO may take action in accordance with proposed new sections 19.2.2 and 19.2.3 as part of MR-00416-R00, which allows the IESO to remove or refuse continued participation of a resource that has a negative reliability impact. Participants may also be subject to compliance enforcement actions in accordance with section 6 of Chapter 3.
- Insert section 19.4.7 to obligate a participant to notify the IESO if the resource will operate in a manner that differs materially from the activation notice. The notification process to the IESO and what constitutes a material difference will be described in the applicable market manual.
- Insert section 19.4.8 to allow the IESO to disqualify a participant’s hourly demand response resource from future demand response auction participation due to poor performance against activation notices.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Non-performance Events for Hourly Demand Response Resources

- Insert section 19.4.9 to allow participants to submit non-performance events when the demand response capacity is unavailable. A participant is obligated to inform the IESO of any non-performance event. The notification process will be outlined in the applicable market manual.
- Insert section 19.4.10 to obligate a participant to reflect any non-performance events in its bid by reducing the amount of demand response capacity it reasonably expects it can provide due to any non-performance event.

Activation Testing for Hourly Demand Response Resources

- Insert section 19.4.11 to allow the IESO to conduct activation testing to ensure that a demand response capacity obligation is deliverable by the participant. A maximum of two tests will be performed per commitment period.
- Insert section 19.4.12 to specify that a failed activation test will be treated the same as non-compliance to an activation notice and that a participant shall be subject to non-performance charges and compliance sanctions in accordance with section 6.3 of Chapter 3.
- Insert section 19.4.13 to obligate the IESO to notify participants day-ahead of test activations and to perform the test activations during the availability window.
- Insert section 19.4.14 to specify that the test activation will be activated as per the hourly demand response resource activation outlined in this section 19.4
- Insert section 19.4.15 to specify that a resource will not be eligible for any costs related to test activations during a commitment period.

Section 19.5 Energy Market Participation for Dispatchable Loads with Demand Response Capacity Obligations

- Insert section 19.5.1 to specify that participants with demand response capacity obligations participating with a dispatchable load facility are eligible for an availability payment associated with their demand response capacity obligation in accordance with the applicable market manual. Availability payments may be offset by non-performance charges in accordance with section 4.7J of Chapter 9 (refer to MR-00416-R03: Non-Performance Charges & Settlement).

Dispatch of Resources

- Insert section 19.5.2 to specify that the IESO will schedule a dispatchable load in the real-time market and issue dispatch instructions in accordance with Chapter 7. There will be no change in how a dispatchable load with a demand response capacity obligation is scheduled or dispatched in the energy market.
- Insert section 19.5.3 to obligate a dispatchable load with a demand response capacity obligation to comply with dispatch in accordance with Chapter 7.
- Insert section 19.5.4 to allow the IESO to disqualify a dispatchable load facility from future auction participation due to poor performance against dispatch instructions.

Outage Notification Requirements for Dispatchable Loads with a Demand Response Capacity Obligation

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- Insert section 19.5.5 to obligate dispatchable loads to comply with the outage notification process outlined in Chapter 5.
- Insert section 19.5.6 to obligate a dispatchable load to reflect and take into account any outage in its bid by reducing the amount of demand response capacity it reasonably expects it can provide due to any outage. This reference to outages includes, but is not limited to facility, distributor and transmitter outages.

Activation Testing for Dispatchable Load Resources

- Insert section 19.5.7 to allow the IESO to conduct activation testing to ensure that a demand response capacity obligation is deliverable by the participant. A maximum of two tests will be performed per commitment period.
- Insert section 19.5.8 to specify that a failed activation test will be treated the same as non-compliance to an activation notice and that a participant shall be subject to non-performance charges and compliance sanctions in accordance with section 6.3 of Chapter 3.
- Insert section 19.5.9 to obligate the IESO to notify participants day-ahead of test activations and to perform the test activations during the availability window.
- Insert section 19.5.10 to specify that the test activation shall occur in accordance with dispatch instructions for a dispatchable load facility.
- Insert section 19.5.11 to specify that facility will not be eligible for compensation for any costs related to test activations during a commitment period.

Chapter 7 – Integration With Existing Market Rules

Section 3.3A – Dispatch Data Submissions for the Day-Ahead Commitment Process

- Section 3.3A.2 outlines the dispatch data submission timelines and requirements for resources that intend to participate in the day-ahead commitment process and be eligible for dispatch by the IESO. Hourly demand response resources will be required to submit demand response energy bids, therefore;
 - Section 3.3A.2 has been amended to include “hourly demand response resource.”

Section 3.4 – The Form of Dispatch Data

- Section 3.4 outlines the requirements, obligations and forms of dispatch data. Demand response market participants submitting bids for either an hourly demand response resource or a dispatchable load facility with a demand response capacity obligation must comply with the obligations under section 3.4. The following changes are proposed in section 3.4:
 - Insert section 3.4.16 to outline that a demand response market participant with an hourly demand response resource will submit a demand response energy bid to reduce its energy consumption during the availability window of a commitment period.

Section 5.5 – Release of Pre-dispatch Schedule Information

- Section 5.5.2 outlines the information sent to specific registered market participants that have submitted valid bids or offers for the dispatch day. Section 5.5.2 has been amended to include

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

an hourly demand response resource to ensure they receive the applicable pre-dispatch schedule information.

Chapter 11 – Defined Terms

- “demand response energy bid” means a bid in the day-ahead commitment process and the real-time energy market, greater than the demand response bid price threshold and less than the MMCP, by a demand response market participant entered for either a dispatchable load or an hourly demand response resource to fulfill a demand response capacity obligation availability requirement;

Note: demand response energy bids must reflect the amount of demand response capacity available for reduction. Therefore, an hourly demand response resource must modify its bid to reasonably reflect the amount of demand response capacity available, in accordance with existing section 3.3.8 of Chapter 7.

- “demand response bid price threshold” means the price at which a demand response energy bid shall exceed, in the day-ahead commitment process and the real-time energy market, to be considered a demand response energy bid in accordance with the applicable market manual;
- In addition the IESO proposes to amend the definition of “dispatchable load” to specify that an hourly demand response resource is not a dispatchable load facility.

PART 4 – PROPOSED AMENDMENT

Chapter 7

19. Demand Response Market Participants with Demand Response Capacity Obligations

19.4 Energy Market Participation for Hourly Demand Response Resources

19.4.1 A demand response market participant with a demand response capacity obligation participating with an hourly demand response resource shall be eligible for an availability payment in accordance with the applicable market manual. Availability payments may be offset by non-performance charges in accordance with section 4.7J of Chapter 9.

Standby and Activation Notices

19.4.2 If an hourly demand response resource has a day-ahead schedule of record or a pre-dispatch schedule less than the resource's total bid quantity for at least four

consecutive hours during the *dispatch day* availability window, the *IESO* shall issue a **standby notice** to the applicable *demand response market participant* by 07:00 EST in accordance with the applicable *market manual*.

- 19.4.3 If the *IESO* does not issue a **standby notice** to a *demand response market participant* by 07:00 EST, the *demand response market participant* shall remove their *bids* for the *hourly demand response* resource as soon as practicable and before 9:00 EST. A *demand response market participant* that does not remove their *bids* for the *hourly demand response* resource before 9:00 EST shall comply with any corresponding activation notices issued by the *IESO* in accordance with section 19.4.5.
- 19.4.4 The *IESO* shall issue an **activation notice** to a *demand response market participant* ahead of the activation period, in accordance with the applicable *market manual* if a standby notice has been issued in accordance with section 19.4.2 or a *demand response market participant* has not removed their *bids* in accordance with section 19.4.3, and the applicable *hourly demand response resource* has a *pre-dispatch schedule* less than the resource's total *bid* quantity for at least four consecutive hours during the *dispatch day* availability window.
- 19.4.5 If a *demand response market participant* receives an **activation notice** pursuant to section 19.4.4, the *demand response market participant* shall comply with the **activation notice**, unless such a reduction would endanger the safety of any person, damage equipment, or violate any *applicable law*. In such circumstances, the *demand response market participant* shall notify the *IESO* as soon as practicable.
- 19.4.6 A *demand response market participant* may be subject to non-performance charges, and the *IESO* may take action pursuant to sections 19.2.2 and 19.2.3 if a *demand response market participant* does not comply with an **activation notice** pursuant to this section 19, in accordance with the applicable *market manual*. The *demand response market participant* may also be subject to compliance actions in accordance with section 6 of Chapter 3.
- 19.4.7 A *demand response market participant* that expects its *hourly demand response resource* to operate in a manner that differs materially from the **activation notice** issued to it in accordance with this section 19 shall notify the *IESO* as soon as possible and in accordance with the applicable *market manual*.
- 19.4.8 The *IESO* may disqualify from future participation in the *demand response auction* any *demand response market participant's hourly demand response resource* that fails to reduce its consumption when called upon in accordance with this section 19.

Non-performance Events for Hourly Demand Response Resources

- 19.4.9 A *demand response market participant* shall submit non-performance events, provided that the *demand response market participant* notifies the *IESO* as per the procedures and criteria specified in the applicable *market manual*.

19.4.10 A demand response market participant shall reduce its bid to take into account and reflect the maximum demand response capacity that it reasonably expects it can provide due to any non-performance event in a commitment period.

Activation Testing for Hourly Demand Response Resources

19.4.11 The IESO may, in accordance with the applicable market manual, direct a demand response market participant with a demand response capacity obligation to perform activation testing for each hourly demand response resource up to a maximum of two test activations per commitment period to verify that a demand response capacity obligation is deliverable by the demand response market participant.

19.4.12 If a demand response market participant fails activation testing performed pursuant to section 19.4.11, the demand response market participant shall be subject to non-performance charges in accordance with the applicable market manual. Failure during activation testing shall be considered a breach of the market rules and may result in sanctions in accordance with section 6.2 of Chapter 3.

19.4.13 The IESO shall provide a demand response market participant day-ahead notification of test activations and the test activation shall occur within the availability window of a commitment period.

19.4.14 The test activation shall occur in accordance with the hourly demand response resource activation process specified in this section 19.4.

19.4.15 The hourly demand response resource shall not be entitled to compensation for any costs related to any valid test activation conducted during a commitment period pursuant to this section 19.4.

19.5 Energy Market Participation for Dispatchable Loads with Demand Response Capacity Obligations

19.5.1 A demand response market participant with a demand response capacity obligation participating as a dispatchable load shall be eligible for an availability payment, in accordance with the applicable market manual. Availability payments may be offset by non-performance charges in accordance with section 4.7J of Chapter 9.

Dispatch of Resources

19.5.2 The IESO shall schedule a dispatchable load with a demand response capacity obligation in the real-time market and issue a dispatch instruction to a dispatchable load with a demand response capacity obligation in accordance with Chapter 7.

19.5.3 A dispatchable load with a demand response capacity obligation shall comply with IESO dispatch instructions in accordance with Chapter 7.

19.5.4 The IESO may disqualify from future participation in the demand response auction any dispatchable load facility that fails to reduce its consumption when called upon in accordance with this section 19.

Outage Notification Requirements for Dispatchable Loads with a Demand Response Capacity Obligation

19.5.5 Each dispatchable load with a demand response capacity obligation shall comply with the outage notification requirements of Chapter 5.

19.5.6 A dispatchable load with a demand response capacity obligation shall reduce its bid to take into account and reflect the maximum demand response capacity that it reasonably expects it can consume due to any outage.

Activation Testing for Dispatchable Load Resources

19.5.7 The IESO may, in accordance with the applicable market manual, direct a dispatchable load with a demand response capacity obligation to perform activation testing for each resource up to a maximum of two activation tests per commitment period to verify that a demand response capacity obligation is deliverable by the demand response market participant.

19.5.8 If a demand response market participant fails activation testing performed pursuant to section 19.5.7, the demand response market participant shall be subject to non-performance charges in accordance with the applicable market manual. Failure during activation testing shall be considered a breach of the market rules and may result in sanctions in accordance with section 6.2 of Chapter 3.

19.5.9 The IESO shall provide a dispatchable load with a demand response capacity obligation day-ahead notification of test activation and the test activation shall occur within the availability window of a commitment period.

19.5.10 The test activation shall occur in accordance with the dispatch instructions for a dispatchable load facility specified in this section 19.5.

19.5.11 The dispatchable load facility shall not be entitled to compensation for any costs related to any valid test activation conducted during a commitment period pursuant to this section 19.5.

3.3A Dispatch Data Submissions for the Day-Ahead Commitment Process

- 3.3A.1 Subject to section 1.7, defining when the day-ahead commitment process shall function, this section 3.3A shall be in effect.
- 3.3A.2 Subject to the standing *dispatch data* provisions of section 3.3.9, each *registered market participant* that intends its *dispatchable generation facility*, including a *generation facility* that intends to operate in *segregated mode of operation* in real-time, ~~or~~ *dispatchable load facility*, or *hourly demand response resource* to be eligible for *dispatch* by the IESO for a given *dispatch hour* of a *dispatch day* shall, after 06:00 EST but before 10:00 EST of the *pre-dispatch day*, submit *dispatch data* for those *dispatch hours* of the *dispatch day* including, where applicable, the daily *energy limit* for the *facility* for the *dispatch day*. The *registered market participant* may then only revise such initial *dispatch data* as permitted by this section 3.3A.

3.4 The Form of Dispatch Data

- 3.4.1 *Dispatch data* shall relate to a specified *dispatch hour* of the *dispatch day* and to a specified *registered facility*, shall comply with the applicable provisions of this section and sections 3.5 to 3.9 and shall take one of the following forms:

- 3.4.1.1 for a *dispatchable generation facility*, an *offer* to provide a *physical service* to the appropriate *real-time market*. *Offers* accepted result in sales in the *real-time market* only to the extent that, for the *registered market participant* submitting such *offers*, the total value of the *physical services* provided to the *real-time markets* is greater than the total value of the *physical bilateral contract quantities* notified to the IESO in respect of that *registered market participant* pursuant to Chapter 8;
- 3.4.1.1.1 for a *dispatchable generation facility* that is classified as *variable generation*, an *offer* to provide a *physical service* to the appropriate *real-time market* reflecting its *generation facility's* full capacity available for production, determined in accordance with the applicable *market manual*.
- 3.4.1.2 for a *dispatchable load facility*, a *bid* to take *energy* from the *energy market*. *Bids* accepted result in purchases in the *real-time market* only to the extent that, for the *registered market participant* submitting such *bids*, the total value of the *physical services* taken from the *real-time markets* is greater than the total value of *physical bilateral contract quantities* notified to the IESO in respect of that *registered market participant* pursuant to Chapter 8;
- 3.4.1.2A [Intentionally left blank – section deleted]

- 3.4.1.3 for a *self-scheduling generation facility*, a *self-schedule* for the provision of *energy* to the *energy market*. *Energy* actually provided by a *self-scheduling generation facility* results in sales in the *real-time market* only to the extent that, for the *registered market participant* designated for that *self-scheduling generation facility*, the total value of *energy* provided to the *real-time market* is greater than the total value of *physical bilateral contract quantities* notified to the *IESO* in respect of that *registered market participant* pursuant to Chapter 8;
- 3.4.1.4 for an *intermittent generator*, a forecast of *energy* expected to be provided to the *energy market*. *Energy* actually provided by an *intermittent generator* results in sales in the *real-time market* only to the extent that, for the *registered market participant* designated for such *intermittent generator*, the total value of *energy* provided to the *real-time market* is greater than the total value of *physical bilateral contract quantities* notified to the *IESO* by that *registered market participant* pursuant to Chapter 8;
- 3.4.1.4A for a *transitional scheduling generator*, a forecast schedule for the provision of *energy to the energy market*; and
- 3.4.1.4B [Intentionally left blank – section deleted]
- 3.4.1.5 [Intentionally left blank – section deleted]
- 3.4.1.6 for a *demand response market participant with an hourly demand response resource*, a *demand response energy bid to reduce its energy consumption during a specified availability window and commitment period in accordance with the applicable market manual*.

5.5 Release of Pre-dispatch Schedule Information

- 5.5.1 The *IESO* shall release the initial *pre-dispatch schedule* and associated projections of *market schedules* and shall publish *market prices* by 16:00 EST of each *pre-dispatch day*, and shall release any revised *pre-dispatch schedules* and projections of *market schedules* and shall publish *market prices* as soon as practical after they are determined. The information to be released to *market participants* is described in this section 5.5.
- 5.5.2 For each *registered facility* that is a *boundary entity*, a *dispatchable load facility*, ~~or~~ a *dispatchable generation facility* or an *hourly demand response resource* in respect of which a valid *bid* or *offer* for at least one *dispatch hour* of the applicable *dispatch day* has been submitted, the *IESO* shall release the following information only to the *registered market participant* for that *registered facility*:
- 5.5.2.1 the *pre-dispatch schedule* for that *registered facility*;

- 5.5.2.2 the projected market schedule for that *registered facility*; and
- 5.5.2.3 [Intentionally left blank]
- 5.5.2.4 any requirement of that *registered facility* to submit an *offer* or *bid* under a *reliability must-run contract* and the expected scheduled use of that *registered facility* under *contracted ancillary service* contracts.

Chapter 11

demand response energy bid means a *bid* in the day-ahead commitment process and the *real-time energy market*, greater than the *demand response bid price threshold* and less than the *MMCP*, by a *demand response market participant* entered for either a *dispatchable load* or an *hourly demand response* resource to fulfill a *demand response capacity obligation* availability requirement;

demand response bid price threshold means the price at which a *demand response energy bid* shall exceed, in the day-ahead commitment process and the *real-time energy market*, to be considered a *demand response energy bid* in accordance with the applicable *market manual*;

dispatchable load means a *load facility* which is subject to *dispatch* by the *IESO* and whose level is selected or set based on the price of *energy* in the *real-time market*, and excludes *hourly demand response resources*;

PART 5 – IESO BOARD DECISION RATIONALE

Tab D



Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00416-R03		
Subject:	Demand Response Auctions		
Title:	Demand Response Auctions – Non-Performance Charges & Settlement		
Nature of Proposal:	☒ Alteration	☐ Deletion	☒ Addition
Chapters:	7 & 9	Appendix:	
Sections:	Chapter 7, sections 18.4.4 (new), Chapter 9, sections 1.1.2.17, 2.1.1A.6 (new), 4.7J (new), 4.8.3.3 (new), 4.8.4.3 (new)		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review	August 4, 2015
2.0	Publish for Stakeholder Review and Comment	August 13, 2015
3.0	Submitted for Technical Panel Vote	September 15, 2015
4.0	Recommended by Technical Panel; Submitted for IESO Board Approval	September 22, 2015
Approved Amendment Publication Date:		
Approved Amendment Effective Date:		

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

The IESO proposes to amend the market rules in order to enable the settlement of amounts associated with obligations arising from a demand response auction, including availability payments, non-performance charges, and elected buy-outs.

This proposal is based on the Demand Response Auction stakeholder engagement.

Further information on the Demand Response Auction stakeholder engagement can be found on the IESO's website at:

<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Demand-Response-Auction.aspx>

Background

MR-00416-R03 will enable the settlement of Demand Response (DR) capacity obligations that are obtained through DR auctions.

For further background please see MR-00416:R00-R02.

Discussion

The following proposed market rules enable the settlements process associated with DR capacity obligations for hourly demand response (HDR) resources and dispatchable loads. Specifically, the proposed amendments enable the recovery of cost for the settlement of DR capacity obligations via an uplift charge using the same methodology to recover costs in the capacity based demand response (CBDR) program. In addition the proposed market rules specify payments and non-performance charges applicable to DR market participants with DR capacity obligations.

The proposed market rules will also specify the conditions when the IESO will draw on the DR auction deposit for a DR auction participant who has not fulfilled the eligibility requirements for energy market participation.

Chapter 7

Section 18.4 Demand Response Auction Deposits

It is proposed to insert new section 18.4.4 (continuation of section 18.4 on "Demand Response Auction Deposits" – MR-00416-R00) to specify that if a DR auction participant has not fulfilled the eligibility requirements for energy market participation (as specified in sections 19.2 and 19.3 of MR-00416-R00) and has not elected to buy-out of the DR capacity obligation pursuant to new proposed section 4.7J.3 (see below), that the participant shall forfeit its deposit, at the discretion of the IESO.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Chapter 9

Section 1.1: Application and Purpose

It is proposed to amend the market rules as follows:

- Amend sub-section 1.1.2.17 to expand the rights and obligations of the IESO and market participants in determining billing and payment with respect to financial obligations arising from DR capacity obligations.

Section 2: Settlement Data Collection and Management

DR Measurement Data:

Currently the market rules only permit a registered wholesale meter to be used for determining settlement amounts, with some limited exceptions. Not all HDR resources will have registered wholesale meters that meet IESO standards, and meeting the existing wholesale metering requirements of Chapter 6 of the market rules would be a significant barrier to entry into the IESO-administered markets.

In those instances where an HDR resource does not have a registered wholesale meter, they will be obligated to submit measurement data to enable the IESO to determine compliance with a DR capacity obligation.

It is proposed to amend section 2.1 “Metering and Metering Responsibilities” of Chapter 9 of the market rules as follows:

- Insert sub-section 2.1.1A.6 to allow the IESO to determine settlement amounts related to DR capacity obligations on the basis of measurement data submitted to the IESO which may not be from a registered wholesale meter.

