

OEB STAFF INTERROGATORY 28

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INTERROGATORY

Ref: C-2-2, p.1

The IESO's updated evidence that was filed with the OEB on August 26, 2019 indicates the IESO's public announcement identifying that proceeding with detailed design work on the ICA could no longer be justified was made on the morning of July 16, 2019 during a Market Renewal Program (MRP) update meeting.

(a) Please indicate whether the Minister provided any formal approval or response regarding the change in the IESO's activities and spending as reflected in the evidence update.

RESPONSE

(a) The decision to discontinue work on the ICA HLD was the IESO's decision. The IESO informed the Minister of Energy, Northern Development and Mines (Ministry) on July 4, 2019, in advance of the IESO's announcement on July 16, 2019.

The Ministry has not approved any changes to the IESO's spending following the IESO's decision. The IESO 2020-2022 Business Plan reflecting the changes to the IESO's activities has been submitted to the Minister for review and approval.

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INTERROGATORY

Ref: Updated Evidence, Exhibit C

The IESO's updated evidence does not clearly articulate whether the IESO considers the revised approach to the ICA to continue to be part of the MRP. The initial application that was filed on January 28, 2019 provided a breakdown of all costs based on two buckets: (1) MRP and (2) Core Operations.

(a) Please clarify if the revised approach to the ICA remains part of the MRP.

(b) If the revised approach was removed from the MRP and therefore now falls under the IESO's Core Operations, please discuss the impacts of the change on the 2019 Core Operations operating and capital budgets.

RESPONSE

(a) The Capacity work stream remains a part of the MRP. The following work makes up the Capacity work stream:

- Final stakeholder clarification of feedback from the ICA HLD;
- Stakeholdering of the complementary capacity mechanisms to ensure adequate supply in Ontario in the future;
- Continued effort to finalize a number of foundational capacity related features that would be common to any mechanism including qualification, obligations, and improved planning requirements; and
- Development of any future Capacity Auction enhancements beyond the current approved project (i.e., after the completion of the formal TCA¹ Project) including a cost/benefit assessment approved by the IESO Board.

¹ Since the July announcement to stop work on the High Level Design for the Incremental Capacity Auction, the IESO is now referring to the Transitional Capacity Auction as the Capacity Auction. The Capacity Auction is an evolution of the IESO's former Demand Response Auction.

- 1 (b) The Capacity work stream remains a part of MRP. The operating budget for core
- 2 operations and MRP are both funded from the IESO fee. Moving the Capacity work
- 3 stream from MRP to core operations would have no impact to the IESO's revenue
- 4 requirement.

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INTERROGATORY

Ref: OEB Staff interrogatory #25

Ref: The Brattle Group Report (prepared for the IESO)

Ref: IESO Business Case presentation, May 16, 2019

Ref: IESO Business Case presentation, July 17, 2019

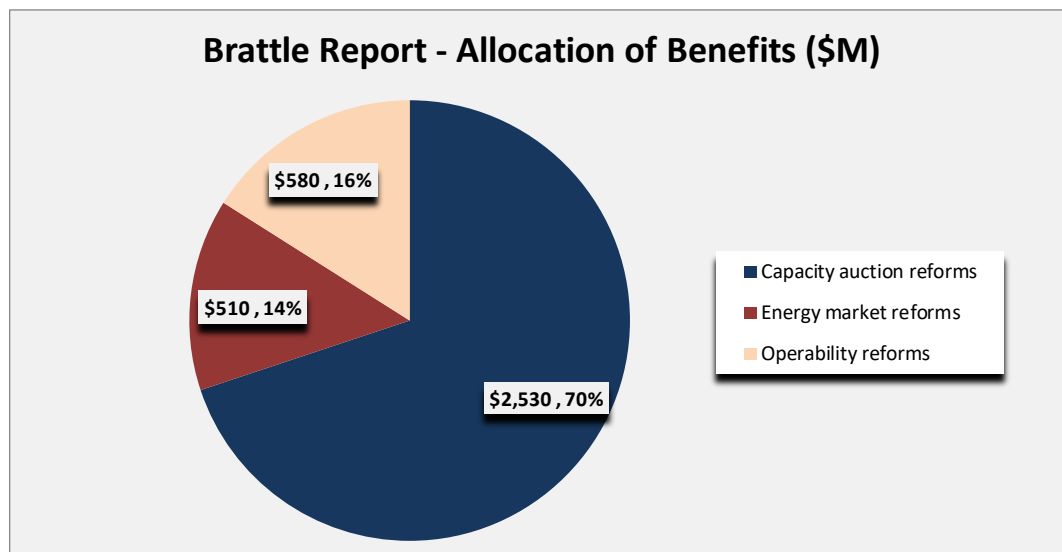
Ref: IESO Detailed Design Engagement Plan, August 22, 2019