Section 4: Non-Hourly Settlement Amounts

It is proposed to insert new section 4.7J “Demand Response Capacity Obligations” in Chapter 9 of the market rules as follows:

- Insert section 4.7J.1 to obligate the IESO to remit availability payments, if any, to the applicable DR market participant in the time and manner specified in the applicable market manual.

In accordance with sections 19.4.1 and 19.5.1 (refer to MR-00416-R02: Energy Market Participation) participants with a DR capacity obligation will receive an availability payment every month of the commitment period. The availability payment will be determined as follows:

$$= DR \text{ Auction Clearing Price} \times DR \text{ Capacity Obligation} \times \# \text{ of Business Days in Month}$$

The method for recovery of total availability payments from the market will be outlined in the applicable market manual, and will be consistent with the methodology used to calculate global adjustment distribution charges for class A and B loads. This is the same method used for the CBDR program.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Insert section 4.7J.2 – Non-Performance Charges:

Availability payments may be offset by non-performance charges which are detailed in this section 4.7J.2. Non-performance charges have been created to incent DR market participants to fulfill their DR capacity obligation. The four types of charges include: (i) availability charges; (ii) dispatch charges; (iii) administration charges and (iv) capacity charges. DR market participants/DR auction participants who cannot fulfil their DR capacity obligation may elect to “buy-out” all or a portion of their DR capacity obligations.

- Insert section 4.7J.2 to specify that a DR market participant shall, in accordance with the applicable market manual, be subject to the following non-performance charges for failing to meet the requirements of a DR capacity obligation:

DR Availability Charges:

- Insert section 4.7J.2.1 to specify that a DR market participant shall be subject to an availability charge for every hour of the availability window the participant fails to submit DR energy bids for the amount of their respective DR capacity obligation in either the day-ahead commitment process or in the real-time energy market. For HDR resources, DR energy bids that are part of at least a four consecutive hour block during the availability window will be deemed as available.
 - If a DR market participant does not meet their availability requirement, the following charge will be applied:

$$\text{Unavailable MWh} \times \frac{\text{DR Auction Clearing Price}}{\text{Hours per Day in Avail. Window}} \times \text{Non-Performance Factor}$$

- The “Non-Performance Factor” will be determined in relation to the periods of peak demand when DR is most needed. “Non-Performance Factors” will be outlined in the applicable market manual.

DR Dispatch Charges:

- Insert section 4.7J.2.2 to specify that a DR market participant participating with an HDR resource shall be subject to a dispatch charge for failing to comply with the activation notice or activation notice resulting from an activation test in accordance with section 19.4.5 and 19.4.12.
 - If a participant fails to comply with an activation notice, the following dispatch charge will be applied:

$$\text{DR Scheduled} \times \frac{\text{DR Auction Clearing Price}}{\text{Hours per Day in Avail. Window}} \times \text{Non-Performance Factor}$$

- The IESO will utilize the “High 15 of 20 with an In-day Adjustment Baseline” methodology to calculate compliance with dispatch, with a 15% compliance deadband. This is the same methodology used to measure compliance in the CBDR program.

DR Administration Charges:

- Insert section 4.7J.2.3 to specify that a DR market participant participating with an HDR

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

resource shall be subject to an administration charge for failing to submit measurement data to the IESO in the time and manner specified by the IESO.

- Participants will be required to submit monthly measurement data to the IESO on the sixth business day before the end of the following month. The IESO will inform participants within three business days of any errors in the submitted data. After receiving such notification from the IESO the participant will have another three business days to re-submit the measurement data (without any errors) in order to avoid an administration charge. These timelines will be detailed in the applicable market manual.
- The following administration charge will be applied for failing to comply with section 4.7J.2.3:

DR Capacity Obligation (MW) × DR Auction Clearing Price (\$/MW-day) × # of Business Days in the Month

DR Capacity Charges:

- Insert section 4.7J.2.4 to specify that a DR market participant participating with an HDR resource that fails to deliver capacity with an activation notice or activation test will be subject to a DR capacity charge.
 - The IESO will measure compliance to deliver capacity through an activation notice or activation test for an hourly demand response resource with the “High 15 of 20 with an In-day Adjustment Baseline” with a 20% upper band. The charge will be based on the full availability payment from the month of activation.
- Insert section 4.7J.2.5 to specify that a DR market participant participating with a dispatchable load that fails to deliver capacity through an activation test will be subject to a DR capacity charge.
- The charge will be based on one month’s availability payment, calculated as follows:

DR Capacity Obligation (MW) × DR Auction Clearing Price (\$/MW-day) × # of Business Days in the Month

DR “Buy-Out” Option:

DR market participants or DR auction participants who cannot fulfill their DR capacity obligation may elect to “buy-out” a portion, or all of their DR capacity obligations.

- Insert section 4.7J.3 to specify that a DR market or auction participant may elect to be subject to a buy-out charge if they wish to reduce all, or a portion of their DR capacity obligation for the remainder of their commitment period. Participants can buy-out their entire obligation or a portion of their obligation, provided the remaining portion is at least 1 MW.
 - The IESO’s buy-out charge will be calculated as follows:

(Availability Payments – Availability Charges) × 50%

The availability payments will be calculated as described in section 4.7J.1 and the

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

availability charge will be calculated as described in section 4.7J.2.1, with the exception that the DR capacity obligation used in the calculations will equal the amount of MW that are being reduced.

Insert section 4.7J.4:

- Insert section 4.7J.4 to specify that the IESO may audit a DR market participant's submitted measurement data and supporting information, and that the participant shall provide such information in the time and manner specified by the IESO. If the IESO's audit of the DR market participant's DR measurement data and supporting information indicates that the actual data differed from the submitted data, the IESO shall recover from or distribute to a DR market participant any resulting over or under payment as applicable. Any amounts recovered or distributed to a DR market participant shall be correspondingly distributed to or recovered from market participants in accordance with proposed section 4.8.3 or 4.8.4 below.

Section 4.8 – Additional Non-Hourly Settlement Amounts:

It is also proposed to insert a new section 4.8.3.3 and 4.8.4.3 under "Additional non-hourly settlement amounts" of Chapter 9 of the market rules as follows:

- Insert section 4.8.3.3 to obligate the IESO, at the end of each energy market billing period, to recover from market participants, as specified in the applicable market manual, any compensation paid in that energy market billing period to DR market participants in accordance with section 4.7J related to the settlement of a DR capacity obligation; and
- Insert section 4.8.4.3 to obligate the IESO, at the end of each energy market billing period, to distribute to market participants, as specified in the applicable market manual, any adjustments to DR market participants in accordance with section 4.7J related to the settlement of a DR capacity obligation.

PART 4 – PROPOSED AMENDMENT

Chapter 7

18.4 Demand Response Auction Deposits

18.4.4 In the event a demand response auction participant has not satisfied the applicable eligibility requirements specified in sections 19.2 and 19.3 of Chapter 7 and has not elected to buy-out the demand response capacity obligation in accordance with section 4.7J.3 of Chapter 9, the demand response auction participant shall, at the IESO's sole discretion, forfeit its demand response auction deposit.

Chapter 9

1.1 Application and Purpose

1.1.1 This chapter applies to:

1.1.1.1 the *IESO*; and

1.1.1.2 market participants.

1.1.2 This chapter sets out the respective rights and obligations of the *IESO* and of *market participants* in determining, billing for and effecting payment in respect of financial obligations arising from the *IESO-administered markets*, other provisions of the *market rules*, the *Electricity Act, 1998* and the *Ontario Energy Board Act, 1998*, including the following:

1.1.2.1 [Intentionally left blank – section deleted]

1.1.2.2 the *energy market*;

1.1.2.3 the *operating reserve market*;

1.1.2.4 congestion management;

1.1.2.5 *transmission rights (TRs)*;

1.1.2.6 [Intentionally left blank – section deleted]

1.1.2.7 *operating deviations*;

1.1.2.8 *ancillary services* and *reliability must-run contracts*;

1.1.2.9 *transmission service charges* and *connection charges* collected by the *IESO*;

1.1.2.10 rural rate protection;

1.1.2.11 the *IESO administration charge*;

1.1.2.12 penalties and fines;

1.1.2.13 any *debt retirement charge*;

1.1.2.14 rebates and other payments arising from market power mitigation measures;

1.1.2.15 the day-ahead commitment process;

1.1.2.16 forecasting services relating to *variable generation*; and

- 1.1.2.17 the *capacity based demand response program*, ~~and~~ *demand response pilot program* and demand response capacity obligations.
-

2. Settlement Data Collection and Management

2.1 Metering and Metering Responsibilities

2.1.1 Subject to section 2.1.1A, every *meter* utilised for determining *settlement amounts* according to this Chapter must be a *registered wholesale meter (RWM)*.

2.1.1A Nothing in section 2.1.1 shall be construed as requiring the *IESO* to determine *settlement amounts* on the basis of an *RWM* in circumstances where:

2.1.1A.1 it is permitted to use another *meter* for this purpose pursuant to section 3.1.4A; ~~or~~

2.1.1A.2 in circumstances where the *IESO* has determined that determination of *settlement amounts* using a *metering installation* whose registration has expired is required for the efficient operation of the *IESO-administered markets*; ~~or~~

2.1.1A.3 [Intentionally left blank – section deleted]

2.1.1A.4 the *IESO* has not permitted the use of the *RWM* for determining *settlement amounts* for the reason specified section 4.2.2A of Chapter 6; ~~or~~

2.1.1A.5 the *IESO* is determining *settlement amounts* related to the *capacity based demand response program* specified in section 17 of Chapter 7 using a measurement and verification plan submitted and approved under section 17.2.1.2 of Chapter 7; ~~or~~

2.1.1A.6 the *IESO* is determining *settlement amounts* related to *demand response capacity obligations* using measurement data submitted by *demand response market participants* with an *hourly demand response resource*.

4. Non-hourly Settlement Amounts

4.7J Demand Response Capacity Obligations

4.7J.1 The IESO shall remit an availability payment associated with a demand response capacity obligation, if any, to the applicable demand response market participant, in the manner specified in the applicable market manual.

4.7J.2 A demand response market participant with a demand response capacity obligation shall, in accordance with the applicable market manual, be subject to the following non-performance charges if the demand response market participant does not satisfy the requirements of its demand response capacity obligation:

Demand Response Availability Charges

4.7J.2.1 A demand response market participant shall be subject to an availability charge for every hour of the availability window it fails to submit demand response energy bids in the amount of their demand response capacity obligation in either the day-ahead commitment process or in the real-time energy market.

Demand Response Dispatch Charges

4.7J.2.2 A demand response market participant participating with an hourly demand response resource shall be subject to a dispatch charge for failure to comply with an activation notice received under section 19.4.5 of Chapter 7.

Demand Response Administration Charges

4.7J.2.3 A demand response market participant participating with an hourly demand response resource shall be subject to a demand response administration charge for failure to provide demand response measurement data to the IESO.

Demand Response Capacity Charges

4.7J.2.4 Subject to sections 19.4.5 and 19.4.12 of Chapter 7, a demand response market participant participating with an hourly demand response resource that fails to provide capacity through an activation notice or activation test, shall be subject to a demand response capacity charge.

4.7J.2.5 Subject to section 19.5.8, a demand response market participant participating with a dispatchable load that fails to provide capacity through an activation test shall be subject to a demand response capacity charge.

4.7J.3 A demand response market participant or a demand response auction participant may elect to be subject to a buy-out charge for all, or a portion of, their demand response capacity obligation in accordance with the applicable market manual, if they are unable to fulfill a demand response capacity obligation for the remaining portion of a commitment period.

4.7J.4 At any time, the IESO may audit any submitted demand response measurement data and supporting information and a demand response market participant shall provide such information in the time and manner specified by the IESO. If, as a result of such an audit, the IESO determines that actual measurement data and supporting information differed from the submitted measurement data and supporting information, the IESO shall recover from or distribute to a demand response market participant any resulting over or under payment, as applicable. Any amounts recovered or distributed to a demand response market participant shall be distributed to or recovered from market participants in accordance with sections 4.8.3 and 4.8.4.

4.8.3 The IESO shall, at the end of each energy market billing period, recover from market participants, in the manner specified in the applicable market manual, the following amounts:

4.8.3.1 any compensation for demand response market participants paid in that energy market billing period by the IESO pursuant to section 4.7H; ~~and~~

4.8.3.2 any compensation for demand response market participants paid in that energy market billing period by the IESO pursuant to section 4.7I; ~~and~~

4.8.3.3 any compensation for demand response market participants paid in that energy market billing period by the IESO pursuant to section 4.7J.

4.8.4 The IESO shall distribute to market participants, in the manner specified in the applicable market manual, the following amounts:

4.8.4.1 any adjustments to demand response market participant payments pursuant to section 4.7H; ~~and~~

4.8.4.2 any adjustments to demand response market participant payments pursuant to section 4.7I; ~~and~~

4.8.4.3 any adjustments to demand response market participant payments pursuant to section 4.7J.

PART 5 – IESO BOARD DECISION RATIONALE

Tab E



Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00416-R04		
Subject:	Prudential Support Obligations		
Title:	Demand Response Auctions – Prudential Support Obligations		
Nature of Proposal:	☒ Alteration	☐ Deletion	☒ Addition
Chapters:	2, 3, 7, 11	Appendix:	
Sections:	Chapter 2 section 5B (new), Chapter 3 section 6.3, Chapter 7 section 2.5.4, Chapter 11 definitions		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review	August 4, 2015
2.0	Publish for Stakeholder Review and Comment	August 13, 2015
3.0	Submitted for Technical Panel Vote	September 15, 2015
4.0	Recommended by Technical Panel; Submitted for IESO Board Approval	September 22, 2015
Approved Amendment Publication Date:		
Approved Amendment Effective Date:		

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Summary

The IESO proposes to amend the market rules to specify the demand response (DR) prudential support requirements for market participants with a demand response capacity obligation.

This proposal is based on the Demand Response Auction stakeholder engagement.

Further information on the Demand Response Auction stakeholder engagement can be found on the IESO's website at:

<http://www.ieso.ca/Pages/Participate/Stakeholder-Engagement/Demand-Response-Auction.aspx>

Background

The IESO's "prudential support" or collateral requirements ensure that a reasonable amount of collateral is available to cover the risk of payment defaults by market participants.

This amendment package proposes amendments for the prudential support construct for the demand response auction process.

The DR prudential support requirements will require participants with DR capacity obligations to post DR prudential support for each commitment period based on their highest monthly availability payment, less any allowable reductions.

The proposed construct for DR prudential support largely mirrors the existing prudential support requirements in chapter 2 (e.g. required provisions for letters of credit, general prudential support requirements, allowable reductions for credit ratings and good payment history).

Discussion

Market participants with a DR capacity obligation will be required to continue to adhere to the existing prudential support requirements in chapter 2 of the market rules related to their energy withdrawals in the real-time market, in addition to adhering to the new proposed section 5B – Demand Response Prudential Support requirements related to DR capacity obligations.

In order to clarify this distinction within the existing prudential support rules in chapter 2, it is proposed to amend section 5.1.1 to clarify that market participants participating solely as a DR market participant or DR auction participant, shall only be subject to the DR prudential support obligations specified in proposed new section 5B below.

It is proposed to add a new section 5B, "Demand Response Prudential Requirements" as follows:

5B.1 Purpose:

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- Insert section 5B.1.1 to specify that section 5B sets forth the nature and amount of DR prudential support that must be provided by a market participant as a condition of delivering on a DR capacity obligation obtained through a DR auction. Market participants must provide and maintain DR prudential support on an on-going basis;
- Insert section 5B.1.2 to specify that the IESO shall review the DR prudential support requirements at least once every three years, as part of the existing review of prudential support requirements as required under section 5.1.2 of the market rules;

5B.2 Market Participant Obligations:

- Insert section 5B.2 which specify the obligations on market participants:
 - 5B.2.1: initially and continually satisfy the obligations regarding the provision of DR prudential support;
 - 5B.2.2: satisfy the DR prudential support obligations prior to participating in the real-time markets;
 - 5B.2.3: provide to the IESO, on an ongoing basis, information required by the IESO for the purposes of determining a market participant's DR prudential support obligation;
 - 5B.2.4: if DR prudential support is due to expire or terminate, at least 10 business days prior to expiry/termination, the market participant must provide replacement DR prudential support;
 - 5B.2.5: where a market participant's DR prudential support has been reduced based on a market participant's credit rating or good payment history, and subsequent to the reduction being granted, the relevant credit rating or payment history has changed resulting in an increase in the market participant's DR prudential support obligation, the market participant must within five business days, post any additional DR prudential support;
 - 5B.2.6: where any part of DR prudential support otherwise ceases to be current or valid for any reason, the market participant must immediately notify the IESO, and provide within 2 business days replacement DR prudential support;
 - 5B.2.7: if the IESO draws upon part or all of DR prudential support under section 6.3.3.2 of Chapter 3 (events of default) and the remaining DR prudential support held by the IESO is less than the market participant's security obligation, the market participant must within 5 business days provide additional DR collateral.

5B.3 Calculation of DR Prudential Support Obligations:

- Insert section 5B.3.1 to specify that the IESO will determine, in accordance with the applicable market manual, a market participant's DR prudential support obligation for each commitment period based on a percentage of the highest monthly availability payment, less any allowable reductions. The percentage factor will be outlined in the applicable market manual;
- Insert section 5B.3.2 to obligate the IESO to review the DR prudential support of market participants:
 - Prior to the start of each commitment period;

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- Within two business days after it receives notice of any changes to the status of a market participant; or
- As a result of either a change in or loss of a market participant's credit rating or good payment history reduction.

Any such review may result in a change to the DR prudential support obligation, requiring a market participant to post additional collateral within five business days of the effective date of the change (5B.3.3);

5B.4 Obligation to Provide DR Prudential Support:

- Insert section 5B.4.1 specifying that a market participant must provide and maintain DR prudential support to the IESO, the value of which is at least equal to a market participant's DR prudential support obligation as determined by the IESO;
- Insert section 5B.4.2 on the acceptable forms of DR prudential support:
 - 5B.4.2.1: a guarantee or irrevocable letter of credit provided by a bank named in a Schedule to the Bank Act, S.C. 1991, c.46 or credit union licensed by the Financial Services Commission of Ontario with a minimum long-term credit rating of "A" from an IESO acceptable major bond rating agency.
 - 5B.4.3: the following provisions will apply to letters of credit:
 - Issued subject to either The Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600 or The International Standby Practices 1998;
 - The IESO shall be named as beneficiary in each letter of credit, each letter of credit shall be irrevocable, partial draws on any letter of credit shall not be prohibited and the letter of credit or the aggregate amount of all letters of credit shall be in the face amount of at least the amount specified by the IESO;
 - The only conditions for the IESO to draw on the letter of credit shall be the occurrence of an event of default by or in respect of the market participant and a certificate of an officer of the IESO that the IESO is entitled to draw on the letter of credit in the amount specified in the certificate as at the date of delivery of the certificate;
 - The letter of credit shall either provide for automatic renewal (unless the issuing bank advises the IESO at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one year. In either case it is the responsibility of the market participant to maintain the requisite amount of DR prudential support. Where the IESO is advised that a letter of credit is not to be renewed or the term of the letter of credit is to expire, the market participant shall arrange for and deliver alternative DR prudential support within the time frame mandated by the market rules so as to enable the market participant to be in compliance with the market rules; and
 - By including a letter of credit as part of its DR prudential support, the market participant represents and warrants to the IESO that the issuance of the letter of

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the market participant.

- Insert section 5B.4.4 to obligate the IESO to establish, maintain, and publish a list of financial institutions eligible to provide bank guarantees or letters of credit, in addition to establishing aggregate limits for each financial institution. This list will be the same list that is already posted on the IESO’s website for the purposes of existing section 5.7.2.1.
- Insert section 5B.4.5 to specify that the IESO shall only return excess DR prudential support within five business days of a written request by a market participant, and only after all payments and charges for the final month of a commitment period have been settled;
- Insert section 5B.4.6 to specify the minimum terms and conditions that must be included in the letter of credit (i.e. a written instrument, constitute valid and binding unsubordinated obligations to pay the IESO in accordance with the terms which relate to the obligations under the market rules, permit drawings or claims on the letter of credit, including partial drawings or claims);
- Insert section 5B.4.7 to specify that in the case of an event of default, that the IESO shall be entitled to exercise its rights and remedies set out in the market rules, including setting-off and applying DR prudential support held against the liabilities of the market participant in respect of their participation in the real-time markets;
- Insert section 5B.4.8 to specify that the IESO may in its sole discretion exercise any and all rights available under the market rules comprising the DR prudential support provided;
- Insert section 5B.4.9 to specify that a market participant agrees to pay to the IESO all reasonable costs, charges, expenses and fees incurred by the IESO or on behalf of the IESO in the realization, recovery, or enforcement of the rights and remedies of the IESO under the market rules;

5B.5 Reductions in DR Prudential Support Obligations:

- Insert section 5B.5.1 to specify that a market participant’s DR prudential support obligation may be reduced by the amounts specified in the accompanying table for a credit rating from an IESO approved bond rating agency listed in proposed section 5B.5.7;
- Insert section 5B.5.2 to specify that any recommendation made by an approved bond rating agency to “credit watch negative” shall be deemed to automatically result in a one-notch reduction for the purposes of calculating a market participant’s DR prudential support obligation;
- Insert section 5B.5.3 to obligate a market participant to immediately notify the IESO in writing upon the market participant becoming aware of a change or loss in their credit rating or decision to move their credit rating to “credit watch negative” status;
- Insert section 5B.5.4/5B.5.5 to specify that a market participant’s DR prudential support obligation may be reduced by the amounts specified in the accompanying table, based on “good payment history” in the IESO markets;
- Insert section 5B.5.6 to specify the following additional restrictions for receiving either a credit rating or good payment history reduction:
 - A market participant shall not be eligible for a good payment history reduction based

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

on an affiliate of the market participant;

- A good payment history reduction shall not be applicable where a market participant has a bond rating from an IESO approved rating agency (i.e. the credit rating will override any good payment history);
- If either a credit rating or good payment history reduction is utilized by a market participant in the physical market/existing prudential regime under section 5.8 of chapter 2, any allowable reductions in proposed section 5B will be correspondingly reduced.
- Insert section 5B.5.7 to obligate the IESO to establish, maintain, and publish a list of IESO approved bond rating agencies, based on which a market participant is eligible to receive a credit rating reduction. This list will be the same list that is already posted on the IESO's website for the purposes of existing section 5.7.2.1 (list found at: [IESO Participant Registration](#) and includes Standard and Poor's, Moody's, Dominion Bond Rating Service) .

Consequential Amendments – Chapters 2, 3, 7:

Consequential to the creation of a unique DR prudential support obligation for market participants, it is proposed to also edit section 7.1.1 of Chapter 2 to specify that the events of default relating to either prudential support, demand response security, or DR prudential support are specified in section 6.3 of Chapter 3.

In addition, it is proposed to amend section 2.5 of Chapter 7 to address financial risk associated by the transfer of registered facilities. Market participants transferring a registered facility to another owner will remain financially liable for any charges incurred until such time as the incoming owner of the registered facility has posted DR prudential support with the IESO.

Chapter 11 – New Defined Terms:

It is also proposed to add the following new defined terms in Chapter 11:

- “demand response prudential support” means the collateral provided by a market participant with a DR capacity obligation;
- “demand response prudential support obligation” means, the dollar amount of collateral required as specified by the IESO as a condition of delivering on a demand response capacity obligation obtained through a demand response auction.

PART 4 – PROPOSED AMENDMENT

Chapter 2

5. Prudential Requirements

5.1 Purpose

- 5.1.1 This section 5 sets forth the nature and amount of *prudential support* that must be provided by *market participants* as a condition of participation in the *real-time markets* or of causing or permitting electricity to be conveyed into, through or out of the *IESO-controlled grid*, and the manner in which *market participants* must provide and maintain such *prudential support* on an on-going basis in order to protect the *IESO* and *market participants* from payment defaults. *Market participants participating in the IESO-administered markets solely as a demand response market participant or demand response auction participant with a demand response capacity obligation shall be subject only to the demand response prudential support requirements in section 5B.*
- 5.1.2 The *IESO* shall review the *prudential support* requirements set out in this chapter at least once every three years. The first review shall be completed no later than September 30, 2010.

5B. Demand Response Prudential Requirements

5B.1 Purpose

- 5B.1.1 This section 5B sets forth the nature and amount of *demand response prudential support* that must be provided by *market participants* that are either *demand response auction participants* or *demand response market participants* as a condition of delivering on a *demand response capacity obligation* obtained through a *demand response auction*, and the manner in which such *market participants* must provide and maintain *demand response prudential support* on an on-going basis, in order to protect the *IESO* and *market participants* from payment defaults.
- 5B.1.2 The *IESO* shall review the *demand response prudential support* requirements set out in this chapter at least once every three years, as part of the review of the *prudential support* requirements pursuant to section 5.1.2.

5B.2 Market Participant Obligations

- 5B.2.1 Each market participant shall initially and continually satisfy the obligations set forth in this section 5B.2 with regard to the provision of demand response prudential support as a condition of delivering on a demand response capacity obligation.
- 5B.2.2 No market participant that is required to provide demand response prudential support shall participate in the real-time markets or cause or permit electricity to be conveyed into, through or out of the IESO-controlled grid unless that market participant satisfies the requirements of this section.
- 5B.2.3 Each market participant shall provide to the IESO, on an ongoing basis, such information as the IESO may reasonably require for the purpose of determining that market participant's demand response prudential support obligation.
- 5B.2.4 If demand response prudential support previously provided to the IESO by a market participant is due to expire or terminate, and upon expiry or termination of the existing demand response prudential support, the total demand response prudential support held by the IESO in respect of that market participant will be less than the market participant's demand response prudential support obligation, then at least ten business days prior to the time at which the existing security is due to expire or terminate, the market participant must provide to the IESO replacement demand response prudential support which will become effective no later than the expiry or termination of the existing collateral, such that the total demand response prudential support provided is at least equal to the market participant's demand response prudential support obligation.
- 5B.2.5 Where a market participant's demand response prudential support obligation has been reduced pursuant to section 5B.5 and the relevant credit rating is revised or the relevant payment history has changed, such as to result in an increase in the market participant's demand response prudential support obligation, then within five business days, the market participant must provide to the IESO additional demand response prudential support such that the total demand response prudential support provided is at least equal to the market participant's demand response prudential support obligation when calculated on the basis of the revised credit rating or payment history.
- 5B.2.6 Where any part of the demand response prudential support provided by a market participant otherwise ceases to be current or valid for any reason, the market participant must immediately so notify the IESO and provide to the IESO, within two business days, replacement demand response prudential support such that the total demand response prudential support provided is at least equal to the market participant's demand response prudential support obligation.
- 5B.2.7 If the IESO draws upon part or all of a market participant's demand response prudential support in accordance with section 6.3.3.2 of Chapter 3 and the remaining demand response prudential support held by the IESO in respect of

that market participant is less than the market participant's demand response prudential support obligation, the market participant must, within five business days of receiving notice from the IESO, provide the IESO with additional demand response prudential support such that the total demand response prudential support provided is at least equal to the market participant's demand response prudential support obligation.

5B.3 Calculation of Demand Response Prudential Support Obligations

5B.3.1 The IESO shall determine, in accordance with the applicable market manual, for each market participant, a demand response prudential support obligation for each commitment period, based on a percentage of the highest monthly availability payment, less any allowable reductions pursuant to section 5B.5.

5B.3.2 The IESO shall review the demand response prudential support obligation of each market participant as follows:

5B.3.2.1 prior to the start of each commitment period;

5B.3.2.2 within two business days after it receives notice of any changes to the status of a market participant as compared to such status that was in effect when the market participant's demand response prudential support was last calculated; or

5B.3.2.3 as a result of either a change in or loss of a market participant's credit rating or good payment history reduction calculated in accordance with section 5B.5.

5B.3.3 The IESO may change the demand response prudential support obligation for a market participant at any time as a result of a review conducted pursuant to section 5B.3.2, and shall promptly notify the market participant of any such change. Any change to a market participant's demand response prudential support obligation shall apply with effect from such time, not being earlier than the time of notification of the change to the demand market participant, as the IESO may specify in the notice. The market participant must supply the IESO, within five business days of the effective date of the change, any additional demand response prudential support that may be required as a result of an increase in the market participant's demand response prudential support obligation that results from such change.

5B.4 Obligation to Provide Demand Response Prudential Support

5B.4.1 Each market participant must provide to the IESO and maintain demand response prudential support, the value of which is at least equal to the market participant's demand response prudential support obligation. The aggregate value of the demand response prudential support shall be equal to the value of the undrawn or

unclaimed amounts of demand response prudential support provided by the market participant.

5B.4.2 A market participant's demand response prudential support obligation must be met through the provision to the IESO and the maintenance of demand response prudential support in the following form:

5B.4.2.1 a guarantee or irrevocable commercial letter of credit, which in both cases must be in a form acceptable to the IESO and provided by:

- a. a bank named in a Schedule to the Bank Act, S.C. 1991, c.46 with a minimum long-term credit rating of "A" from an IESO acceptable major bond rating agency as identified in the list referred to in section 5B.5.7; or
- b. a credit union licensed by the Financial Services Commission of Ontario with a minimum long-term credit rating of "A" from an IESO acceptable major bond rating agency as identified in the list referred to in section 5B.5.7.

5B.4.3 The following provisions shall apply to a guarantee or irrevocable letter of credit provided in section 5B.4.2.1:

5B.4.3.1 the letter of credit shall provide that it is issued subject to either The Uniform Customs and Practice for Documentary Credits, 2007 Revision, ICC Publication No. 600 or The International Standby Practices 1998;

5B.4.3.2 the IESO shall be named as beneficiary in each letter of credit, each letter of credit shall be irrevocable, partial draws on any letter of credit shall not be prohibited and the letter of credit or the aggregate amount of all letters of credit shall be in the face amount of at least the amount specified by the IESO;

5B.4.3.3 the only conditions on the ability of the IESO to draw on the letter of credit shall be the occurrence of an event of default by or in respect of the market participant and a certificate of an officer of the IESO that the IESO is entitled to draw on the letter of credit, in accordance with the provisions of the market rules in the amount specified in the certificate as at the date of delivery of the certificate;

5B.4.3.4 the letter of credit shall either provide for automatic renewal (unless the issuing bank advises the IESO at least thirty days prior to the renewal date that the letter of credit will not be renewed) or be for a term of at least one (1) year. In either case it is the responsibility of the market participant to maintain the requisite amount of demand response prudential support. Where the IESO is advised that a letter of credit is not to be renewed or the term of the letter of credit is to expire, the market participant shall arrange for and deliver alternative

demand response prudential support within the time frame mandated by the market rules so as to enable the market participant to be in compliance with the market rules; and

5B.4.3.5 by including a letter of credit as part of its demand response prudential support, the market participant represents and warrants to the IESO that the issuance of the letter of credit is not prohibited in any other agreement, including without limitation, a negative pledge given by or in respect of the market participant.

5B.4.4 For the purpose of section 5B.4.2.1, the IESO shall establish, maintain, and publish a list of organizations eligible to provide the demand response prudential support referred to in section 5B.4.2.1 and shall establish for each such eligible demand response prudential support provider, an aggregate limit of the demand response prudential support that may be provided by that demand response prudential support provider to market participants. If aggregate limits are reached for any of these eligible organizations, market participants will be required to obtain demand response prudential support from other eligible organizations that are still within their respective demand response prudential support limits.

5B.4.5 In the event that the demand response prudential support provided by a market participant is a greater amount than required by the market rules, the IESO shall, upon written request by the market participant, return to the market participant an amount equal to the difference between the value of demand response prudential support held by the IESO and the demand response prudential support obligation of the market participant at that time. The IESO shall return such amount within five business days of the receipt of the request for the return of the amount from the market participant. In all circumstances, the IESO shall return demand response prudential support only after all payments and charges for the final month of a commitment period have been settled.

5B.4.6 The minimum terms and conditions that shall be included in the demand response prudential support in accordance with section 5B.4.2.1 shall be as follows:

5B.4.6.1 demand response prudential support shall be obligations in writing;

5B.4.6.2 demand response prudential support shall constitute valid and binding unsubordinated obligations to pay to the IESO amounts in accordance with its terms which relate to the obligations of the relevant market participant under the market rules; and

5B.4.6.3 demand response prudential support shall permit drawings or claims by the IESO on demand to a stated certain amount, including partial drawings or claims.

5B.4.7 Upon the occurrence of an event of default, the IESO shall be entitled to exercise its rights and remedies as set out in the market rules, or provided for at law or in

equity. Without limiting the generality of the foregoing, such rights and remedies shall, in respect of the *demand response prudential support* provided by the *market participant*, include setting-off and applying any and all *demand response prudential support* held against the indebtedness, obligations and liabilities of the *market participant* to the *IESO* in respect of the participation by the *market participant* in the *real-time markets*, including the costs, charges, expenses and fees described in section 5B.4.9.

5B.4.8 Each of the remedies available to the *IESO* under the *market rules* or at law or in equity is intended to be a separate remedy and in no way is a limitation on or substitution for any one or more of the other remedies otherwise available to the *IESO*. The rights and remedies expressly specified in the *market rules* or at law or in equity are cumulative and not exclusive. The *IESO* may in its sole discretion exercise any and all rights, powers, remedies and recourses available under the *market rules* or under any document comprising the *demand response prudential support* provided by the *market participant* or any other remedy available to the *IESO* howsoever arising, and whether at law or in equity, and such rights, powers and remedies and recourses may be exercised concurrently or individually without the necessity of any election.

5B.4.9 The *market participant* agrees to pay to the *IESO* forthwith on demand all reasonable costs, charges, expenses and fees (including, without limiting the generality of the foregoing, legal fees on a solicitor and client basis) of or incurred by or on behalf of the *IESO* in the realization, recovery or enforcement of the *demand response prudential support* provided by the *market participant* and enforcement of the rights and remedies of the *IESO* under the *market rules* or at law or in equity in respect of the participation by the *market participant* in the *real-time markets*.

5B.5 Reductions in Demand Response Prudential Support Obligations

5B.5.1 Subject to section 5B.5.2, the *IESO* may reduce the *demand response prudential support obligation* of a rated *market participant* by an amount equal to the monetary value prescribed by the table below, resulting from a credit rating from a major bond rating agency identified in the list referred to in section 5B.5.7 issued and in effect in respect of the *demand response market participant*.

<u>Credit Rating Category using Standard and Poor's Rating Terminology</u>	<u>Allowable Reduction in Prudential Support</u>
<u>AA- and above or equivalent</u>	<u>100% of the <i>demand response prudential support obligation</i> before allowable reductions</u>
<u>A-, A, A+ or equivalent</u>	<u>Greater of 90% of the <i>demand response prudential support obligation</i> before allowable reductions or \$37,500,000</u>

<u>BBB-, BBB, BBB+ or equivalent</u>	<u>Greater of 65% of the demand response prudential support obligation before allowable reductions or \$15,000,000</u>
<u>BB-, BB, BB+ or equivalent</u>	<u>Greater of 30% of the demand response prudential support obligation before allowable reductions or \$4,500,000</u>
<u>Below BB- or equivalent</u>	<u>0</u>

5B.5.2 Any recommendation to move a market participant to “credit watch negative” by any of the major bond rating agencies identified in the list referred to in section 5B.5.7, shall be deemed to automatically result in a one-notch reduction in terms of the credit rating (for example, from BBB+ to BBB) of that market participant for the purpose of determining the market participant’s demand response prudential support obligation.

5B.5.3 Where a market participant’s demand response prudential support obligation reflects a reduction by reason of the market participant’s credit rating from a major bond agency identified in the list referred to in section 5B.5.7, the market participant shall advise the IESO in writing immediately upon the market participant becoming aware of either a change in or loss of the then current credit rating or the decision of the bond rating agency to place the market participant on “credit watch status” or equivalent.

5B.5.4 Subject to section 5B.5.6, the IESO may reduce the market participant’s demand response prudential support obligation in accordance with section 5B.5.5 based on the market participant’s historical good payment history in the IESO-administered markets, provided that the market participant’s payment history includes no event of default.

5B.5.5 The IESO shall determine the dollar amount of any allowable reduction in the demand response prudential support obligation of an unrated market participant, by an amount equal to the monetary value prescribed, by the table below:

<u>Good Payment History Categories for Non-Distributors</u>	<u>Allowable Reduction in Prudential Support</u>
<u>≥6 years</u>	<u>Lesser of 50% of the demand response prudential support obligation before allowable reductions or \$12,000,000</u>
<u>≥5 years, <6 years</u>	<u>Lesser of 30% of the demand response prudential support obligation before allowable reductions or \$7,500,000</u>
<u>≥4, <5 years</u>	<u>Lesser of 25% of the demand response prudential support obligation before allowable reductions or \$6,000,000</u>
<u>≥3, <4 years</u>	<u>Lesser of 20% of the demand response prudential</u>

	<u>support obligation before allowable reductions or \$4,500,000</u>
<u>>2, <3 years</u>	<u>Lesser of 15% of the demand response prudential support obligation before allowable reductions or \$3,000,000</u>
<u><2 years</u>	<u>0</u>

5B.5.6 The following restrictions shall apply to the provision of reductions in a market participant's demand response prudential support obligation as provided for under sections 5B.5.1, and 5B.5.4:

5B.5.6.1 a market participant shall not be entitled to a reduction in its demand response prudential support obligation pursuant to section 5B.5.4 using the payment history of an affiliate;

5B.5.6.2 a market participant that has a credit rating from a major bond rating agency identified in the list referred to in section 5B.5.7 shall not be entitled to a reduction in its demand response prudential support obligation under section 5B.5.4; and

5B.5.6.3 a market participant's reduction for either a credit rating or good payment history reduction shall be reduced by the amount of any reductions already granted to the market participant under section 5.8.

5B.5.7 For the purposes of this chapter, the IESO shall establish, maintain, and publish a list of major bond rating agencies eligible to provide the credit ratings mentioned in this section 5B.

7. Payment Default Procedure

7.1.1 The events of default relating to payment and either prudential support, ~~or~~ demand response security, or demand response prudential support, as well as the rights and obligations of the IESO and market participants upon the occurrence of such event of default, are specified in section 6.3 of Chapter 3.

Chapter 3

6.3 Events of Default

6.3.1 An event of default occurs if a market participant or the person that has provided prudential support, ~~or~~ demand response security, or demand response prudential support in relation to the market participant:

- 6.3.1.1 does not make a payment in full required under the *market rules* when due;
 - 6.3.1.2 fails to provide payment in full of any amount claimed by the *IESO* under any *prudential support*, ~~or demand response security~~, or demand response prudential support;
 - 6.3.1.3 fails to provide and maintain *prudential support*, ~~or demand response security~~, or demand response prudential support required to be supplied under the *market rules* within the time required;
-
- 6.3.2 A *market participant* shall notify the *IESO* immediately upon:
 - 6.3.2.1 the occurrence of an *event of default* or any circumstance that may give rise to an *event of default* referred to in sections 6.3.1.4 to 6.3.1.11; or
 - 6.3.2.2 the appointment of a receiver or receiver and manager or person having a similar or analogous function under the laws of any relevant jurisdiction in respect of any property of the *market participant* or the *market participant's prudential support provider*, ~~or demand response security~~, or demand response prudential support provider.
 - 6.3.3 Where a *market participant* or a person providing *prudential support*, ~~or demand response security~~, or demand response prudential support on behalf of that *market participant* commits an *event of default*, the *IESO* may:
 - 6.3.3.1 issue to the *market participant* a *notice of intent to suspend* stating that the *market participant* will be suspended unless it remedies the *event of default* within 2 *business days* or such longer period as specified in the notice;
 - 6.3.3.2 immediately draw upon part or all of the *market participant's prudential support*, ~~or demand response security~~, or demand response prudential support for either the amount of any money owing to the *IESO* under the *market rules* or where the *market participant's prudential support*, ~~or demand response security~~, or demand response prudential support is due to expire or terminate and has not been replaced as required under section 5.2.5, ~~or 5A.2.3~~ or 5B.2.4 of Chapter 2, the undrawn part of the *prudential support* or *demand response security* notwithstanding the provisions of section 5.7.2.5 of Chapter 2 until such time as the *market participant* has replaced its *prudential support*, ~~or demand response security~~, or demand response prudential support; and
 - 6.3.3.3 set-off any amounts due or credited to the *market participant* under the *market rules*, including those set out in section 4.8.2 of Chapter 9, and any program administered through the billing and *settlement* systems of the *IESO* against any amounts owed by the *market participant*.

Chapter 7

2.5 Transfer of Registration of Facilities

- 2.5.4 Upon completion of the transfer of the *registered facility*, the proposed transferee will have to post with the *IESO prudential support* or demand response prudential support as applicable, equal to the proposed transferee's *prudential support obligation* or demand response prudential support obligation. Until the proposed transferee has done so, the transferring *market participant* shall continue to be liable for the obligations of the proposed transferee in the *IESO-administered markets*. Such obligations shall include, without limitation, the cost of electricity withdrawn from the *IESO-controlled grid* by the proposed transferee and related charges as determined by the *IESO* in accordance with Chapter 9. The *prudential support obligation* or demand response prudential support obligation as applicable of the transferring *market participant* shall include all such amounts whether or not the transferring *market participant* has complied with the provisions of this section 2.5.

Chapter 11

demand response prudential support means the collateral provided by a market participant with a demand response capacity obligation;

demand response prudential support obligation means the dollar amount of collateral required as specified by the IESO as a condition of delivering on a demand response capacity obligation obtained through a demand response auction;

PART 5 – IESO BOARD DECISION RATIONALE

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Jason Grbavac

From: Jason Grbavac
Sent: April 18, 2019 3:48 PM
To: bob@bieler.ca; david.brown@oeb.ca; rcollins@sinopa.ca; Griffiths Sarah (EnerNOC); rglake@nexicom.net; phil.lasek@shell.com; jsaunders@burlingtonhydro.com; sushil.samant@northlandpower.ca; julien.wu@brookfieldrenewable.com; Jessica Savage; vlad.urukov@opg.com; Dave Forsyth; Robert Reinmuller, P.Eng. (Robert.Reinmuller@HydroOne.com); Michael Lyle
Cc: Reena Goyal; Robert Doyle
Subject: FW: Private Discussions - Resolute's rule amendment submission

Good Afternoon Technical Panel,

Mr. Vegh has asked the IESO to forward you his response to this email.