Ref: IESO Energy - Detailed Design Engagement Plan

Ref: Market Surveillance Panel (MSP) Feedback – IESO Alternative Load Pricing Design, July 2, 2019

Ref: IESO Updated Evidence (C-2-1, p.11, C-2-2, p.3)

In OEB staff interrogatory #25, staff asked the IESO to explain why the IESO considers it reasonable to hire and spend on the MRP prior to the finalization of the MRP's business case. The IESO response noted *"the IESO hired a third party to assess whether a comprehensive [MRP] would yield benefits to the sector when compared to the expected costs. As such, the 2017 Benefits Case concluded that the MRP is expected to deliver \$3.4B in net benefits over a 10-year period based on costs of approximately \$200M. The significant difference between the benefits and cost of the project provided the IESO with confidence that ongoing expenditure was warranted to develop the high level designs necessary to advance the project."* OEB staff notes that third party was The Brattle Group and the breakdown of benefits identified in the [Brattle Report](#) is set out in the chart below.



1 After that IESO response was provided, the IESO identified in developing the current Business
2 Case that, without the ICA, the benefits are now limited to Energy Market reforms which
3 account for 14% (i.e., red slice in chart) of Brattle's original forecast. In addition, among the
4 Energy Market reforms, the IESO also announced that LMP will no longer apply to non-
5 dispatchable loads¹ which, according to the [MSP](#), will result in "*leaving only few percent of all load*
6 *exposed to locational prices*" in Ontario.²

7 The IESO interrogatory response discussed above claimed High Level Design work was
8 warranted based on the Brattle Report. However, the IESO has proceeded with spending on
9 Detailed Design work. According to the IESO's updated evidence, that includes work on the
10 ICA which will no longer be implemented and the IESO is therefore applying to expense the
11 money spent.

12 In developing the current Business Case, the IESO also stated the following in its [May 16, 2019](#)
13 [presentation](#) to stakeholders "*An approved Business Case is a pre-requisite to supporting the project*
14 *for the Detailed Design and Implementation phases*". According to the IESO's updated evidence, the
15 current target date for an approved Business Case is not until Q4-2019. However, in the
16 absence of a Business Case, the IESO formally announced on August 22, 2019 that all future
17 spending would focus on the [Detailed Design phase](#)³, as all HLD work had been completed.

- 18 (a) Given the expected benefits for the MRP are now 14% of Brattle's estimate, and the
19 IESO's view that an approved Business Case is a pre-requisite to carrying out Detailed
20 Design work, please explain why the IESO believes it is prudent to continue to spend on
21 Detailed Design work on the Energy stream before the Business Case is finalized?
- 22 (b) Please explain the IESO's rationale for deciding to proceed with spending on Detailed
23 Design work related to the ICA in advance of completing a Business Case and shortly
24 before the IESO's Resource Adequacy Outlook was to be updated (which determined it
25 was not needed)?
- 26 (c) The IESO identified in its July 17, 2019 [MRP Business Case presentation](#) that the current
27 Business Case will focus on only the Energy stream. As such, since the IESO plans to do
28 further work on the Capacity work stream, please quantify the total costs and benefits
29 associated with that stream as well.

¹ [Market Renewal Program Update Meeting – June 18, 2019](#)

² <http://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/mrpum/mrpum-20190702-market-surveillance-panel.pdf?la=en>

³ <http://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/mrp-edd/energy-detailed-design-engagement-plan.pdf?la=en>

1 **RESPONSE**

2 (a) The IESO received approval from its Board of Directors in August 2018 to proceed to the
3 detailed design phase of the MRP in 2019, including approval of the MRP budget for
4 2019, which was incorporated into the IESO Business Plan and subsequent revenue
5 requirement submission. Given the substantial benefits of the Energy work stream
6 estimated in the Benefits Case, it was prudent to begin design work in advance of
7 completing the MRP Business Case.