I would like to wish you all a safe and enjoyable long weekend.

Thanks,
Jason

Jason Grbavac | Senior Advisor, Stakeholder Engagement - Policy, Engagement, Innovation
Independent Electricity System Operator (IESO) | T: (905) 855-6155 | C: (905) 466-6154
Station A, Box 4474, Toronto, ON M5W 4E5
Web: www.ieso.ca | Twitter: [IESO Tweets](#) | LinkedIn: [IESO](#)
Conservation: www.saveONenergy.ca | Twitter: [saveONenergyOnt](#) | LinkedIn: [saveONenergy](#)

-----Original Message-----

From: Vegh, George <gvegh@mccarthy.ca>
Sent: April 18, 2019 11:48 AM
To: Robert Doyle <robert.doyle@ieso.ca>
Cc: Thomas, Michelle <MTHOMAS@MCCARTHY.CA>
Subject: Re: Private Discussions - Resolute's rule amendment submission

CAUTION: This email originated from outside of the organization. Exercise caution when clicking on links or opening attachments even if you recognize the sender.

Robert,

Thank you for your note. I can confirm that I have contacted some technical panel members to see if they have any further questions or concerns respecting resolute's proposed amendment. I have also advised that any further information provided by resolute will go to all of the members via ieso staff.

As you are aware, technical panel members are not sequestered or otherwise precluded from discussing proposed market rule amendments with anyone, including the proponent. This is also consistent with past practice. If you are aware of any rule that does not permit this please advise.

Please forward this to technical panel members.

Sent from my iPhone

On Apr 18, 2019, at 9:08 AM, Robert Doyle <robert.doyle@ieso.ca<mailto:robert.doyle@ieso.ca>> wrote:

Hi George –

Below is a communication sent to TP members yesterday evening.

I wanted to say thank you again for changing your schedule for May 2. I confirm that the meeting will start at 9am. It will be held at the IESO's 120 Adelaide Street West office on the 16th floor.

Lastly, Resolute's rule amendment proposal has been posted<<https://can01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.ieso.ca%2F%2Fmedia%2FFiles%2FIESO%2FDocument-Library%2Fmr-amendments%2Fmr2019%2FMR-00437-R00-v-3.pdf%3F%3Den&data=01%7C01%7CRobert.doyle%40ieso.ca%7C3be11fd3a0884e7765dc08d6c41549ac%7C7cd55abd63f243c58f4bd38ea458add8%7C0&data=gkmybz3enJQ4YAoxAPLK1ggjvPxmrZgtwQInCwUBSkk%3D&reserved=0>> for stakeholder review and comment with comments due by April 26. A communication will be included in today's IESO Bulletin.

Thanks – Rob

From: Jason Grbavac <Jason.Grbavac@ieso.ca<mailto:Jason.Grbavac@ieso.ca>>
Sent: April 17, 2019 6:40 PM
To: bob@bieler.ca<mailto:bob@bieler.ca>; david.brown@oeb.ca<mailto:david.brown@oeb.ca>; rcollins@sinopa.ca<mailto:rcollins@sinopa.ca>; Griffiths Sarah (EnerNOC) <sarah.griffiths@enel.com<mailto:sarah.griffiths@enel.com>>; rglake@nexicom.net<mailto:rglake@nexicom.net>; phil.lasek@shell.com<mailto:phil.lasek@shell.com>; jsaunders@burlingtonhydro.com<mailto:jsaunders@burlingtonhydro.com>; sushil.samant@northlandpower.ca<mailto:sushil.samant@northlandpower.ca>; julien.wu@brookfieldrenewable.com<mailto:julien.wu@brookfieldrenewable.com>; Jessica Savage <jessica.savage@ieso.ca<mailto:jessica.savage@ieso.ca>>; vlad.urukov@opg.com<mailto:vlad.urukov@opg.com>; Dave Forsyth <dforsyth@ampco.org<mailto:dforsyth@ampco.org>>; Robert Reinmuller, P.Eng. (Robert.Reinmuller@HydroOne.com<mailto:Robert.Reinmuller@HydroOne.com>) <Robert.Reinmuller@HydroOne.com<mailto:Robert.Reinmuller@HydroOne.com>>; Michael Lyle <Michael.Lyle@ieso.ca<mailto:Michael.Lyle@ieso.ca>>
Cc: Reena Goyal <reena.goyal@ieso.ca<mailto:reena.goyal@ieso.ca>>; Robert Doyle <robert.doyle@ieso.ca<mailto:robert.doyle@ieso.ca>>
Subject: Private Discussions - Resolute's rule amendment submission

Good afternoon,

A member of the Technical Panel has notified the IESO that counsel for Resolute has contacted them directly, requesting a private discussion regarding Resolute's rule amendment submission. The member has asked the IESO whether such a private discussion is appropriate. In the interest of transparency, the IESO has elected to direct its answer to the entire Technical Panel.

The IESO does not take a position on the appropriateness of panel members privately discussing the amendment submission with Resolute. However, in the further interest of transparency, the IESO will not be contacting panel members individually on this matter. The panel has already been presented with a substantial amount of information on this issue. If there is a need or request for further clarification or supplementation, the IESO will direct communications on its position to the entire panel and to Resolute, giving all parties an opportunity to respond.

Let me know if you have any questions.

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Date of Meeting: June 12, 2019

Presenters: Jessica Savage, Director, Corporate and Regulatory Affairs
Reena Goyal, Senior Counsel – Senior Manager, Market Rules & Dispute Resolution, and Assistant CRCO

Agenda Item: Market Rules Amendment

Purpose of Item: Decision

Executive Summary: The Technical Panel voted 8-4 against recommending to the Board the adoption of the following market rule amendment proposal submitted by Resolute FP Canada (“Resolute”), a market participant:

- MR-00437-R00: Resolute – Demand Response Registration and Metering Requirements

The Board is being asked to exercise one of the following options:

- Accept the majority vote and recommendation of the Technical Panel against the adoption of the market rule amendment.
- Not accept the majority vote and recommendation of the Technical Panel; approve the market rule amendment as submitted or with changes made by the Board in its consideration of the market rule amendment.
- Refer the market rule amendment proposal back to the Technical Panel for further consideration and vote or to any other person to which the Board deems appropriate.

Significant Issues, Risks and Opportunities: Resolute has raised concerns regarding the process that the Technical Panel followed to review this market rule amendment proposal. As such, Resolute has requested to make submissions directly to the IESO Board. The IESO has invited Resolute to provide up to 10-pages in additional written submissions by June 7, 2019, which if received will be provided to the Board to review in advance of the June 12 meeting.

Prior to submitting this rule amendment proposal, Resolute also commenced a dispute under the market rules. If its market rule amendment proposal is not adopted, Resolute may try to seek recourse

at the Ontario Energy Board.

Materials:

1. Memorandum dated June 4, 2019 from Technical Panel Chair to IESO Board
2. Resolute Market Rule Amendment Proposal, dated April 16, 2019
3. Background Information, dated May 27, 2019
4. Resolute Presentation to Technical Panel, dated February 12, 2019
5. IESO Cover Memo to Technical Panel, dated April 30, 2019
6. Technical Panel member vote and rationale, dated May 21, 2019
7. Summary of Stakeholder and Technical Panel member comments on price, reliability and quality of service
8. Resolute letter to the IESO Board Secretary dated May 27, 2019
9. IESO Board Secretary responding letter to Resolute dated June 4, 2019

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Independent Electricity System Operator

1600-120 Adelaide Street West
Toronto, ON M5H 1T1
t 416.967.7474
www.ieso.ca

Memorandum

To: THE BOARD OF DIRECTORS
of the Independent Electricity System Operator

From: Mike Lyle, Vice President, Legal Resources and Corporate Governance
Chair, IESO Technical Panel

Date: June 4, 2019

Re: Recommendation from the Technical Panel on Market Rule Amendment Proposal

The IESO is seeking a decision from the IESO Board on a market rule amendment proposal submitted by Resolute FP Canada (“Resolute”). At its May 2, 2019 meeting, the Technical Panel voted 8-4 against recommending to the Board the adoption of MR-00437-R00: Demand Response: Registration and Metering Requirements.

Description and Background

Resolute has been providing demand response (“DR”) to the IESO since 2012 under the former DR2, DR3 and Capacity Based DR programs (together the “former DR programs”) as well as the current DR Auction from its Thunder Bay news-mill manufacturing facility. Resolute participated in the former DR programs with a metering configuration that was submitted and approved by the former Ontario Power Authority and subsequently, the IESO. After the former DR programs transitioned to the current DR Auction, Resolute failed a DR activation in 2017 because its DR reduction was not seen in totality at the IESO-controlled grid.

Subsequently, Resolute commenced a dispute under the market rules against the IESO to contest the non-performance charges relating to the failed activation. That dispute is currently being addressed through the dispute resolution process under the market rules. Resolute then submitted on October 11, 2018 a request for a market rule review and submission to amend certain market rules related to registration and metering requirements for the DR Auction. Resolute revised the language in its market rule amendment proposal to address concerns raised by Technical Panel members at its March 5, 2019 meeting. That revised market rule amendment proposal (#2 in the Agenda Item Summary) is the subject of this Board agenda item.

For your reference, the enclosed background information document (#3 in the Agenda Item Summary) illustrates Resolute's grid connection and how its Thunder Bay facility (non-dispatchable load and self-scheduling generator) can contribute DR to the IESO-controlled grid. Appendix A to this memo provides a brief summary of each attachment outlined in the Agenda Item Summary.

Resolute's Position

Resolute's market rule amendment proposal seeks to maintain its metering and physical configuration that existed in the former DR programs. In particular, Resolute's Thunder Bay facility seeks to achieve its DR obligation by reducing behind-the-meter load, but contends that because the IESO has the ability to view this behind-the-meter load reduction it should still be included in the IESO's assessment of Resolute's participation in the DR Auction, even though the load reduction is not occurring at the IESO-controlled grid level.

Further, Resolute argues that at no time prior to 2017 did IESO staff raise concerns with Resolute's configuration with respect to reliability, efficiency or fairness, and that no discussion on this matter occurred when the DR Auction market rules were brought before the Technical Panel in 2015. As such, Resolute is of the view that these market rules were carried over to the current DR Auction, and that the IESO was or should have been aware of Resolute's metering and physical configuration when Resolute successfully received a commitment in the DR Auction, so, it is unfair to now subject Resolute to what it views as the IESO's "new" interpretation of these market rules.

IESO's Position

IESO staff believes that the proposed market rule amendment would have an adverse impact on the IESO's reliable and efficient operation of the IESO-controlled grid, and would introduce inconsistency in the manner in which participants are treated in the IESO-administered markets.

With respect to reliability, when the IESO activates a DR resource, it expects to see a corresponding reduction at the IESO-controlled grid, as measured by IESO Revenue Meters which are used for settlement of the IESO-administered markets, including the DR Auction. If Resolute's proposal were to be adopted, the IESO may never see the full reduction of consumption at the IESO-controlled grid corresponding to a DR activation since some portion of load reduction could occur behind the meter.

Even if the technical challenge of anticipating and planning for fractions of DR capacity obligations being realized at the IESO-controlled grid could be resolved through a combination of reading meters other than IESO Revenue Meters and applying mathematical formulas, the result would be an inefficient DR program.

Resolute's proposal would enable a DR resource with a capacity obligation to receive full payment for that capacity obligation while delivering only a fraction of their DR reductions at

the IESO-controlled grid. The IESO cannot support a proposal that would provide for ratepayers paying for a service they are not receiving.

Finally, applying consistent settlement methodologies is fundamental to the fair treatment of market participants. Resolute's proposal would enable DR participants to access metering configuration for DR that would differ from participation in other IESO-administered markets. This would result in inconsistent and unfair treatment, and cannot be supported for that reason.

The treatment sought in the market rule amendment proposal would continue to leverage features of the former DR programs that were intended to be eliminated in the design of the DR Auction. The historical treatment is the subject of a current dispute and that is where it belongs – it is not a matter for the Technical Panel to arbitrate. The role of the Technical Panel is to determine whether or not to recommend Resolute's proposed amendment to the IESO Board prospectively.

Technical Panel Discussions and Stakeholder Feedback

The Technical Panel met on January 29, February 6, March 5, April 16 and May 2 to discuss this market rule amendment proposal. Both the IESO and Resolute had several opportunities to provide their respective positions, answer Technical Panel questions (both written, and within the meetings) and to address the points put forward by the other party.

The Technical Panel requested that the market rule amendment proposal be discussed at the February 12 meeting of the Demand Response Working Group ("DRWG") with several Technical Panel members asserting that additional feedback from stakeholders with experience in the DR Auction would be helpful to ongoing Technical Panel discussions.

DRWG members made the following points during the February 12 meeting:

- There was some support of Resolute's high level proposal with the recognition of the need for a better understanding of what scenarios or issues could arise with different metering configurations.
- One participant stated that additional details were required to better understand the concerns that the IESO may have with respect to Resolute's proposal.
- The ultimate test that should be applied to this situation needs to be whether Resolute met a net reduction in load or not.
- It is important to look at this issue and whether it is consistent with the expected design of the Incremental Capacity Auction (ICA).

Several Technical Panel members suggested that DRWG members provided few comments on the proposal because the IESO did not more clearly set out the issues for consideration at the February 12 DRWG meeting.

At the March 5 Technical Panel meeting, the Technical Panel decided not to send the market rule amendment proposal back to the DRWG for additional review and information. Rather, the Technical Panel agreed to continue the discussion through the Technical Panel process, and

voted to post the market rule amendment proposal for broader stakeholder review and comment. The market rule amendment proposal was published on the IESO public website for stakeholder review and written comment for a two-week period. No written comments were received.

The final Technical Panel meeting on May 21 provided members an opportunity to ask any final questions before voting on the market rule amendment proposal and providing accompanying rationale. The Technical Panel members' rationales, enclosed as a separate attachment, encompass both commentary on the market rule amendment proposal itself and on the market rule amendment process more generally.

A follow-up in-camera meeting with the Technical Panel was held on May 21, 2019 to solicit further feedback and to identify areas for improvement on the market rule amendment process. Feedback from this meeting included having future participant-submitted market rule amendment proposals brought more expeditiously to Technical Panel and to more clearly set out the issues for consideration at related stakeholder engagements (e.g. DRWG).

The full list of materials pertaining to this market rule amendment proposal as submitted by the IESO and Resolute, are available on the Technical Panel [webpage](#). This includes all IESO memos to the Technical Panel, IESO and Resolute presentations made to the Technical Panel, and related correspondence.

Resolute has raised concerns about the process that was followed in the Technical Panel's consideration of this market rule amendment proposal. As such, Resolute has requested to submit additional materials to the Board in advance of the June 12 meeting. Although not required under the market rules or the Governance & Structure By-Law, the IESO has invited Resolute to provide up to 10-pages in additional written submissions by June 7. If and once such submissions are received, they will be provided to the Board for review prior to the June 12 meeting.

Next Steps

I recommend that the Board accept the majority vote and recommendation from the Technical Panel against the adoption of MR-00437: Demand Response: Registration and Metering Requirements.

I look forward to discussing this item with you,



Mike Lyle

Encls

Cc: IESO Records

APPENDIX A – SUMMARY OF MATERIALS

This section provides a brief summary of each attachment outlined in the Agenda Item Summary (AIS).

1. Memorandum dated June 4, 2019 from Technical Panel Chair to IESO Board	Memo from the Technical Panel Chair detailing the process and outcome of the market rule amendment proposal.
2. Resolute Market Rule Amendment Proposal, dated April 16, 2019	Includes the draft market rule language as submitted by Resolute, including background information and context.
3. Background Information, dated May 27, 2019	Summary of the Resolute grid connection as excerpted from the IESO presentation to Technical Panel on April 16, 2019.
4. Resolute Presentation to Technical Panel, dated February 12, 2019	Presentation material from Resolute.
5. IESO Cover Memo to Technical Panel, dated April 30, 2019	Final IESO memo to Technical Panel recommending that a vote be taken on the market rule amendment proposal.
6. Technical Panel member vote and rationale, dated May 21, 2019	Final vote and accompanying rationale from each Technical Panel member.
7. Summary of Stakeholder and Technical Panel member comments on price, reliability and quality of service	Excerpts from Technical Panel meeting minutes pertaining to price, reliability and quality of service impacts of the market rule amendment proposal.
8. Resolute letter to the IESO dated May 27, 2019	Request from Resolute to address the IESO Board with an oral and written submission.
9. IESO Response to Resolute dated June 4, 2019	Response from the IESO permitting a written submission to the IESO Board.

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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00437-R00		
Subject:	Request for review of market rule pursuant to Chapter 3, section 4.2.4		
Title:	Demand Response Market Rule unjustly discriminates against a Market Participant / a class of Market Participants		
Nature of Proposal:	☒ Alteration	☐ Deletion	☐ Addition
Chapter:	Market Rule Chapter 7	Appendix:	
Sections:	18.2 and 19.2.1.1		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Technical Panel Review	November 28, 2018
2.0	Draft for Technical Panel Review	April 9, 2019
3.0	Publish for Stakeholder Review and Comment	April 16, 2019
Approved Amendment Publication Date:		
Approved Amendment Effective Date:		

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

BACKGROUND:

Resolute FP Canada Inc. ("Resolute") is filing this request for an amendment to Chapter 7, sections 18.2 and 19.2.1.1 of the Market Rules (the "Market Rules") pursuant to Chapter 3, section 4.2.4 of the Market Rules and ss. 35(1) and 35(4) of the Electricity Act, 1998 ("Electricity Act").

The purpose of this amendment is to restore the original intention of the Market Rules with respect to the determination of a demand response market participant's demand response capacity (Chapter 7, s. 18.2) and eligibility to participate as an hourly demand response resource (Chapter 7, s. 19.2.1.1) (collectively, the "Capacity and Eligibility Requirements").

The original intention of the Capacity and Eligibility Requirements, as expressed in presentations to the Technical Panel and in the Market Rule Amendment proposals in respect of the Market Rules, included transitioning Capacity and Eligibility Requirements under the DR2, DR3 and CBDR programs (as defined below) to the DRA.

In order to ensure that the proposed amendments do not result in unanticipated consequences and do not constitute a design change to the DRA, Resolute has revised its proposed amendment to ensure that the amendment does not result in changes to Capacity and Eligibility Requirements that have not already been considered by the Technical Panel and approved under the DR2, DR3 and CBDR Programs. To achieve this, the revision simply confirms that "nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3, or CBDR programs."

The full text of the proposed amendment is in Part 4.

BRIEF DESCRIPTION OF THE ISSUE:

Context

As a Demand Response Market Participant ("**DRMP**"), Resolute has been providing DR to the IESO under the Demand Response 2 ("**DR2**") and Demand Response 3 ("**DR3**") programs created by the IESO's predecessor, the Ontario Power Authority, as well as the Capacity Based Demand Response program ("**CBDR**") and the current DR auction ("**DRA**") (collectively, DR2, DR3, CBDR and DRA will be referred to as the "**Demand Response Programs**").

For the purpose of its participation in the Demand Response Programs, Resolute registered its Thunder Bay news-mill manufacturing facility as the Demand Response Program resource (the "**Mill**"). To do this, Resolute made use of two revenue-grade electricity meters; one that measures the consumption of the Mill from IESO-controlled grid (the "**IESO Grid Meter**"), and the other that measures the consumption of the Mill from its cogeneration facility (the "**Mill Revenue Meter**").

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

The sum of the data measurements from these two meters accurately identify the total load of the Mill and that Facility's available capacity for the Demand Response Programs. The total load for the Mill was determined, and continues to be, between 70 - 110 megawatts, depending on manufacturing operations.

The IESO accepted this measurement as accurately reflecting the total available capacity of Resolute's Mill and approved Resolute's participation in DR2, DR3, CBDR and the DRA.

Resolute's Registration For The 2016/2017 Auction

In registering for the DRA, and with the IESO's knowledge, guidance, and participation, Resolute understood that the total load of the Mill would be measured using the same aggregated meter data, measured by both the IESO Grid Meter and the Mill Revenue Meter, as was previously relied on to determine Resolute's total available capacity for the DR2, DR3 and CBDR Programs.

Resolute was successful in both the 2016 and 2017 DRAs, and the IESO awarded it a maximum demand response capacity obligation of between 46 and 51 megawatts under these programs, reflective of its actual total load.

REASON FOR THE REQUESTED AMENDMENT:

In supporting the Market Rules in 2015, the Technical Panel was advised that the purpose of the Market Rules was to improve the "**integration of existing DR contracts** in the IESO-administered energy market and dispatch process".¹

The first steps involved in achieving this goal were to "implement market rules to **transition DR3 contractual terms** for a market based structure (capacity-based demand response)" and to "implement a DR Auction mechanism **to replace OPA DR contracts**".² Similarly, the Technical Panel was advised that the target MW requirement for the DR auction "was based on **the quantity of DR expiring from CBDR to maintain 500 MW target**".³

The Participation and authorization amendment to the Market Rules were described as facilitating the continuance of currently approved facilities and facilitating new DR participation."⁴

"In order to attract the broadest range of potential DR providers, **including current demand response providers** as well as new entrants and new technologies, we have sought to reduce the requirements for participation in the auction."