8 (b) Given the need identified from previous long-term outlooks and the results from the
9 Benefits Case, it was prudent to continue work on the ICA HLD and begin design work
10 in advance of completing the Business Case. The IESO moved forward in good faith that
11 a Business Case would be approved and support the completion of the ICA. Please also
12 see the response to OEB Staff Interrogatory 40 c) at Exhibit I, Tab 6.0, Schedule 1.40.

13 (c) The IESO plans to commence a review of complementary resource acquisition
14 mechanisms starting in 2019. This work will inform the IESO as to what, if any,
15 enduring additional or enhanced features are required in a future capacity mechanism,
16 enabling more competition for capacity from a larger set of resources. This review will
17 provide value regardless of the path chosen, as the same issues must be addressed
18 whether capacity is procured through auctions, RFP's, contracts or other mechanisms.
19 The IESO will then develop a benefit and costing assessment before completing any
20 additional Capacity Auction design work beyond what has been already approved by
21 the IESO Board.

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INTERROGATORY

Ref: C-2-2, p.1

Ref: C-2-2, p.3

Ref: A-2-3, p.1

The application states that the IESO's MRP will "deliver ratepayer value". The Minister's December 2018 letter approving the IESO's Business Plan notes "I hope the IESO will continue to focus on ... ensuring maximum value for ratepayers". The updated evidence states that the IESO has concluded from its most recent Resource Adequacy Outlook that the ICA is no longer required, for at least a decade. However, the application identifies that the IESO plans to incur additional costs to do further work on the capacity work stream and the IESO is therefore requesting those costs be included in its revenue requirement.

(a) Please explain how further spending on the design of a capacity market that may never be implemented in Ontario will result in "ratepayer value" being realized.

(b) Please explain why the forecast O&M spend on the capacity work stream has increased by \$1.5M to \$2.6M for the period of July 2019 to December 2019 (i.e., the period after the ICA was determined not to be required) relative to the budgeted amount (which was established based on the IESO's expectation that the ICA would be implemented in the near term).

RESPONSE

(a) Important foundational work is essential to making informed decisions on capacity procurement. The IESO remains committed to providing open, transparent and competitive mechanisms for acquiring capacity and allowing a variety of resource types to compete to provide the required capacity at least cost. Regardless of the procurement mechanism, there are a number of foundational capacity-related topics that require development. The continuing work will bring value regardless of the final solution selected as the same issues must be addressed whether capacity is procured through auctions, RFP's, contracts or other mechanisms.

(b) The budgeted costs from July 2019 to December 2019 included costs that supported the detailed design phase of ICA which are classified as capital costs. With detailed design no longer proceeding, costs incurred are no longer treated as capital and remaining team resources are now expensing their time as operating expenses. With costs that were budgeted as capital now treated as operating expenses the resulting expense forecast increased by \$1.5 million against budget. This increase is more than offset by a \$12 million decrease in planned capital spending.

(\$ millions)	July 2019 – December 2019		
	Rest of Year		
	Forecast	Budget	Variance
Compensation & Benefits	2.0	0.6	1.4
Professional & Consulting	0.4	0.4	-
Operating & Admin	0.2	0.1	0.1
Total Operating Expense	2.6	1.1	1.5

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INTERROGATORY

Ref: Updated Evidence (C-2-1, p.11)

Ref: Initial Application (C-2-1, p.11)

The IESO's total program budget estimate of \$247 million for the MRP remains unchanged from the original application.

(a) Given the reductions in the scope of the MRP project, please provide a refined estimate of the total project budget or explain why the total budget remains unchanged. If a refined estimate of total project costs is available, please update Table 9 below, extracted from Exhibit C, Tab 2, Schedule 1 of the IESO's updated application filed August 26, 2019.

(b) Given the elimination of detailed design work related to the ICA and the lack of shading after 2019 in the second last row of the table (MRP – Capital), please explain why the IESO's capital spending would be expected to be the same in 2020 and beyond.