¹ Demand Response Auctions - Overview, Presentation to Technical Panel, January 20, 2015.p. 2.

² Demand Response Auctions - Overview, Presentation to Technical Panel, January 20, 2015.p. 3.

³ Demand Response Auctions - Overview, Presentation to Technical Panel, January 20, 2015.p. 7.

⁴ Demand Response Auctions - Overview, Presentation to Technical Panel, June 2 20, 2015.p. 8.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Similarly, the Market Rule Amendment Submission in respect of the Market Rules specifically stated that, "In developing the demand response auction, **the approach has been to facilitate participation by current demand response providers**, potential new participants and new technologies."⁵

The Market Rules were drafted in a way to facilitate these objectives. Specifically, the Market Rules made no material changes or restrictions to the Capacity and Eligibility Requirements that are set out in the Market Rules respecting the IESO's CBDR Programs."⁶

Despite the approval of the continuation of the existing Capacity and Eligibility Requirements , after the Market Rules were passed, IESO staff took the- position that the baseline measurement for Resolute's participation in the DRA will no longer reflect the CBDR Capacity and Eligibility Requirements that are set out in the market rules. Instead, staffs position was that the Capacity and Eligibility Requirements would only take into account measurement data from the IESO Grid Meter. As a result, staff advised that it will not accept or refer to measurement data from the Mill Revenue Meter.

The consequence of IESO Staffs position is that the electricity measured by the Mill Revenue Meter meter will no longer take into account in measuring the Mill's baseline consumption. Consequently, the mill will, for the first time, and contrary to the IESO's approved participation in the DR2, DR3⁷ and CBDR Programs, artificially be deemed to only consume electricity from the grid and Resolute will not be able to have its demand reduction measured against the demand served by its self-generation (and measured by the Mill Revenue Meter).

IESO Staff has been unable to identify a Market Rule that supports this position and, and in particular, could not identify how the Market Rules that transitioned the CBDR program to the DRA supported this change.

In discussing Resolute's amendments to the Market Rules with the Technical Panel, Staff raised two concerns. First, that scenarios that involve variations of Resolute's approved Capacity and Eligibility Requirements "could potentially yield unintended consequences if not thoroughly assessed"; and second, that Resolute's proposal is a "design change"⁸

⁵ Demand Response Auctions - Participant Authorization & Facility Registration, Version 5, p. 2 (MR-00416-ROO), undated.

⁶ See Market Rules, Chapter 7, s. 17.2.1. For a comparison of the Capacity and Eligibility Requirements under the CBDR and the DRA, see Appendix A.

⁷ The approvals for DR2 and DR3 were made by the IESO's predecessor organization, the Ontario Power Authority ("OPA"). The approvals for the CBDR were made by the post-merger IESO. Upon the amalgamation of the two organizations, the obligations, etc. of the OPA became obligations of the IESO: See Electricity Act, ss. 25.8(1).3.

⁸ IESO Response to Proposed Market Rule Amendment submitted by Resolute, MR-00437: Demand Response - Registration and Metering Requirement, Technical Panel, March 5, 2019.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Resolute understands the concerns respecting unintended consequences and has therefore revised its proposed amendment to ensure that it does not result in changes to Capacity and Eligibility Requirements that have not been considered by the Technical Panel and approved under the DR2, DR3 and CBDR Programs.

As to the "design change" point, it does not seem plausible that a configuration that has been in place and unchanged since 2013 has somehow become a design change. In any event, the revised amendment set out in Part 4 makes it clear that the Market Rule does not result in changes to metering configurations previously approved under the DR2, DR3 or CBDR programs.

The proposed changes to the Market Rules are set out in Part 4, below (proposed text to market rules is underlined).

If the IESO does not correct this outcome, then the current Market Rules are inconsistent with the purposes of the Electricity Act and discriminatory, and should be overturned by the Ontario Energy Board.

PART 4 – PROPOSED AMENDMENT

As Resolute believes that the current Market Rules are clear, no specific amendments are required. However, under the circumstances, Resolute believe that the following amendments will restore the original intention of the Market Rules:

Chapter 7, Section 18.2.1.2

18.2.1 No person may participate in a demand response auction nor receive a demand response capacity obligation unless that person has:

18.2.1.2 submitted and has been approved by the IESO, using forms and procedures as may be established by the IESO in the applicable market manual, the amount of demand response capacity that the demand response auction participant is willing to provide, provided that nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3 or CBDR programs;

Chapter 7, Section 19.2.1.1:

19.2.1 A demand response market participant is eligible to participate as an hourly demand response resource provided that the demand response market participant:

19.2.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual, provided that nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3 or CBDR programs;

PART 5 – IESO BOARD DECISION RATIONALE

Insert Text Here

iv

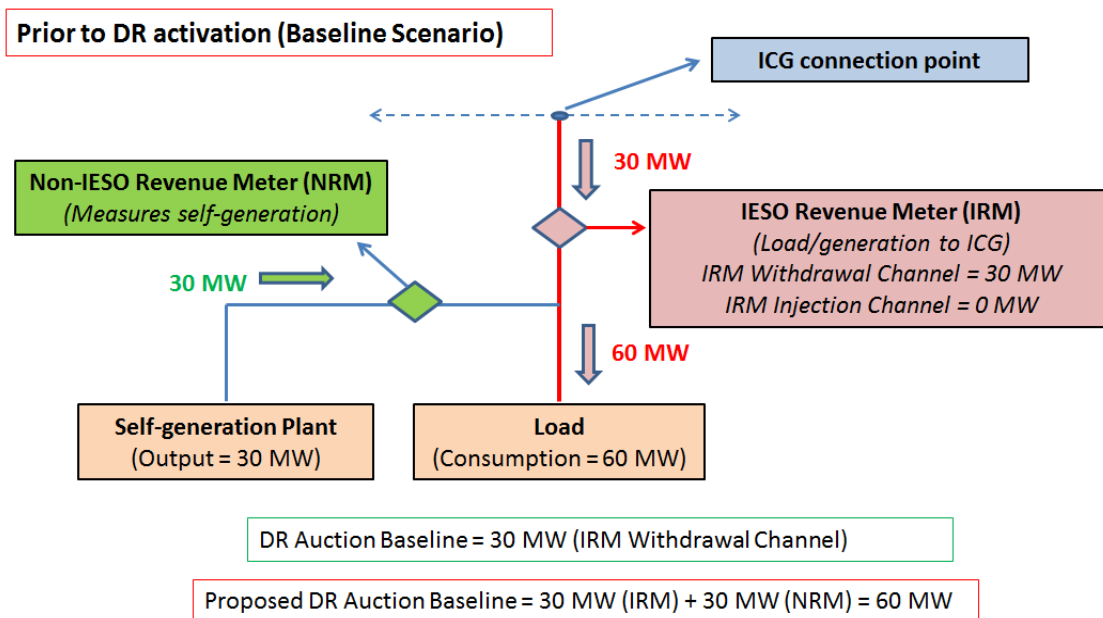
Background Information – Resolute Grid Connection

May 27, 2019

Resolute's Thunder Bay news-mill manufacturing facility is comprised of a (net) non-dispatchable load (pulp and paper operations) and a self-scheduling co-generation plant. Resolute has registered its non-dispatchable load resource for the Demand Response Auction. Consumption measured by the IESO revenue meter associated with its non-dispatchable load is used to determine its DR baseline and assess its DR curtailment. Use of its non-IESO revenue meter, which measures its self-generation, is not permitted in the DR Auction.

Participants with behind-the-meter generation (including self-generation) can provide DR by either curtailing the facilities' load, utilizing the generator to displace the facility load, or a combination thereof as measured at the IESO-controlled grid. A non-dispatchable load facility with behind-the-meter generation only gets compensation for load reduction – generation injected into the grid does not qualify for its DR capacity obligation. Physical resources in the IESO Administered Market (IAM) may also participate in DR to provide DR capacity obligation. Only the consumption registered by the IESO Revenue Meter is used to determine the DR Baseline and assessment of DR curtailment

The graphic below illustrates Resolute's configuration prior to a Demand Response activation.



For illustration purposes only

V



Market Rule Amendment Proposal Demand Response

Resolute Thunder Bay

February 12th, 2019



RESOLUTE PULP AND PAPER

Resolute is a global leader in the forest products industry with a diverse range of products, including newsprint, specialty papers, market pulp and wood products. The Company owns and/or operates over 40 pulp and paper mills and wood products facilities as well as power generation assets in Canada (Quebec and Ontario) and the United States.

In Ontario, Resolute's operations include an integrated facility that produces kraft pulp, newsprint from thermomechanical pulp and electricity from cogeneration, three sawmills as well as one pellet plant. These facilities are located in the Northwest region and provide 900 direct jobs, as well as contributing to approximately 3000 indirect jobs.

Thunder Bay is one of Resolute's most significant pulp and paper operations. The mill is a local landmark, operating since 1919. While name and ownership of the facility have changed over the years, its importance to the local community as an employer, taxpayer, community supporter and engaged neighbour has been ongoing.

Resolute Pulp and Paper Operations – Thunder Bay, Ontario Division

- Produces Newsprint
- Produces both NBSK & NBHK Market Pulp
- Produces green renewable power that it sells back to the Province as part of a PPA.

WHY ARE WE HERE ?

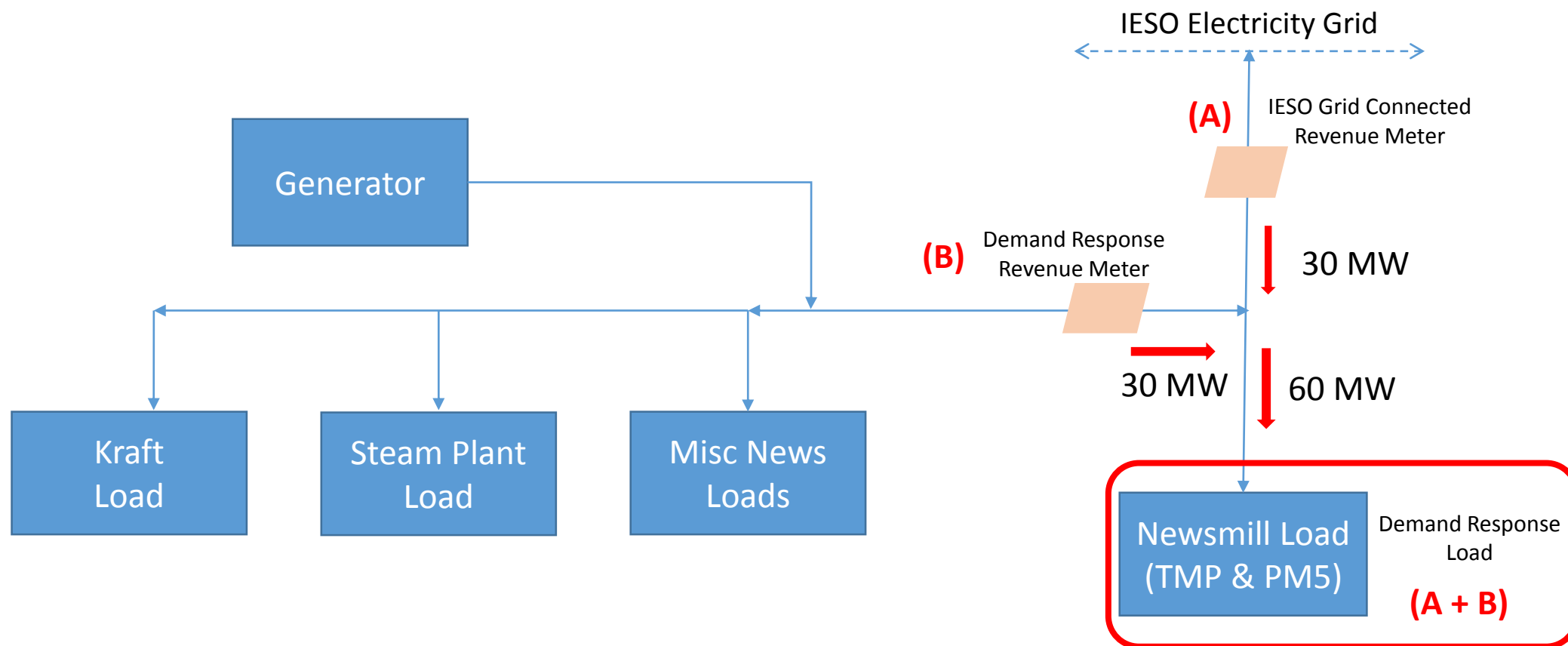
- Resolute has been providing DR to the IESO under the DR2 and DR3 programs created by the IESO's predecessor, the OPA, as well as under the CBDR program and the current DR auction.
- Resolute registered the Thunder Bay news-mill manufacturing facility as the DR Program resource. To do this, Resolute made use of two revenue-grade electricity meters.
 - This configuration was reviewed, accepted, and approved by the IESO.
 - The IESO registered Resolute based on this configuration in the DR-A program.
 - Resolute's DR Capacity was approved by the IESO based on this configuration.

REGISTRATION HISTORY

- October 2015: IESO accepted Resolute's registration into DR-A program.
- December 2015: IESO awarded Resolute a Capacity Obligation based on Resolute's accepted submission.
- June 2017: IESO staff changed its interpretation of the Market Rules.
- August 2017: Resolute learned that the IESO staff was now applying an incorrect interpretation to calculate Resolute's baseline and load change in response to DR activation, which differed from the calculation accepted by the IESO at registration.
- No Market Rule change drove the IESO staff's new interpretation; IESO staff merely changed their position.

SIMPLIFIED OVERVIEW OF RESOLUTE ELECTRICAL DISTRIBUTION

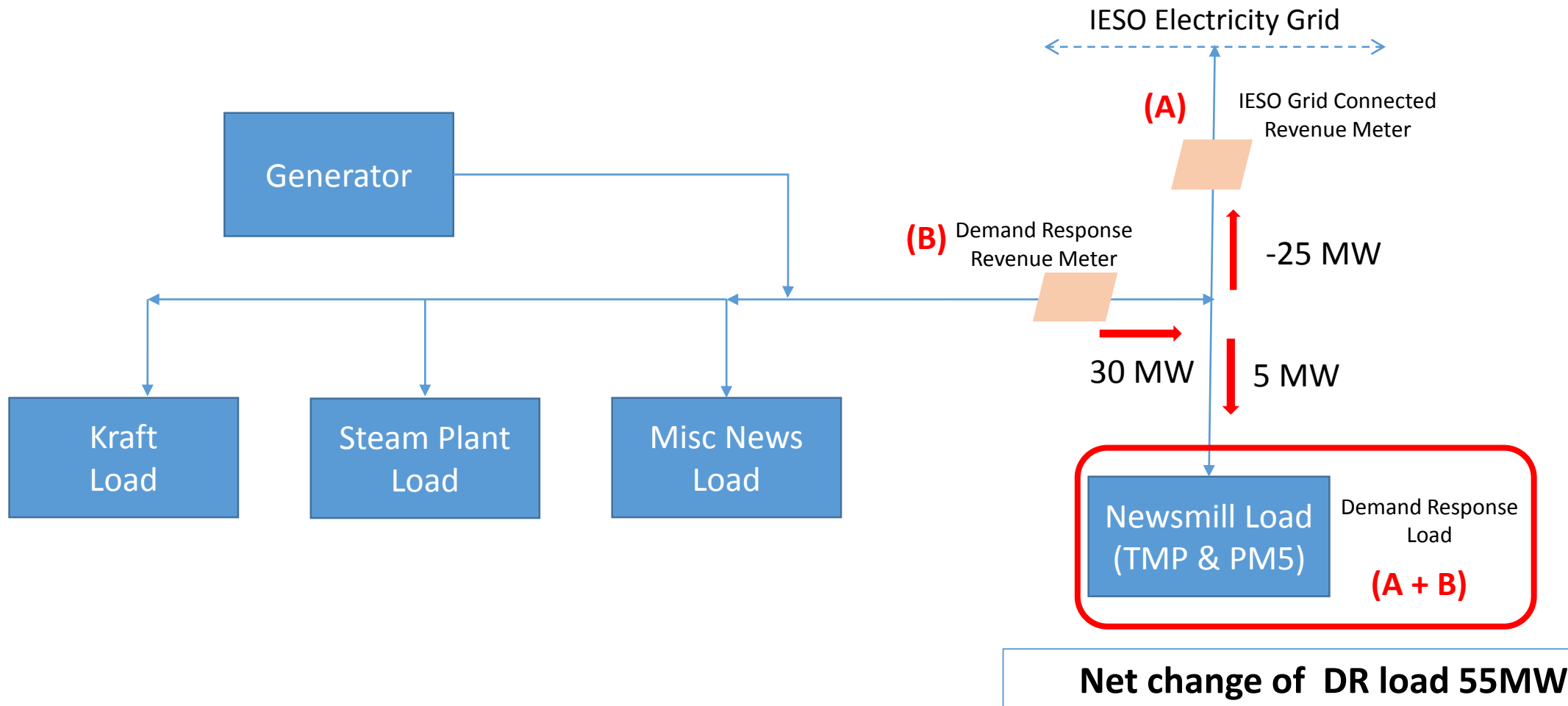
Normal Operation



Demand Response (DR) Baseline load: 60 MW

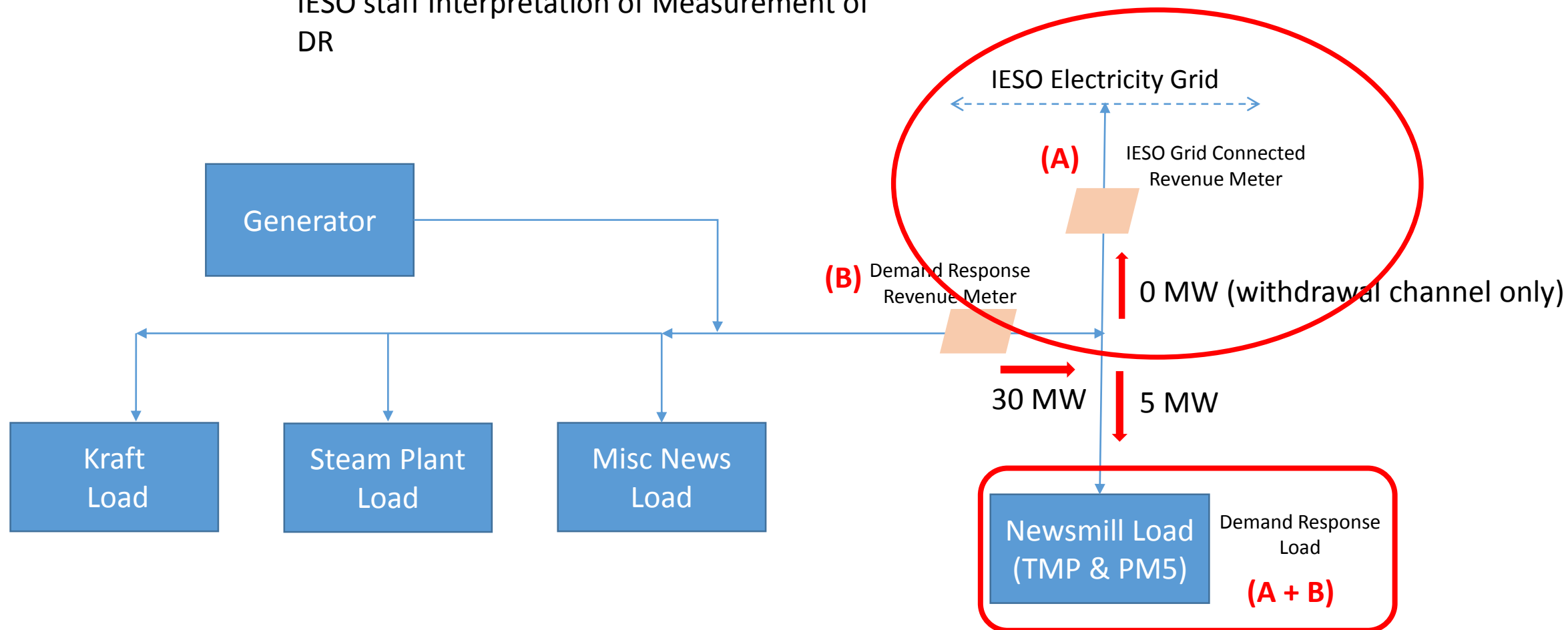
SIMPLIFIED OVERVIEW OF RESOLUTE ELECTRICAL DISTRIBUTION

After DR Activation: Actual



SIMPLIFIED OVERVIEW OF RESOLUTE ELECTRICAL DISTRIBUTION

IESO staff Interpretation of Measurement of DR



Actual change of DR load: 55 MW
IESO's Measurement of change of load: 30 MW

RESULT

- The IESO staff's new interpretation has the impact of changing the Market Rules.
- IESO staff is underestimating the load reduction that the Ontario grid is experiencing when Resolute sheds load.
- The IESO staff is reading only one channel, of only one revenue meter. The Market Rules do not provide for these measurement limitations as applied by IESO staff.

SUMMARY OF RESOLUTE'S POSITION

1. Resolute's position is consistent with the Market Rules; IESO staff's change in position is not based on any Market Rule provisions. Resolute's Market Rule amendment submission clarifies, but does not change the purpose or intent of the DR programs (see proposed revisions on slides 10 and 11).
2. Infrastructure to measure load exists and was approved by OPA and used in DR programs from 2013 onwards until staff's change in position.
3. By shutting down our operation Resolute is fulfilling the intent of the DR program and reducing the load to the grid by 50+ MW.
4. Although the Ontario grid is seeing the benefit of a 50+MW load reduction the interpretation from the IESO staff only acknowledges a 30 MW reduction.

MARKET RULE AMENDMENT SUBMISSION - 1

The Market Rules do not support IESO staff's position. For greater certainty, Resolute proposes Chapter 7, s. 18.2 and s.19.2.1.1 of the Market Rule at be amended to as follows (changes underlined):

- Chapter 7, 18.2.1.4: “For greater certainty, with respect to determining a *demand response market participant's demand response capacity*, nothing in this Rule shall be used to differentiate between meters that connect *demand response market participants* to the IESO-administered grid and meters that measure self-generation.”

MARKET RULE AMENDMENT SUBMISSION - 2

- Chapter 7, 19.2.1.1:

19.2.1 “A *demand response market participant* is eligible to participate as an *hourly demand response* resource provided that the *demand response market participant*:

19.2.11 demonstrates to the satisfaction of the *IESO* that it can provide the *demand response capacity obligation*, as specified in the applicable *market manual*, without differentiation by the IESO between meters that connect *demand response market participants* to the IESO-administered grid and meters that measure self-generation.”

QUESTIONS ?

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Independent Electricity System Operator

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Toronto, ON M5H 1T1
t 416.967.7474
www.ieso.ca

Memorandum

To: Technical Panel
From: Robert Doyle
Date: April 30, 2019
Re: MR-00437: Demand Response – Registration and Metering Requirements

At its meeting on April 16, 2019, the Technical Panel agreed to hold a Technical Panel meeting on May 2 to:

- address the outstanding questions from Technical Panel members; and
- review any stakeholder feedback prior to conducting the Technical Panel vote on the amendment.

Following the April 16 Technical Panel meeting, IESO staff and Resolute confirmed the outstanding information with the Technical Panel by email. Those submissions from the IESO and Resolute are also posted on the Technical Panel [webpage](#).

Also included in the Resolute package are supplemental answers to questions which Resolute has advised have been asked in separate discussions with individual Technical Panel members. The IESO was not aware of nor did it participate in those specific discussions.

The IESO's position continues to be that matters such as Resolute's registration in the Demand Response Auction are part of the subject of the ongoing dispute between Resolute and the IESO, rather than as part of the Technical Panel's consideration of this market rule amendment proposal. While the IESO does not expect any additional submissions to be presented by Resolute or IESO staff at the May 2 meeting, the IESO can provide further clarification on the supplemental questions if requested by Technical Panel members.

The Resolute rule amendment was posted for stakeholder comment from April 16 - 26. No additional stakeholder comments were received.

Panel Action and Next Steps

Once the Technical Panel has discussed the responses to the outstanding information requests, the IESO recommends that the Technical Panel proceeds with a vote to recommend or not recommend the amendment proposal to the IESO Board of Directors for consideration at its June 12, 2019 meeting. Each Technical Panel member's vote will be recorded and each member will have the opportunity to provide rationale to support the position a TP member has taken in

the vote, including a summary of any objections in accordance with the Market Rules, Chapter 4, section 4.3.14.5.

As discussed at the April 16, 2019 meeting, the IESO will not be supporting Resolute's proposal. The IESO believes that the proposed amendment would have an adverse impact on the IESO's reliable and efficient operation of the IESO-controlled grid and would introduce inconsistency in the manner in which participants are treated in the IESO-administered markets.

/rd

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Technical Panel Vote and Rationale on MR-00437 (Resolute)
May 2, 2019

TP Member	Vote (In Favour)	Supportive Rationale
Robert Bieler	No	Mr. Bieler thanked all participants for a lively deliberation, but indicated that he had put much of that discussion aside to look at the merits and implications of the proposed Market Rule amendment in its own right. He said he'd understood that Resolute's configuration could deliver a certain amount of capacity reduction at the IESO revenue meter, and that's what consumers and ratepayers should be paying for. With its own generation facility, Resolute would have the opportunity to sell power into the grid under other programs if it wished to do so, he said, but the objective and intent of the demand response program is to measure demand reductions at the IESO-controlled grid. While he agreed with Mr. Vegh that that expectation was not stated explicitly, Mr. Bieler said it was self-evident that that's what the IESO cares about and sees. On that basis, any past oversights or errors should not outweigh the spirit and intent of the way the program was designed to operate.
Robert Reinmuller	No	Mr. Reinmuller stated that, with all due sympathy to Resolute for the history leading up the proposed amendment, those matters did not reflect in his vote. He said the fundamental goal of managing the grid and controlling capacity and reliability dictated a clear, unambiguous, unique measurement point. Grid actions rely more and more on fast responses occurring in seconds or minutes, 365 days a year, he added, and grid automation requires clean data, based on clear measurements of load and generation. On that basis, he said he supported a unique measurement point that does not introduce any questions about the quantities required or received, and therefore opposed the proposed Market Rule amendment.
David Forsyth	Yes	Mr. Forsyth commended the IESO for strictly upholding and vigorously defending the Market Rules as staff interpret them, but said his vote turned on intent, not interpretation. As an active participant in the Demand Response Working Group during the evolution of the demand response program, Mr. Forsyth said he represented a large industrial user's interest by ensuring the rules and procedures were compatible with its operating characteristics and ability to participate after the transition was complete. He

		recalled a process that included many new and amended rules that would have material effects on DR participants, all of them debated and discussed at length. But he said he had no recollection and could find no record of discussions about existing DR metering configurations that would be disallowed under the Demand Response Auction. As a party to the CBDR contracts, Mr. Forsyth said the IESO would have had access to all the relevant details, including metering configurations. To its credit, since market opening, he said the IESO has always made him aware of any changes that might have a negative impact on his company's participation in markets or programs, and provided opportunities for input and comment. But in this case, neither Resolute nor the IESO indicated that any of that interaction had occurred. He said the proposed Market Rule amendment would prevent Resolute's continued participation with its pre-existing metering configuration.
Joe Saunders	No	After tracing the history of the proposed Market Rule amendment, Mr. Saunders said the overarching issue was that the IESO's demand response programs do transition over time, and facilitating participation does not mean the rules never change, or that a participant in a past program automatically qualifies for the current one. The Technical Panel gave careful consideration to the unintended consequences that could arise from the assumption of an automatic transition for Resolute or any other market participant, and Mr. Saunders cited the possibility of other market participants entering the program with similar meter configurations as problematic and potentially harmful. He cited other technical concerns that had arisen, as well, including the bi-directional flow of energy onto the IESO-controlled grid. Mr. Saunders said the IESO should give consideration to the way new programs are rolled out, particularly with market participants that are not primarily focused on energy, and should provide better support to help those clients understand the applicable programs and navigate the regulatory process. But in this instance, he said he could not support the Market Rule amendment.
Julien Wu	Yes	Mr. Wu said he had not been a part of the stakeholdering process during the transition to the Demand Response Auction, so he couldn't weigh in on the past. He said he was inclined to accept the IESO's judgement and expertise if staff advised that a proposal was

	not satisfactory from a reliability and rate-payer benefit's perspective. He adds that the Technical Panel's mandate was to safeguard the rulemaking process, not to engage in dispute resolution. Yet he feels that the debate has been on a dispute regarding market process and outcome, and thus is outside the Technical Panel's mandate and expertise. But he explained that he had two reasons to vote in favour of the proposed amendment—so that it could be considered by the Board. First, given that the IESO designed and had complete oversight of the DR Auction process, and because the IESO approved auction participants' configurations in the qualifying process, the onus was on the IESO to assess the suitability of Resolute's meter configuration before allowing Resolute to participate in the auction. As a market participant, Resolute can only rely on the IESO's approval to make business and investment decisions. And fact of the matter was that the IESO approved Resolute's offer configuration in more than one auction. If Resolute's configuration was deemed unsatisfactory after the fact, he said, the IESO could have used rules, processes, and notification bulletins to correct the gap between the Market Rules and its original intent, and disqualify Resolute and other similar participants from future auctions. The failure to pursue those processes might have explained the lack of feedback from other DRA participants. Again, if Resolute's configuration was approved by the IESO and discovered to be problematic after the fact, the IESO has processes for changing and correcting market rules going forward. The subsequent disqualification of Resolute's already approved, offered and cleared capacity amounted to retroactive rulemaking. Mr. Wu said he couldn't support retroactive rulemaking as a market participant. He added that, from experience buying and selling capacity within his sector, most of the work and business decisions come at the qualification stage. So it would be troubling for a market participant to bid successfully, receive a capacity obligation, deliver the product, then be penalized because the qualification process it followed and relied on to make business decisions were inaccurate. Noting that this was the first time a market participant had ever brought forward a proposed Market Rule amendment, Mr. Wu said he hoped there would be lessons learned from the process.

Phil Lasek	Yes	Mr. Lasek agreed with the rationale noted by Mr. Forsyth and Ms. Griffiths. He also stated that legacy installations should be able to continue with their current meter installations. For plants to change to meet the new rules, existing electrical switchgear changes would be expensive and sometimes difficult. IESO should provide assistance in providing options to meet the intent of the DRA.
Robert Lake	No	Mr. Lake said he had hoped consideration of the proposed amendment would point toward an opportunity to bring more participants into the demand response market. He said that ultimately demand response is just one aspect of reliability. Mr. Lake noted that we use 3% or 5% voltage cuts, spinning reserve, imports, over and under voltage protections and incremental capacity. Demand response is a tool that must be available. He said he accepted the position of the staff, who manage the system every day, and have better knowledge than us, that the proposed amendment could have a negative impact on system reliability, efficiency, and cost.
Ron Collins	No	Mr. Collins said he saw no evidence that the IESO had explicitly accepted Resolute's metering configuration, and no evidence of an actual or implied warranty that participants in past demand response programs would automatically be accepted into a new program. He expressed concern that the proposed amendment would introduce the potential for market participants to use a combination of reductions at the IESO-controlled grid and behind-the-meter activities to satisfy their DR capacity obligation, therefore not realizing the expected DR capacity contribution being realized at the ICG as intended by the DR programs, while potentially introducing inconsistency in the treatment of participants in the IESO-administered markets. Mr. Collins expressed concern about the IESO's handling of the process. He said it is evident that the IESO delayed in providing the Technical Panel information when the issue first emerged. Further, the IESO did not provide responses to Resolute in a timely manner in all circumstances. Finally, the IESO appeared to be reluctant at times to disclose information throughout the process to all parties. I therefore would recommend the IESO undertake a review of the process in aim to improve the transparency, efficiency and effectiveness of the process.

Sushil Samant	No	Mr. Samant said he agreed with Mr. Urukov’s comments, adding that: • a market participant shouldn’t expect to apply the rules from a past program after a new one is introduced, • the current program has no ambiguity in specifying load reductions at the IESO-controlled grid (<i>Demand Response Capacity</i> is a defined term), • he had based his vote on issues of fairness to ratepayers, grid reliability and unintended consequences, and stated that the events that occurred in the past are beyond the scope of the TP. “The past is the past”. He finds it encouraging that RFP is pursuing another “process” with the IESO over their past interactions and hopes them success - because at the end of the day, “we’re all loads. We all pay.”
Vlad Urukov	No	Mr. Urukov acknowledged that a transition from a program to a market-based solution could create tensions between new restrictions imposed by the market construct and the goal of retaining and expanding participation. Detailed stakeholding should flesh out and resolve those issues. After reviewing the historical documentation, he said he concluded that the unique configuration of Resolute’s Thunder Bay facility was not subject to specific, dedicated stakeholder review, and that based on their interpretation of information available at the time Resolute understood that the DR Auction would not introduce any changes that would apply to that facility—the unique configuration at the facility was only flagged during the failed activation in 2017. Mr. Urukov said his duty as a Technical Panel member was to evaluate the proposed Market Rule based on his understanding of its intent, as laid out in Chapter 17, 18.1.1 and Chapter 11 of the Market Rules, and Market Manual 12, Section 6.3.2, which he said contained no explicit language covering Resolute’s specific case. But he expressed concern about whether Resolute’s proposal to allow “any metering configuration that was approved under DR1, DR2, DR3 or CBDR”, absent additional limitations, may allow behaviour that is contrary to the intent of the demand response program. While Resolute’s utilization might not change, nothing would prevent some other market participant from applying the DR1, DR2, DR3 or CBDR enabled configuration in a different way and producing unintended consequences. Allowing for use of two channels of two meters where one meter is

		embedded, without additional details, is insufficient to prevent such unintended outcomes, Mr. Urukov concluded. He said the IESO should craft rules that contemplate all configurations and applications, even if they don't exist at the time of crafting, and therefore he could not support the rule amendment as proposed.
Sarah Griffiths	Yes	Ms. Griffiths said the question to be settled was how the Resolute configuration failed to translate into the Demand Response Auction, especially when only three direct contact customers and three aggregators were involved in the transition. On that issue, she said she supported Mr. Forsyth's comments on IESO's intent, and agreed with his recollection of the DR transition process, in which she was also a participant. She noted that the IESO's current capacity qualification process for the DRA was a best practice among electricity markets, and said it should remain in spite of the issue currently before the Panel. Ms. Griffiths supported the proposed Market Rule amendment, arguing that it would have limited impact on other resources and avert an approximately 50% de-rate of a market participant—an outcome that she said was not a business signal the IESO should want to send. She added that the IESO had an opportunity to put forward clear market rules on how resources would be measured in the change from the DRA to the TCA, and again during the development of the ICA, and had acknowledged the potential value in different metering configurations. How to create and gain access to that value should be a topic for discussion during upcoming consultations on competitive auction design, she said.
Jessica Savage	No	Ms. Savage reiterated the IESO's position that the proposed amendment would have an adverse impact on the reliable, efficient operation of the IESO grid and introduce inconsistency in the treatment of participants in IESO-administered markets.

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Summary of Stakeholder and Technical Panel Comments on Impact of Rule Amendment on Consumers re Prices, Reliability and Quality of Electricity Service

This form summarizes any stakeholder comments and comments received from any *Technical Panel* discussions with respect to the impact a *market rule amendment* on the interests of consumers with respect to prices and the *reliability* and quality of electricity service.

Terms and acronyms used in this Form that are italicized have the meanings ascribed thereto in Chapter 11 of the *Market Rules*.

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00437
Title:	Demand Response – Registration and Metering Requirements

PART 2 – SUMMARY OF COMMENTS

Please indicate the forum at which the comments were made and the applicable *market participant* class, if any, of the person making the comment.

Impact of Rule Amendment on Price

A Technical Panel member said that it was their understanding that Resolute is compensated by two revenue streams: a power purchase agreement for the energy and a demand response commitment. The member asked that in light of the Resolute configuration (and without discussion of the specific contractual terms) do the two streams of revenue generate over-compensation? If not, why not.

A Technical Panel member noted that from a consumer's point of view, they would prefer that the IESO use the lowest cost option, demand response / incremental capacity, to keep the system stable. The member asked if there was insight as to what option is best for the consumer.

A Technical Panel member asked if some compromise were to be provided to accommodate Resolute, are we certain that others in a similar circumstance will not want the same treatment? And are we obligated to treat all market participants in the same manner?

A Technical Panel member noted that the March 5, 2019 IESO presentation (page 14) acknowledged that the Resolute configuration could potentially benefit ratepayers. The member asked if the IESO was able to quantify this benefit even in general terms? Specifically, does the combination of 30 MW of reduced demand and 25 MW of injection provide a similar benefit to 55 MW of demand reduction?

Impact of Rule Amendment on Reliability

A Technical Panel member asked whether a concern was that Resolute could be recognized for 55 MW of demand response at a time when it was delivering no resource to the grid.

PART 2 – SUMMARY OF COMMENTS

A Technical Panel member asked whether the intent of the DR Auction program was for market participants to reduce load in order to protect the integrity of the system. The member noted that its transactions and obligations rely on revenue meters installed at the station level and must abide by the readings on a high-side, transmission-level metering device and meet the grid's requirements for shedding load.

A Technical Panel member said that from the perspective of the planning that takes place at the grid control centre, there's a difference between removing 50 MW as opposed to removing 30 MW and injecting 20 MW, since the injection is harder to plan for and may not be located where it is needed.

Impact of Rule Amendment on Quality of Electricity Service

None

Stakeholder Comments

No comments were received when the proposed market rule amendment was posted for public consultation by the Technical Panel.

Date Summaries Prepared: May 27, 2019

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George Vegh
Direct Line: (416) 601-7709
Direct Fax: (416) 868-0673
Email: gvegh@mccarthy.ca

May 27, 2019

VIA EMAIL

Mr. Michael Boll
Corporate Secretary
Independent Electricity System Operator (IESO)
120 Adelaide Street West, Suite 1600
Toronto, ON M5H 1T1

Dear Mr. Boll:

Re: MR-00437

I understand that the IESO Board will meet on June 12, 2019 to consider MR-00437, Resolute's proposed amendment to the Market Rules that is designed to restore the original intention of the Market Rules respecting demand response qualifications of facilities (the "**Amendment**").

Resolute seeks to ensure that it be able to directly communicate with the Board and not have to do so through IESO staff.

Even prior to Resolute proposing the Amendment, staff said that it would use its position in the amendment process to stop the Amendment from being approved. Consistent with this position, staff used its position as facilitator of the Technical Panel process to undermine the Amendment. This included:

- withholding the Amendment from the Technical Panel;
- misleading the technical panel on the appropriateness of communications with Resolute; and
- using its role in disseminating information to the technical panel to undermine the proposal by questioning the accuracy of the information without specifying any alleged inaccuracies.

In light of this conduct, Resolute does not have confidence that staff can fairly present this to the IESO Board and, therefore, respectfully requests that it be able to do so directly both in writing and in person. Resolute also requests that it be informed of all communications among IESO staff and any Board member so that it can respond to staff's characterization of the Amendment or the process so far.

Please let me know the time and place for the Board meeting and the timelines for providing materials to the Board.

Yours truly,

A handwritten signature in blue ink, appearing to read 'George Vegh', written over a blue circular stamp.

George Vegh

GV:mt

X



Independent Electricity System Operator

1600-120 Adelaide Street West
Toronto, ON M5H 1T1
t 416.967.7474
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June 4, 2019

George Vegh
McCarthy Tétrault LLP
PO Box 48, Suite 5300
Toronto-Dominion Bank Tower
Toronto ON M5K 1E6

Dear Mr. Vegh:

Re: MR-00437

I acknowledge receipt of your letter dated May 27, 2019, and I have discussed your request with the Chair of the IESO Board.

Your letter identifies that your request to make submissions directly to the IESO Board both in writing and in-person is based on your lack of confidence that IESO staff can fairly present the amendment proposal to the IESO Board. Further, you asked to be informed of all communications among IESO staff and any IESO Board member so that it can respond to staff's characterization of the amendment or the process so far.

The IESO has committed to publishing all of the materials that will be provided to the IESO Board in relation to its deliberations on market rule amendments¹ on its public website. This practice is intended to provide greater transparency into IESO decision-making as it relates to market rule amendments and was recently implemented in accordance with IESO Board-approved recommendations informed by the Advisory Group on IESO Governance and Decision-Making. Accordingly, the IESO will publish all of the materials that will be provided to the Board in relation to Resolute's market rule amendment proposal on the IESO's public website.

A copy of your May 27, 2019 letter together with this responding letter will also be provided to the IESO Board in advance of the June 12 meeting, and will be published on the IESO website with the other materials being provided to the IESO Board in relation to Resolute's market rule amendment proposal.

¹ Refer to recommendation "1" in the Report available at: <http://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/igdm/igdm-20181206-advisory-group-recommendations-report.pdf?la=en>

The Chair of the IESO Board has agreed to the Board receiving an additional written submission from Resolute, should Resolute wish to make such a submission. Please ensure that Resolute's submission is limited to ten pages, and is submitted to me by no later than **3:00 pm, Friday, June 7, 2019**. This will provide the IESO Board sufficient time to review the submission prior to the June 12 meeting.

Please note that in my role as Corporate Secretary I will not comment on the statements made in your letter. Lack of comment in this letter should not be taken as agreement by the IESO with any of the statements or allegations contained in your May 27 letter.

Yours truly,

A handwritten signature in cursive script, appearing to read 'Michael Boll', written in dark ink.

Michael Boll
Corporate Secretary

xi



George Vegh
Direct Line: (416) 601-7709
Direct Fax: (416) 868-0673
Email: gvegh@mccarthy.ca

June 5, 2019

VIA EMAIL

Mr. Michael Boll
Corporate Secretary
Independent Electricity System Operator (IESO)
120 Adelaide Street West, Suite 1600
Toronto, ON M5H 1T1

Dear Mr. Boll:

Re: MR-00437

I confirm receipt of your letter to me of June 4, 2019, which responded to my enquiry of May 27, 2019 and my follow up on that enquiry on June 4, 2019. My May 27 letter also requested that you advise of all communications among IESO staff and any IESO Board member on the proposed amendment.