Table 9: 2019 MRP Annual and Projected Final Project Costs

Work Stream	Cost Category	2017 Actual	2018 Estimate	2019 Business Plan	2020 Business Plan	2021 Business Plan	2022 Budget*	2023 Budget*	2024 Budget*	Total Program
Energy	Operating	3.2	4.8	2.4	5.4	2.1				
Energy	Capital	-	0.6	26.7	28.1	25.7				
Energy	Total	3.2	5.4	29.1	33.5	27.8	-	-	-	
Capacity	Operating	1.6	5.2	4.7	1.5	2.2				
Capacity	Capital	-	-	11.3	15.2	15.1				
Capacity	Total	1.6	5.2	16.0	16.7	17.3	-	-	-	
General	Operating	3.1	4.9	4.6	5.3	5.3				
General	Capital	0.2	0.7	-	-	-				
General	Total	3.3	5.6	4.6	5.3	5.3	-	-	-	
MRP	Operating	7.9	14.9	11.7	12.2	9.6	8.0	7.0		
MRP	Capital	0.2	1.3	38.0	43.3	40.8	27.0	13.0		
MRP	Total	8.1	16.2	49.7	55.5	50.4	35.0	20.0	12.0	246.9

* Budget estimates are used for 2022 – 2024 and will be further refined after completion of the Business Case.

RESPONSE

Note: The items shaded in grey in the table above represent the areas that were changed with the filing of the updated evidence.

(a) Going forward, the MRP total budget will include the total cost to deliver the Energy work stream and continued efforts on the Capacity work stream. The total cost to deliver the Energy work stream will be available once the MRP Energy Business Case is approved at the end of 2019. A total estimate of the capacity costs under the MRP umbrella is still being developed.

(b) The shaded section of the “2019 MRP Annual and Projected Final Project Costs” is intended to represent the row of data that was changing as a result of the changes to the Capacity work stream. This will impact the MRP-Capital line after 2019, even though this was not shaded in the table. With the elimination of detailed design work for the Capacity Stream, the annual and projected final capital cost is zero.

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INTERROGATORY

Ref: C-2-S1, p.10

Table 7 ("2019 MRP Operating Budget by Work Stream") in the updated evidence indicates there is no change to the dollar amounts associated with the "General" work stream which represents support / shared resources (e.g., legal) associated with the Capital and Energy work streams.

(a) Please clarify how much of the \$4.6M that is allocated to the "General" work stream remains associated with the Capacity work stream under the revised approach to the ICA.

(b) If none of the \$4.6M is now allocated to the Capacity work stream, please explain why the same amount would be required to support only the Energy work stream which has an operating budget of \$2.3M (i.e., half the amount of "General").

RESPONSE

(a) The \$4.6 million in the General work stream is required to support both the Energy and Capacity work streams throughout 2019. The MRP General work stream covers areas such as program management, control, and governance; work to enable participation in future markets (NERSC); and other shared supports such as recruiting. For January – June 2019, the actual spending under "General" has been apportioned 50% - 50% between Energy and Capacity work streams, reflecting the work that occurred during that timeframe. Following the announced changes regarding the Capacity work stream, resource effort budgeted under "General" has been re-directed to primarily support the Energy work stream, while still maintaining minimum levels of program management, control, and governance activities to support the revised approach on the Capacity work stream for the remainder of 2019.

(b) See above.

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INTERROGATORY

Ref. B-2-1, p.2

At Exhibit B-2-1. Pg. 2, the IESO states that it is seeking approval of its proposed 2019 capital expenditures envelope of \$43.3 million. At the same location, the IESO also provides the following table demonstrating forecast and actual capital expenditures over the past three year period.

Capital (\$ millions)	2017 Envelope	2017 Actuals	2018 Envelope	2018 Estimate*	2019 Envelope
Core Operations	25.0	15.4	22.6	14.4	17.3
Market Renewal Program	--	0.2	4.0	1.2	26.0
Total	25.0	15.6	26.6	15.6	43.3

*Finalized 2018 data will be available when the IESO's 2018 Audited Financial Statements are completed.