Your letter states that the IESO Board will meet to consider Resolute's proposed market rule amendment on June 12, 2019, that various materials respecting the proposed amendment "will be published on the IESO website" and that any written submissions by Resolute must be provided within 3 days of your letter, i.e., by June 7, 2019. Although you characterized the IESO as being committed to providing "greater transparency into IESO decision-making as it relates to market rule amendments", you did not respond to my request for communications among staff and any IESO Board member.

None of your proposed next steps are consistent with the text or purpose of the market rules.

The market rules provide that, following a vote of the technical panel on a proposed amendment, the technical panel shall submit a written report (the "Report") to the IESO Board setting out, among other things (i) the recommendations of the technical panel and the reasons for its recommendations,¹ (ii) a summary of the procedure followed by the technical panel in considering the matter,² and (iii) a record of the vote of each member of the technical panel in respect of each of the recommendations made in the report.³

The IESO is required to publish the recommendations in the Report and "give notice thereof to ...any person who made an amendment submission". In the notice and publication, the IESO shall, at the request of the technical panel, invite market participants to make "written

¹ Market Rules, Chapter 3, ss. 4.3.14.1.

² Market Rules, Chapter 3, ss. 4.3.14.2.

³ Market Rules, Chapter 3, ss. 4.3.14.5.

submissions to the IESO Board concerning the subject of the amendment within seven business days” of the notice.⁴

In this case, IESO staff has not published a Report and has not given the opportunity to comment on the Report. Staff has also reduced the comment period from the seven day business day requirement in the market rules to three calendar days. As a result, Resolute is in the position of not being able to review, let alone comment on staff’s Report on Resolute’s proposed market rule amendment. This is clearly inconsistent with both the text of the market rule and any semblance of a fair, reasonable, or transparent process.

This marks the third time in this process that IESO staff has attempted to skirt the market rules.

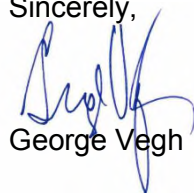
First, IESO staff changed Resolute’s participation requirements in the demand response auction without reference to the market rule requirements for rule amendments.

Second, when Resolute addressed this concern by proposing a market rule amendment that restored its participation requirements, IESO staff initially withheld the proposal from the Board and then, when it finally provided it, IESO staff went out of its way to provide misleading information to the technical panel on how it may communicate with Resolute.

As a market rule proponent, Resolute has the entitlement under the Market Rule to comment on the Technical Panel’s recommendations. This necessarily involves commenting on the Report so that it can address IESO staff’s characterization of, among other things, (i) the recommendations of the technical panel and the reasons for its recommendations,⁵ (ii) a summary of the procedure followed by the technical panel in considering the matter,⁶ and (iii) a record of the vote of each member of the technical panel in respect of each of the recommendations made in the report.⁷

Please advise how you intend to bring this process into compliance with the requirements under the market rules.

Sincerely,



George Vegh

⁴ Market Rules, Chapter 3, ss. 4.3.14.17.

⁵ Market Rules, Chapter 3, ss. 4.3.14.1.

⁶ Market Rules, Chapter 3, ss. 4.3.14.2.

⁷ Market Rules, Chapter 3, ss. 4.3.14.5.

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Independent Electricity System Operator

1600-120 Adelaide Street West
Toronto, ON M5H 1T1
t 416.967.7474
www.ieso.ca

June 6, 2019

George Vegh
McCarthy Tétrault LLP
PO Box 48, Suite 5300
Toronto-Dominion Bank Tower
Toronto ON M5K 1E6

Dear Mr. Vegh:

Re: MR-00437

I am writing in response to your letter of June 5, 2019.

With respect to your suggestion that the IESO has acted in violation of the *market rules* by not providing Resolute with the opportunity to comment on the written report of the Technical Panel, I note for you that the *market rules* do not require that the IESO publish the entire report of the Technical Panel, but instead, just the recommendations.¹ In accordance with the *market rules*, the Technical Panel's recommendations were published on May 9, 2019 on the IESO's website (<http://www.ieso.ca/Sector-Participants/IESO-News>) and a Resolute representative was given notice of this recommendation that same day through the IESO's Bulletin weekly email. In addition, both you and representatives of Resolute were present at the meeting of the Technical Panel on May 2, 2019 at which the Technical Panel voted not to recommend the market rule amendment to the IESO Board and at which each panel member articulated his or her reasoning behind their respective votes.

The Technical Panel did not request that the IESO invite market participants or other interested parties to make written submissions to the IESO Board objecting to the Technical Panel's recommendation, and neither you nor Resolute's representatives asked at the time that this be done. For this reason, there was no obligation on the IESO (under Chapter 3, section 4.3.15 of the *market rules* or otherwise) to grant Resolute the opportunity to provide written submissions to the IESO Board. Furthermore, the seven

¹ Chapter 3, section 4.3.15 of the *market rules*: "The IESO **shall publish the recommendations** contained in the report of the technical panel referred to in section 4.3.14 and give notice thereof to all market participants and to any person who made an amendment submission or written submission to which the recommendations relate. In this notice and publication, the IESO shall, **at the request of the technical panel**, invite market participants and other interested persons to make written submissions to the IESO Board concerning the subject amendment, within seven business days of the date of giving of notice, objecting to the technical panel's recommendation and setting forth the reasons for the objection. [...]" (emphasis added)

day comment period provided for in section 4.3.15 of the *market rules*, which you reference in your letter, relates to submissions in response to that invitation, and thus similarly does not apply here.

Nonetheless, upon further discussion with the Chair of the IESO Board, he has agreed to extend the deadline for Resolute's written submissions, if any, until **4:00 pm on Monday June 10, 2019**. This will provide the IESO Board time to review the submission prior to the June 12 meeting.

I also note your repeated request for copies of all communications among staff and any IESO Board member. The commitment of the IESO, as indicated in my letter of June 4, 2019, is to publish all materials that will be provided to the IESO Board in relation to its deliberations, and the materials were posted today on the website at <http://www.ieso.ca/en/Sector-Participants/Change-Management/Proposed-Market-Rule-Amendments>.

Contrary to your other suggestions in your letter it is IESO staff's position that it has historically complied with the *market rules*.

Yours truly,

A handwritten signature in cursive script, appearing to read 'M. Boll', written in dark ink.

Michael Boll
Corporate Secretary

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George Vegh
Direct Line: (416) 601-7709
Direct Fax: (416) 868-0673
Email: gvegh@mccarthy.ca

June 10, 2019

VIA EMAIL

Independent Electricity System Operator (IESO)
120 Adelaide Street West, Suite 1600
Toronto, ON
M5H 1T1

Attention: IESO Board of Directors

Dear Sirs/Mesdames:

Re: MR-00437

Introduction

This letter is in support of a proposed market rule amendment filed by Resolute FP Canada Inc. ("Resolute", and the "Proposed Amendment"). Resolute thanks the Board for the opportunity to provide written submissions and reiterates its offer to attend at the June 12 Board meeting in person to answer any questions that the Board may have.

The purpose of the Proposed Amendment is to restore the Demand Response Auction ("DRA") market rules to their original intention with respect to the determination of a DRA market participant's demand response capacity (Chapter 7, s. 18.2) and eligibility to participate as an hourly demand response resource (Chapter 7, s. 19.2.1.1) (collectively, the "Capacity and Eligibility Requirements").

The original intention of the DRA respecting Capacity and Eligibility Requirements rules was to transition the Demand Response 2 ("DR2"), Demand Response 3 ("DR3"), and Capacity Based Demand Response ("CBDR") programs to the DRA program (collectively the "DR Programs"). As staff put it at the time the DRA was proposed, the purpose of the transition to the DRA was, **"to facilitate participation by current demand response providers**, potential new participants and new technologies."¹

The Proposed Amendment became necessary because, after the DRA was passed and in effect, IESO staff effectively changed the market rules by measuring demand response reductions only by reference to electricity that had been withdrawn from the IESO grid, and no longer recognizing reductions of load that had been served by on-site generation.

¹ IESO, Market Rule Submission, Demand Response Auctions – Participant Authorization & Facility Registration, Version 5, p. 2 (MR-00416-R00), undated.

As discussed below, since its first participation in various demand response programs in 2013, Resolute's Thunder Bay pulp and paper mill (the "Mill") was served both by the IESO grid and by on-site generation. When Resolute was called upon to reduce load, it met that obligation by shutting the Mill and ceasing to consume electricity. This approach was well known by the IESO and the metering configuration that implemented this approach was approved by the IESO under all of the DR Programs, including the DRA.

However, sometime after the passage of the market rule establishing the DRA, the IESO changed its position and refused to recognize the reduction of load that was supplied by on-site generation. It did this without notice and without seeking a change to the market rules to support its new position.

Resolute is therefore proposing a market rule amendment to restore the original intention of the DRA. The text of the Proposed Amendment is set out below (changes to current rules underlined):

Chapter 7, Section 18.2.1.2:

18.2.1 No person may participate in a demand response auction nor receive a demand response capacity obligation unless that person has:

18.2.1.2 submitted and has been approved by the IESO, using forms and procedures as may be established by the IESO in the applicable market manual, the amount of demand response capacity that the demand response auction participant is willing to provide, provided that nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3 or CBDR programs;

Chapter 7, Section 19.2.1.1:

19.2.1 A demand response market participant is eligible to participate as an hourly demand response resource provided that the demand response market participant:

19.2.1.1 demonstrates to the satisfaction of the IESO that it can provide the demand response capacity obligation, as specified in the applicable market manual, provided that nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3 or CBDR programs;

Resolute submits that, by passing the Proposed Amendment, the IESO Board can instill confidence in the market rule process by ensuring that market rules will not be changed unless the proper rule amendment process is followed. This is particularly important as the IESO pursues Market Renewal.

Market Renewal involves the transition of contractual protections to a rules-based system. This transition will only be successful if the IESO can credibly commit to following market rules and not changing them mid-stream without following the market rule amendment process. If the integrity of the rules-based approach is not vindicated, then market participants will be unable to confidently invest in a market administered by the IESO. The result will be higher risk and therefore higher costs for all resources and all electricity customers.

It is worth noting in this regard that Technical Panel members who represent commercial market participants voted overwhelmingly in favour of Resolute's proposed amendment. In all, 80% of

the Technical Panel Members who are unregulated market participants supported the Proposed Amendment. This consisted of representatives of directly connected large customers, demand response providers, and wholesalers.

As was stated by Brookfield Energy Marketing, representing wholesale customers:

“As a market participant, Resolute can only rely on the IESO’s approval to make business and investment decisions. **And fact of the matter was that the IESO approved Resolute’s offer configuration in more than one auction.** If Resolute’s configuration was deemed unsatisfactory after the fact, he said, the IESO could have used rules, processes, and notification bulletins to correct the gap between the Market Rules and its original intent, and disqualify Resolute and other similar participants from future auctions. The failure to pursue those processes might have explained the lack of feedback from other DRA participants. **Again, if Resolute’s configuration was approved by the IESO and discovered to be problematic after the fact, the IESO has processes for changing and correcting market rules going forward. The subsequent disqualification of Resolute’s already approved, offered and cleared capacity amounted to retroactive rulemaking. Mr. Wu said he couldn’t support retroactive rulemaking as a market participant.**”²

The following discussion addresses (i) Resolute’s participation in the DR programs; (ii) the original intention of transitioning the DR2, DR3, and CBDR programs to the DRA; (iii) IESO Staff’s change in position; and (iv) Resolute’s attempts to bring this amendment through the amendment process.

(i) Resolute’s Participation in the DR Programs

Resolute’s Thunder Bay pulp and paper mill participated in the DR Programs since 2013. In establishing its participation in the DR Programs, Resolute worked with the Ontario Power Authority (“OPA”) (the predecessor to the IESO) and the IESO. The metering configuration adopted by Resolute was designed by the OPA to ensure that Resolute met its obligations by reducing its load and not by injecting electricity into the IESO-controlled grid. The load and the generator are therefore metered separately. The amount of generation provided to the Mill is, and remains, separately metered and is visible to the IESO.

A diagram of the configuration is attached as Schedule A.

During this entire period, neither the OPA nor the IESO ever identified any issues with the configuration and, did specifically did not raise any reliability concerns with the configuration.

To the contrary, when the DRA was being implemented in November, 2015, in response to an enquiry from Resolute confirming the continuation of its configuration, Resolute’s customer representative, Jason Grabevec advised Resolute that he was having “the right people review and confirm the metering configuration question.” Shortly after this, Resolute reported internally

² Technical Panel Vote and Rationale on MR-00437 (Resolute), May 2, 2019 (Julien Wu).

that “Jason gave me a quick call to let us know metering is okay with using the existing CBDR metering setup for the new DR Auction.”³

(ii) The original intention of transitioning the DR2, DR3, and CBDR programs to the DRA

The market rules for the transition from the DR2, DR3 and CBDR programs to the DRA was the subject of stakeholder consultation and Technical Panel meetings from late 2014 to the summer of 2015.

The two Technical Panel members who participated in the stakeholdering of the transition to the DRA agreed that the IESO’s current position was not put forward for consideration in that process.

The Technical Panel member representing large customers stated the following:

“As an active participant in the Demand Response Working Group during the evolution of the demand response program, Mr. Forsyth said he represented a large industrial user’s interest by ensuring the rules and procedures were compatible with its operating characteristics and ability to participate after the transition was complete. He recalled a process that included many new and amended rules that would have material effects on DR participants, all of them debated and discussed at length. **But he said he had no recollection and could find no record of discussions about existing DR metering configurations that would be disallowed under the Demand Response Auction.**”⁴

Similarly, the Technical Panel member representing Demand Response providers stated that “she supported Mr. Forsyth’s comments on IESO’s intent, and agreed with his recollection of the DR transition process, in which she was also a participant.”⁵

Not only was there no suggestion that existing configurations would be disallowed in the stakeholdering discussions, IESO staff represented to stakeholders and Technical Panel members that, under the DRA, existing DR resources would continue to be recognized, provided, of course, that they were in merit in the DR auction.

Staff’s representations in its market rule amendment submission for the DRA was that the purpose of the transition was **“to facilitate participation by current demand response providers**, potential new participants and new technologies.”⁶

In its January 20, 2015 presentation to the technical panel on the proposed amendment, IESO staff stated that “the IESO’s goal for demand response” was to:

“Achieve greater value and economic use of DR through improved integration of existing DR contracts in the IESO-administered energy market and dispatch

³ Emails from Jason Grbavac (IESO) to Cara Degelman (Resolute), November 5, 2015, and from Cara Degelman to Tony Ruberto (Resolute) November 17, 2015.

⁴ Technical Panel Vote and Rationale on MR-00437 (Resolute), May 2, 2019 (David Forsyth)

⁵ Technical Panel Vote and Rationale on MR-00437 (Resolute), May 2, 2019 (Sarah Griffiths)

⁶ IESO, Market Rule Submission, Demand Response Auctions – Participant Authorization & Facility Registration, Version 5, p. 2 (MR-00416-R00), undated.

process, and over the longer term through the expansion of DR market participant categories.”⁷

In the same presentation, IESO staff stated that transitioning to the DRA would involve “implement[ing] market rules to **transition DR3 contractual terms to a market structure** (capacity based demand response)”⁸

If anything, the IESO represented that the DRA would *increase* DR participation, not disqualify current providers. For example, in February, 2015, in response to a stakeholder question on the difference between DR under the OPA programs and DR under the DRA, staff stated the following:

“The IESO’s definition of demand response is inclusive of the demand response definition used by the Ministry of Energy and the OPA. However, the IESO’s definition is **intentionally broader to allow the utilization of DR to provide a wide range of services to the electricity market over time.**

This is reflective of the IESO’s mandate in the LTEP to ‘evolve existing DR programs and introduce new DR initiatives.’”⁹

Similarly, in a June 2, 2015 presentation to the technical panel, IESO staff stated:

“In order to attract the broadest range of potential DR providers, **including current demand response providers** as well as new entrants and new technologies, we have sought to reduce the requirements for participation in the auction.”¹⁰

Based on these representations, the Technical Panel approved the DRA market rule amendments regarding Participant Authorization & Facility Registration on July 7, 2015.¹¹

Attached as Schedule B is a comparison of the rules under the CBDR and the rules under the DRA. As appears from that attachment, the rules respecting Capacity and Eligibility Requirements were unchanged in all material ways. There is no reference in the amendment to a required change in metering configurations or to any requirement that the measurement of demand reduction must be measured only as a reduction of demand withdrawn from the IESO-controlled grid.

(iii) IESO Staff’s change in position

On June 14, 2017, without notice or explanation, the IESO issued a preliminary settlement statement to Resolute that did not follow this approach. That statement contained a ‘claw back’ of capacity payments based on an alleged activation failure. After numerous enquiries by Resolute, staff advised that the reason for the failure is that the configuration that Resolute had used since 2013 and that the IESO approved again in November, 2016 was not acceptable

⁷ Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 2

⁸ Demand Response Auctions – Overview, Presentation to Technical Panel, January 20, 2015.p. 3

⁹ DR Auction Market Design, Stakeholder Feedback, February 12, 2015.

¹⁰ Demand Response Auctions – Overview, Presentation to Technical Panel, June 2, 2015.p. 8

¹¹ See Market Rule Amendment Proposal MR-00416-R00 Recommended by Technical Panel and Submitted for IESO Board Approval on July 7, 2015.

because some of the load reduction was served by self-generation and not the IESO-administered grid.¹²

This new approach was not accompanied either by a change in the market rules which disallowed this configuration or a proposed market rule amendment to implement this change. As a result, there was no opportunity for a public and transparent consideration of the costs and benefits of staff's proposed new approach.

As indicated, Resolute believes that this type of unilateral change to market participant requirements causes uncertainty and risk. This is why the Proposed Amendment provides that the current rule should be amended to reflect the original intention; if staff believes that an alternative approach is superior, it should propose that in a subsequent market rule amendment.

(iv) The Technical Panel Process

On October 11, 2018, Resolute filed the Proposed Amendment. The purpose of the Proposed Amendment is to restore the *status quo* that was approved in the all of the DR Programs before staff's new approach.

As indicated, the only addition to the rule is to confirm that the transition from the CBDR to DRA was not meant to disqualify demand response metering configurations previously approved under the DR2, DR3 or CBDR programs. Given that there was never any suggestion in the stakeholdering process, the technical panel process, or the physical registration process for the DRA that these metering configurations would be disqualified, Resolute is frankly surprised by the extent of resistance to this proposal that staff expressed in the market rule amendment process. Again, this creates investor uncertainty and risk when it comes making an investment on the basis of market rules (as opposed to contracts). Investing on the basis of market rules requires trusting the integrity of market rules and the market rule amendment process; this trust is undermined if staff sees its role in the amendment process as furthering its positions, and not facilitating the Technical Panel's consideration of the issue. Staff's conduct in the amendment process mirrors its conduct in disallowing a previously qualified configuration.

One of the Technical Panel members "expressed concern about the IESO's handling of the process. He said it is evident that the IESO delayed in providing the Technical Panel information when the issue first emerged. Further, the IESO did not provide responses to Resolute in a timely manner in all circumstances. Finally, the IESO appeared to be reluctant at times to disclose information throughout the process to all parties."¹³

There are three areas of concern that Resolute has with the Technical Panel process in this case. These areas all demonstrate the challenges with staff's approach and the need for the IESO Board to protect the integrity of the rule amendment process by passing the Proposed Amendment.

¹² Resolute also filed a challenge to staff's interpretation under the dispute resolution process. That dispute remains live, although the IESO has not substantively responded to Resolute's email requests since December, 2018. The dispute resolution process and the market rule amendment process are not mutually exclusive. Further, ss. 35(4) of the *Electricity Act, 1998* provides that it is necessary for an applicant to make "use of the provisions of the market rules relating to the review of the market rules" prior to bringing a review of the market rules to the Ontario Energy Board. As a result, using the rule amendment process is not only permissible under these circumstances, it is mandatory.

¹³ Technical Panel Vote and Rationale on MR-00437 (Resolute), May 2, 2019 (Ron Collins).

First, IESO staff withheld the Proposed Amendment from the Technical Panel until November 28, 2018. At that time, without advising the Technical Panel of its options under the market rules to consider the submission, IESO staff advised that it had sent the proposed amendment to the Demand Response Working Group (“DRWG”) for its consideration.

In response to concerns raised by Resolute that the proposal was being managed through the DRWG by IESO staff, and not the Technical Panel, IESO staff advised Resolute that “The IESO has not received any objection to date from any Panel members on the proposed approach.” When the Proposed Amendment finally made it to the Technical Panel in January, 2019, Technical Panel members discussed staff’s approach and took issue with the statement that the Technical Panel had not raised an objection. One member stated that “Had Panel members known of McCarthy’s [i.e., Resolute’s] concerns, TP members may have had an issue had they known all the facts.”¹⁴

Second, instead of providing the materials to the Technical Panel in a neutral way, IESO staff’s practice when forwarding materials to the Technical Panel was to editorialize and criticize Resolute’s position. Staff therefore demonstrated that it is not prepared to facilitate an amendment with which it disagrees. Again, this is not an effective way to operate a market where market rule amendments may be contentious.

For example, when finally providing the proposed market rule to the technical panel, staff stated in a cover note that “The amendment submission represents the views of Resolute and in no way reflects the views of the IESO, nor does the submission reflect the IESO’s agreement with any representations made within the submission.”¹⁵

Similarly, at the request of the Technical Panel, Resolute sought to meet with staff to consider alternative approaches to framing the rule amendment. When staff would not make itself available, Resolute forwarded the email correspondence, through staff, to the Technical Panel to demonstrate that it had tried to find a solution. Staff forwarded the correspondence with an introduction that stated that staff “does not agree with Resolute’s characterization of staff’s conduct nor some of the correspondence referred to therein.”¹⁶ However, staff did not identify a single statement that it believed to be incorrect.

By way of analogy, Ontario Energy Board (“OEB”) staff makes submissions in disagreement with other parties, but it would be surprising to see correspondence with the Board where OEB staff makes vague and unsubstantiated allegations against a party’s submissions.

Finally, staff treated its role with the Technical Panel as a means to advance its position, not to provide the Technical Panel with neutral technical advice. First, as indicated, staff kept the original proposed Amendment from the Technical Panel and did not advise the Technical Panel of its options on how to proceed with the Proposed Amendment under the Market Rules. Rather, staff tried to divert the proposal to a staff-run working group.

More egregiously, when asked by a Technical Panel member whether it can communicate with Resolute off-line, staff’s response suggested that this was somehow inappropriate: “The IESO

¹⁴ Minutes of Technical Panel Meeting, January 29, 2019.

¹⁵ Memorandum from Josh Duru to the Technical Panel, November 28, 2018 Re: MR-00437: Demand Response – Registration and Metering Requirements.

¹⁶ Email from Jason Grbavac to Technical Panel, April 2, 2019.

does not take a position on the appropriateness of panel members privately discussing the amendment submission with Resolute. However, in the further interest of transparency, the IESO will not be contacting panel members individually on this matter.”¹⁷

Staff is aware that there is no rule or practice against these kind of discussions. Further, many IESO staff members worked very closely with its Technical Panel member to orchestrate its opposition to the Proposed Amendment.¹⁸ The suggestion that off-line conversations are inappropriate is nothing less than deliberately misleading the Technical Panel on how to carry out its decision-making responsibilities. Resolute reminded staff and the Technical Panel that these communications were consistent with the market rules and past practice and asked staff to advise if it was “aware of any rule that does not permit this.” Staff did not respond.

Conclusion

Resolute thanks the Board for the opportunity to provide written submissions and reiterates its offer to attend at the June 12 Board meeting in person to answer any questions that the Board may have.

Sincerely,



George Vegh

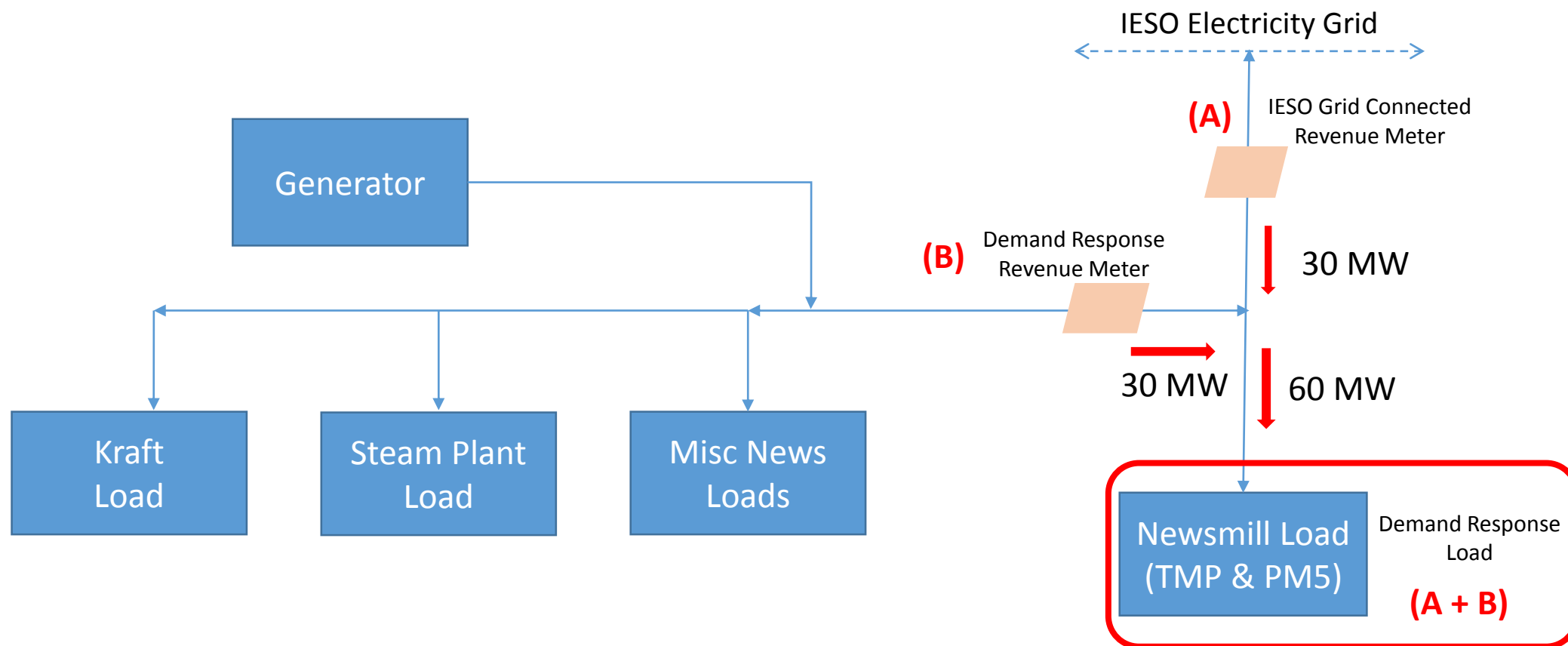
¹⁷ Email from Robert Doyle to Technical Panel, April 18, 2019.

¹⁸ Given Resolute’s concerns with IESO staff’s handling of the market rule amendment process, Resolute filed a request under the *Freedom of Information and Protection of Privacy Act* (“FIPPA”) regarding its proposed market rule amendment. It is evident that the Technical Panel member representing the IESO attended at least 7 meetings with staff regarding Resolute’s amendment. The title of some of these meetings indicate a need to develop a “strategy” in regards to Resolute’s proposed amendment: for example, meetings which took place on October 19, 2018 and 23, 2018 entitled “TP Strategy Discussion re: Resolute MR Amendment Submission” at which both IESO Technical Panel member Jessica Savage and IESO Technical Panel Chair Michael Lyle are listed as meeting attendees. Another example is a December 7, 2018 meeting at which both IESO Technical Panel member Jessica Savage and IESO Technical Panel Chair Michael Lyle are listed as attendees where the meeting objective is to “continue the discussion on how we manage the Resolute MR Submission”. The FIPPA response materials are clearly incomplete. By the IESO’s count, it has withheld 215 documents in their entirety. Resolute has filed an appeal as the responding materials do not meet the requirements of the FIPPA.

SCHEDULE A

SIMPLIFIED OVERVIEW OF RESOLUTE ELECTRICAL DISTRIBUTION

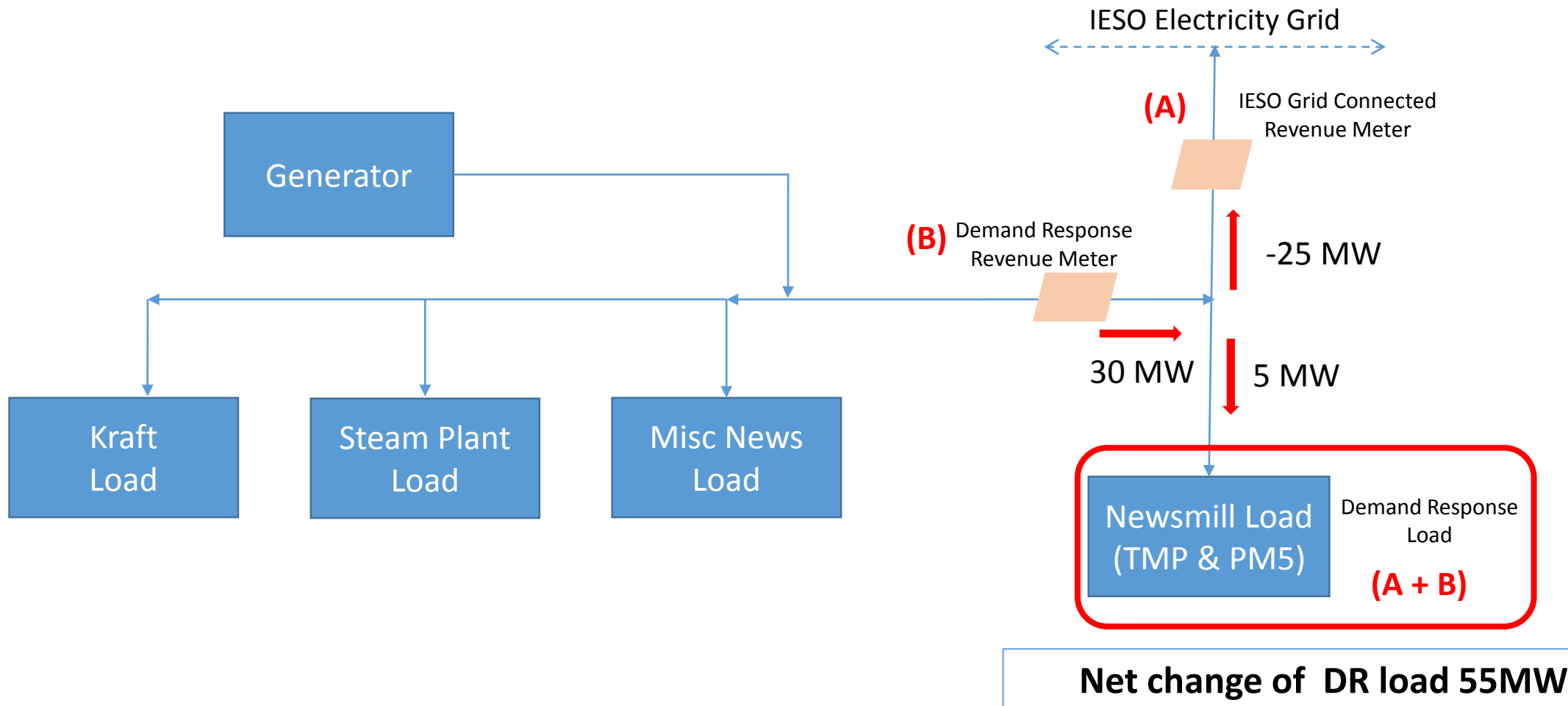
Normal Operation



Demand Response (DR) Baseline load: 60 MW

SIMPLIFIED OVERVIEW OF RESOLUTE ELECTRICAL DISTRIBUTION

After DR Activation: Actual



SCHEDULE B

CBDR / DRA eligibility requirements comparison chart

Capacity Based Demand Response Program (CBDR)	Demand Response Auction (DRA)
Eligibility requirements for the Capacity Based Demand Response Program as set out in IESO Market Rules Chapter 7, s. 17.2.1:	Eligibility requirements for Hourly Demand Response Resources with Demand Response Capacity Obligations as set out in IESO Market Rules Chapter 7, s. 19.2.1:
A <i>demand response market participant</i> is eligible to participate in the <i>capacity based demand response program</i> provided that the <i>demand response market participant</i>: 17.2.1.1: demonstrates to the satisfaction of the IESO that it can provide a minimum level of <i>demand</i> reduction, as specified in the applicable <i>market manual</i>; 17.2.1.2: operates, maintains, and has submitted to the IESO a measurement and verification plan, at the <i>demand response market participant's</i> own expense, in accordance with the applicable <i>market manual</i> and the IESO has approved the plan. The <i>demand response market participant</i> shall not modify, vary or amend in any material respect any of the features or specifications of any project without first requesting IESO authorization and approval in accordance with the applicable <i>market manual</i>; 17.2.1.3: registers its <i>facilities</i> or <i>demand response contributors</i> as applicable, to the satisfaction of the IESO, in accordance with the applicable <i>market manual</i>; 17.2.1.4: is either: (i) a <i>demand response direct participant</i> who owns each <i>demand response contributor</i> and who will be able to reduce the <i>demand</i> of an eligible project as outlined in the applicable <i>market manual</i>; or (ii) a <i>demand response aggregator</i> with enforceable rights over each <i>demand response contributor</i> that will enable the <i>demand response aggregator</i> to reduce the <i>demand</i> of an eligible project as outlined in the applicable <i>market manual</i>; and 17.2.1.5: has provided <i>demand response security</i> in accordance with section 5A of Chapter 2.	A <i>demand response market participant</i> is eligible to participate as an <i>hourly demand response</i> resource provided that the <i>demand response market participant</i>: 19.2.1.1: demonstrates to the satisfaction of the IESO that it can provide the <i>demand response capacity obligation</i>, as specified in the applicable <i>market manual</i>; 19.2.1.2: registers its <i>facilities</i> and <i>demand response contributors</i> as applicable, to the satisfaction of the IESO, in accordance with the applicable <i>market manual</i>. The <i>demand response market participant</i> shall not modify, vary or amend in any material respect any of the features or specifications of any resource without first requesting IESO authorization and approval in accordance with the applicable <i>market manual</i>; [Note: definition of <i>demand response contributor</i> (see next page) is similar but not identical] 19.2.1.3: satisfies the <i>connection assessment</i> requirements in accordance with section 6 of Chapter 4, if required by the IESO, in accordance with the applicable <i>market manual</i>; 19.2.1.4: has provided <i>prudential support</i> in accordance with section 5 of Chapter 2.

Terms in italics above are defined terms in the IESO Market Rules Ch. 11. Key defined terms are included on next page.

DRA and CBDR eligibility requirement rules – key defined terms

- *capacity based demand response program* means the temporary program used by the IESO to transition the former OPA's contract based DR3 program into the IESO-administered market
- *commitment period* means the length of time for which a *demand response market participant* is required to fulfill its *demand response capacity obligation* by making its *demand response capacity* available for *dispatch* through the day-ahead commitment process and *energy market*
- *demand* means the rate at which electric *energy* is delivered to or by a system or part of a system, generally expressed in kilowatts or megawatts, at a given instant or averaged over any designated interval of time
- *demand response aggregator* means a person that is not a *demand response direct participant* and aggregates at least one *demand response contributor* to provide a portion of the aggregator's monthly contracted MW for the contracted *dispatch* period as outlined in the aggregator's *demand response schedule*
- *demand response auction* means the auction operated by the IESO to procure *demand response capacity*, in accordance with section 18 of Chapter 7
- *demand response capacity* means the expected quantity of load reduction a *demand* resource can provide during a specified availability window and *commitment period* for a *demand response auction*, and excludes *energy* transacted through the *energy market*
- *demand response capacity obligation* means the amount of *demand response capacity* that a *demand response market participant* is obligated to provide during the applicable availability window and *commitment period*, following a *demand response auction*
- *demand response contributor* means an interruptible load or behind the *meter generator* that is owned by a *demand response direct participant*, or with whom a *demand response aggregator* has enforceable rights, and in either case, who will provide a portion of the monthly contracted MW for the contracted *dispatch* period as outlined in the *demand response schedule*. A *demand response contributor* also means the delivery of a *demand response capacity obligation* with an *hourly demand response resource*, in which case a monthly contracted MW is replaced by a *demand response capacity obligation*
- *demand response direct participant* means a person who is not a *demand response aggregator* and whose *demand response contributors* are owned by the *demand response market participant* and the *facilities* in which the *demand response contributors* reside are controlled by the *demand response market participant*
- *demand response market participant* means a person who is a *market participant* that participates only in the *capacity based demand response program*, the *demand response pilot program*, or is a person with a *demand response capacity obligation*
- *energy* means, in respect of the *market rules* other than Chapter 5 or 6, real *energy* only and may, in respect of Chapter 5 or 6, mean both real *energy* and reactive *energy* if the context so requires
- *energy market* means the *real-time market* for *energy* administered by the IESO pursuant to Chapter 7 in which *energy offers* and *energy bids* are cleared and a *market price* for *energy* is determined
- *facility* means a *generation facility*, a *load facility*, a *transmission system*, a *distribution system*, located within the IESO control area, or any other equipment that is a component or part of the *electricity system*
- *hourly demand response* means the resource type described in section 19 of Chapter 7, that is used by the IESO as a delivery type, on an hourly basis, for a *demand response capacity obligation*

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Reasons of the *IESO Board* in respect of an *amendment to the market rules*

Terms and acronyms used herein that are italicized have the meanings ascribed thereto in Chapter 11 of the *market rules*.

The following sets out the *IESO Board's* reasons for its decision on the proposed *amendment* to the *market rules* identified in Part 1 below (the “**Amendment**”).

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR- 00437-R00
Title:	Resolute FP Canada – Demand Response Registration and Metering Requirements

The *IESO Board* convened to consider the Amendment on the date and location set out in Part 2 below.

PART 2 – BOARD MEETING INFORMATION

Date:	June 12, 2019
Location:	120 Adelaide Street, West, Toronto

Prior to considering the Amendment, the Chair of the *IESO Board* enquired whether any director of the *IESO Board* had a conflict of interest to declare, the result of which is set out in Part 3 below.

PART 3 – CONFLICTS OF INTEREST

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| <p>☒ No conflict was declared.</p> <p>☐ Any director declaring a conflict of interest abstained from voting on the adoption of the Amendment.</p> |
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The *IESO Board* was presented with the materials in respect of the Amendment identified in Part 4 below (the “**Materials**”), all of which is *published* on the *IESO*’s [website](#) subject to such redactions as *IESO* staff determined reasonably necessary.

PART 4 – MATERIALS

1. Agenda Item Summary
2. Memorandum from Technical Panel Chair to IESO Board, dated June 4, 2019
3. Resolute Market Rule Amendment Proposal, dated April 16, 2019
4. Background Information, dated May 27, 2019
5. Resolute Presentation to Technical Panel, dated February 12, 2019
6. IESO Cover Memo to Technical Panel, dated April 30, 2019
7. Technical Panel member vote and rationale, dated May 2, 2019
8. Summary of Stakeholder and Technical Panel member comments on price, reliability and quality of service
9. Resolute letter to the IESO Board Secretary, dated May 27, 2019
10. IESO Board Secretary responding letter to Resolute, dated June 4, 2019
11. Resolute letter to IESO Board Secretary, dated June 5, 2019
12. IESO Board Secretary responding letter to Resolute, dated June 6, 2019
13. Resolute Submission to the IESO Board, dated June 10, 2019

Having considered the Amendment and the Materials, the *IESO Board* decided as identified in Part 5 for the reasons set out in Part 6.

PART 5 – DECISION

- ☐ The *IESO Board* decided in favour of the adoption of the Amendment.
- ☐ The *IESO Board* referred the Amendment back to the *technical panel* for further consideration and vote.
- ☒ The *IESO Board* decided against the adoption of the Amendment.

PART 6 – REASONS

The *IESO Board* reviewed the materials including the *technical panel* vote of 8 – 4 against recommending to the *IESO Board* the adoption of MR-00437-R00. Following discussion at the June 12, 2019 *IESO Board* meeting the *IESO Board* decided against the adoption of the Amendment for the following reasons:

1. The *market participant* indicated the proposed Amendment is necessary to ensure the original intent of the *market rules* with respect to the determination of *demand response capacity* (Chapter 7, 2. 19.2.1.1) is preserved. This matter is also the subject of a dispute between the *market participant* and the IESO. The dispute resolution process is the appropriate place for this matter to be determined as it is a fair, efficient, and well established process to resolve these types of dispute. The *market rule amendment* process is not the appropriate venue to resolve an issue that is the subject of an ongoing dispute.
2. The *technical panel* considered the proposed Amendment and did not recommend that it be adopted.
3. There will be opportunities to address transition issues relating to demand response during the development of *market rules* relating to Transitional Capacity Auction and Incremental Capacity Auction. These are the appropriate fora to discuss and resolve issues affecting demand response within the context of the auction process overall.

The *IESO Board* notes that the *market participant* raised some valid concerns regarding the *technical panel* process. These concerns do not impact the *IESO Board's* decision regarding the substance of the proposed Amendment. Despite the process concerns identified by the *market participant*, the *market participant* was able to present its views and rationale for the proposed Amendment to the *technical panel*. The *technical panel* considered the issues thoroughly and the *market participant* had full ability to make its views known and respond to all questions raised.

The *IESO Board* has directed IESO staff to prepare a report which addresses what was learned from the *technical panel* process and to identify process changes that will be made going forward. Preparation of the report is to include input from the *market participant* and the *technical panel*. This report will be made public.

The *IESO Board* would like to acknowledge the *technical panel* for its thoughtful consideration of the proposed Amendment. It was a significant undertaking, involving a variety of complex substantive and process issues. The *technical panel* demonstrated diligence and focus.