- (a) In the original application, the IESO indicated a 2019 MRP capital budget of \$38.0 million; \$12 million higher than indicated in the updated evidence. Please provide a breakdown of each capital expenditure totaling to the \$38.0 million. Further, please indicate the capital expenditures being cancelled that total \$12 million.
- (b) Please indicate how much of the total \$26.0 million MRP capital budget has been committed/spent to-date.
- Please provide a description of all committed projects, the work stream (e.g., capacity or energy) they relate to, as well as the type of commitment (e.g., executed contract).
 - Please provide a description of all capital expenditures incurred to-date, the date they were incurred, as well as the work stream (e.g., capacity or energy) they relate to.
- (c) Is there any non-essential spending on MRP activities that can be deferred until such time that the IESO's Board of Directors approves the Business Case?

(d) If available, please update the column entitled "2018 Estimate*" in the table above to reflect "2018 Actuals".

(e) At Exhibit C-2-2. Pg. 2, the IESO states, "[a]pproximately \$0.5 million of the Capacity work stream capital costs spent prior to the revised approach and incurred in the first half of 2019 will be expensed as operating costs." Based on the evidence provided, it appears that the IESO had forecast spending \$12 million in Capacity work stream related capital costs in 2019. Of the \$12 million, the IESO had spent \$0.5 million, or 4% of forecast, in the first six months of the year.

i. Given the underspend seen to-date, please provide a basis upon which stakeholders can be confident that the IESO's proposal to spend \$26.0 million on capital items during the remainder of 2019 is reasonable.

RESPONSE

(a) The original application had a requested MRP capital budget of \$38.0 million, \$26.0 million for the Energy work stream and \$12.0 million for the Capacity work stream. With the cancellation of the Capacity capital work, the \$12.0 million originally budgeted for the Capacity work stream has been removed.

Work Stream	Cost Category	2019 Full Year Forecast	2019 Full Year Budget
Energy	Compensation & Benefits	10.0	10.0
	Professional & Consulting	3.8	3.8
	Operating & Admin	12.2	12.2
	Energy Total	26.0	26.0
Capacity	Compensation & Benefits	-	7.0
	Professional & Consulting	-	3.3
	Operating & Admin	-	1.7
	Capacity Total	-	12.0
Program	Compensation & Benefits	10.0	17.0
	Professional & Consulting	3.8	7.1
	Operating & Admin	12.2	13.9
	Program Total	26.0	38.0

(b) Of the \$26.0 million proposed MRP capital budget in the updated evidence, \$4.2 million has been spent as of June 2019. Details are provided below:

Work Stream	Cost Category (\$ millions)	2019 Jun YTD Actuals	2019 Full Year Budget
Energy	Compensation & Benefits	2.8	10.0
	Professional & Consulting	1.2	3.8
	Operating & Admin	0.2	12.2
	Energy Total	4.2	26.0

- i. The committed project for the energy work stream is the development of a detailed design. This work is being performed by internal resources, supported by professional and consulting services through executed contracts, performed on a time and material basis.
- ii. The following table provides a description of all capital expenditures incurred to date, the date they were incurred, as well as the work stream (e.g., Capacity or Energy) they relate to.

Work Stream	Cost Category	2019 Jun YTD Actuals (\$ millions)	Description of Work
Energy	Compensation & Benefits	2.8	Staff costs
	Professional & Consulting	1.2	External costs related to the development of detailed design
	Operating & Admin	0.2	Rent
	Energy Total	4.2	
Capacity	Compensation & Benefits	1.2	Staff costs
	Professional & Consulting	0.3	External costs related to the development of detailed design
	Operating & Admin	0.1	Rent
	Capacity Total	1.6	

- (c) There is no non-essential spending on MRP activities.

(d) The table below is updated to include 2018 actuals:

Capital (\$ millions)	2017 Envelope	2017 Actuals	2018 Envelope	2018 Estimate	2018 Actuals	2019 Envelope
Core Operations	25.0	15.4	22.6	14.4	14.4	17.3
Market Renewal Program		0.2	4.0	1.2	1.4	26.0
Total	25.0	15.6	26.6	15.6	15.8	43.3

(e) As of June 2019, \$4.2 million of the \$26.0 million budget for the Energy work stream has been spent. A majority of the \$26.0 million budget is expected to be spent in the second half of 2019. A couple of notes follow on the current spend rate:

- The Energy work stream is still adding resources to the program, which will result in higher compensation expenses through the remainder of the year;
- The detailed design consultant costs started in April, which will result in a higher expense in the second half of the year as they work through the remainder of the year; and
- Approximately 50% of the budget will be spent on the Dispatch Scheduling and Optimization (DSO) procurement once the MRP Energy Business Case has been approved in October.

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INTERROGATORY

Ref: C-2-2, p.4

Many of the tables in the updated evidence have not been revised to reflect the cancellation of further design work on the ICA (i.e., revised approach). The figures from the initial application -- when an ICA was assumed to be required -- have simply been shaded, rather than updated. OEB staff finds that the way in which the evidence has been revised (i.e., tables not updated) can therefore result in confusion as certain totals do not appear to fully reflect the revised approach. For example, a number of tables (e.g., Table 6, Table 9, etc.) still show \$38M in capital costs associated with the Capacity work stream, as opposed to the revised amount of \$26M.

Staff is therefore uncertain what the IESO is applying for in relation to the MRP.

(a) To the extent reasonable, please update the tables in the application that have been impacted by the revised approach to the Capacity work stream.

RESPONSE

The IESO has presented the current forecast for MRP costs in its August 26, 2019 updated evidence. The tables below show both the updated forecast and the budget that was submitted in the original proposal.

Table 6: 2019 MRP Operating & Capital Budget

Work Stream	Cost Category	2019 Full Year Forecast	2019 Full Year Budget
Operating	Compensation & Benefits	5.8	5.7
	Professional & Consulting	4.6	4.8
	Operating & Admin	1.3	1.2
	Energy Total	11.7	11.7
Capital	Compensation & Benefits	10.0	17.1
	Professional & Consulting	3.8	7.1
	Operating & Admin	12.2	13.8
	Capacity Total	26.0	38.0
Program	Compensation & Benefits	15.8	22.8

Work Stream	Cost Category	2019 Full Year Forecast	2019 Full Year Budget
	Professional & Consulting	8.4	11.9
	Operating & Admin	13.5	15.0
	General Total	37.7	49.7

1

2 Table 7: 2019 MRP Operating Budget by Work Stream

Work Stream	Cost Category	2019 Full Year Forecast	2019 Full Year Budget
Energy	Compensation & Benefits	0.9	0.9
	Professional & Consulting	1.3	1.3
	Operating & Admin	0.1	0.1
	Energy Total	2.3	2.3
Capacity	Compensation & Benefits	3.6	3.5
	Professional & Consulting	0.9	1.1
	Operating & Admin	0.3	0.2
	Capacity Total	4.8	4.8
General	Compensation & Benefits	1.3	1.3
	Professional & Consulting	2.4	2.4
	Operating & Admin	0.9	0.9
	General Total	4.6	4.6
Program	Compensation & Benefits	5.8	5.7
	Professional & Consulting	4.6	4.8
	Operating & Admin	1.3	1.2
	Program Total	11.7	11.7

3

1 **Table 8: 2019 MRP Capital Budget by Work Stream**

Work Stream	Cost Category	2019 Full Year Forecast	2019 Full Year Budget
Energy	Compensation & Benefits	10.0	10.0
	Professional & Consulting	3.8	3.8
	Operating & Admin	12.2	12.2
	Energy Total	26.0	26.0
Capacity	Compensation & Benefits	-	7.0
	Professional & Consulting	-	3.3
	Operating & Admin	-	1.7
	Capacity Total	-	12.0
Program	Compensation & Benefits	10.0	17.0
	Professional & Consulting	3.8	7.1
	Operating & Admin	12.2	13.9
	Program Total	26.0	38.0

2 **Table 9: 2019 MRP Annual and Projected Final Project Costs**

3 Updated annual and projected final costs for the Energy work stream will be available once the
4 business case is approved. The Capacity work stream's total cost will be dependent on the
5 stakeholdering work going forward.

6 **Table 11: 2019 MRP Incremental Staffing by Work Stream**

Work Stream	Regular	Temporary	Total
Energy	41	14	55
Capacity	18	9	27
General	11	4	15
Total	70	27	97

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INTERROGATORY

Ref: B-2-1, p.2

At Exhibit B-2-1. Pg. 2, the IESO states that:

“Given the scope and complexity of the IESO’s mandate, the IESO recognizes the potential for additional unplanned work activities that are beyond the control of management. The IESO is seeking approval to increase the operating reserve back to its approved 2016 operating reserve level of \$10 million as set out further in Exhibit B-1-1.”

(a) Please describe how the reduced scale of the MRP project affects the level of uncertainty around possible unplanned work activities, as well as the amount of money that would need to be retained in a reserve account to fund them.

(b) Please identify all unplanned work activities that were beyond the control of management undertaken by the IESO thus far in 2019.

i. If applicable, please identify on behalf of whom these unplanned work activities were undertaken.

ii. If applicable, please indicate the dollars spent on unplanned work activities thus far in 2019.

RESPONSE

(a) The reduced scale of the MRP project primarily reduced capital spending and does not impact uncertainties in operating expenses nor related to operating reserve.

(b) i. and ii. The IESO operates in a complex environment and management considers best available information and planning assumptions when developing its annual operating budgets. From time to time, material changes in priorities or initiatives are identified after IESO’s budget has been approved by its board and the Minister. IESO addresses material changes to its budget through quarterly forecasts that identify unplanned risks and opportunities related to its approved (or proposed) funding. In 2019, an example of an initiative or impact not included in the 2019 budget include the impact of 2018 accounting policy change with respect to the discount rate used to value the IESO’s

1 supplemental employee retirement and other post-employment benefit plans. Actuarial
2 assumptions put this cost at an additional \$3.1 million (\$1.6 million June YTD) which
3 resulted in an increase to the IESO's 2019 operating expenses, however this unplanned
4 expense was able to be offset by other savings due to hiring lags and other factors. In the
5 event that offsets are not available, unplanned operating expenses would draw on the
6 IESO's operating reserve in the year incurred, for future recovery as a rate smoothing
7 mechanism.

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INTERROGATORY

At Exhibit C-2-2. Pg. 1, the IESO states that:

“On July 16, 2019, the IESO announced that it would cease to move forward with the Incremental Capacity Auction (ICA) high level design (HLD) published in March of 2019, but would proceed to implement enhancements to the Demand Response auction that will continue to evolve over time into an enduring auction mechanism.”

(a) Is the above quote referring to the Transitional Capacity Auction (TCA)? If not, is the IESO now intending to develop a new Demand Response auction outside of the TCA? If the IESO’s intent is to develop a new Demand Response auction, please respond to the questions set out below.

i. Please provide the following related to the Demand Response auction:

1. Project status update (e.g., is the program in the preliminary design phase, final design phase, etc.?)
2. Timing for when the Demand Response auction’s design will be finalized and the program offered to market.

(b) Please confirm if the Demand Response auction is a component of the MRP. If not a component, please clarify from what budget work related to the Demand Response auction will be funded.

i. If a component of the MRP, please confirm if the Demand Response auction will be reflected in the MRP business case.

RESPONSE

(a) The above refers to the TCA¹. The Capacity Auction (CA) will replace the former DR Auction, and will expand participation beyond demand response only. The Capacity Auction Phase 1 Market Rules have been approved by the IESO Board of Directors to

¹ Since the July announcement to stop work on the High Level Design for the Incremental Capacity Auction, the IESO is now referring to the Transitional Capacity Auction as the Capacity Auction. The Capacity Auction is an evolution of the IESO’s former Demand Response Auction.

- 1 prepare for a December 2019 auction. The Market Rules amendment material is available
- 2 on the IESO's website².
- 3 (b) The CA is not a part of the MRP. It is budgeted as an IESO Capital project.

² See MR-00439 – Transitional Capacity Auction <http://www.ieso.ca/Sector-Participants/Change-Management/Proposed-Market-Rule-Amendments>

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INTERROGATORY

Ref. C-2-2, p.4

At Exhibit C-2-2. Pg. 4, the IESO provides the following table that demonstrates 2019 incremental staffing levels related to the Capacity work stream.

Table 4: 2019 Capacity Work Stream - Incremental Staffing			
Staffing	2019 Budget	2019 Forecast	Variance
Regular	36.0	18.0	(18.0)
Temporary	19.0	9.0	(10.0)
Total	55.0	27.0	(28.0)

(a) For 2019, the IESO forecasts a staffing complement of 27 for the Capacity work stream:

- i. Please indicated how many of the forecasted 27 staff were hired and assigned to the Capacity work stream as of July 16, 2019 (i.e., the date the IESO announced the cancellation of detailed design work on the ICA). Please provide the actual number of staff currently assigned to the Capacity work stream.
- ii. If applicable, please justify why the IESO has hired additional staff to work on the Capacity work stream since July 16, 2019.
- iii. Please also explain what the IESO staff allocated to the Capacity work stream have been focusing their efforts on since July 16, 2019 given the IESO has posted a detailed summary of stakeholder feedback on all of the HLDs (e.g., Single Schedule Market), except the ICA HLD.¹

RESPONSE

(a) i. The Capacity work stream resourcing details from July 2019 to December 2019 are provided below.

¹ [IESO Response to Stakeholder Feedback – Single Schedule Market.](#)

Staffing Levels

July 2019 – December 2019	2019 Forecast Average FTE	2019 July 1st Point in Time Headcount	2019 December 31st Point in Time Headcount
Regular	18	19	17
Temporary	9	11	8
Total	27	30	25

- ii. No additional staff have been hired to work on the Capacity Stream since July 16, 2019.
- iii. Please see the response to OEB Staff Interrogatory 29 a) at Exhibit I, Tab 6.0, Schedule 1.29.

OEB STAFF INTERROGATORY 39

Staff-39

INTERROGATORY

Ref: C-2-2, p.4

Ref: C-2-1, p.12

The application provided forecast costs for 2020 and 2021 in relation to the ICA, as reflected in Table 9 of the evidence update (and shown in OEB Staff IR 32). In relation to the revised approach to the ICA, the updated evidence states “[r]esources will be gradually reduced through the rest of the year. The IESO expects further reductions in resources into 2020.”

(a) Please provide forecast costs and “incremental” staff resource requirements for 2020 and beyond related to the Capacity work stream if the IESO is planning further work past 2019.

(b) Please update the applicable tables to reflect all of the years that the IESO is planning to retain “incremental” staff resources to work on the Capacity work stream.

(c) Please identify when the IESO plans to cease spending on the ICA module of the MRP that it determined was no longer required based on the IESO’s updated Resource Adequacy Outlook.

RESPONSE

(a) Staff resource requirements for the Capacity Stream in 2020 are estimated at 12 FTEs, comprised of existing staff, with no incremental staffing planned to be added. Please also see the response to OEB Staff Interrogatory 42 at Exhibit I, Tab 6.0, Schedule 1.42.

(b) The costs for years beyond 2019 are preliminary estimates, not in scope of this application and will be dependent on the stakeholdering work going forward. However, please see the response to OEB Staff Interrogatory 42 c) and the response to OEB Staff Interrogatory 35 at Exhibit I, Tab 6.0, Schedule 1.35.

(c) As of June 24, 2019, the IESO wound down work on the ICA HLD, however the IESO continues to engage with stakeholders to determine how their ICA feedback should be

1 reflected in plans going forward and which features from the original HLD are needed
2 to support an enduring capacity mechanism in Ontario. This foundational work will
3 utilize the ICA design elements and stakeholder feedback to assist the IESO in making
4 informed decisions on capacity procurement. For example, an updated capacity
5 qualification process is equally applicable to a future auction or complementary
6 mechanism such as a capacity contract. The IESO will pursue these discussions as part
7 of its enduring adequacy mechanism need.

OEB STAFF INTERROGATORY 40

Staff-40

INTERROGATORY

Ref: C-2-2, p.2

At Exhibit C-2-2. p. 2, the IESO states that, "In latter 2019 and in 2020 and beyond, Capacity resources will be focused on design and engagement work related to addressing resource adequacy needs."

(a) Please confirm if the resources referred to in the above quote are those currently assigned to the Capacity work stream.

(b) The IESO's statement suggests that all resources hired specifically to work on the Capacity work stream will remain employed by the IESO on a permanent basis. Please confirm if OEB staff's interpretation of the statement is correct.

(c) Please provide a full description of the work the IESO anticipates being completed by these resources. i.e., please clarify what the IESO means by its statement that these resources will be "focused on design and engagement work related to addressing resource adequacy needs".

a. Please justify this work given the IESO's statement that adequate resources exist for the foreseeable future.¹

RESPONSE

(a) The Capacity work going forward will be completed by those currently assigned to the Capacity work stream.

(b) The IESO is unable to confirm this interpretation. Resources hired to work on the Capacity work stream are a mix of regular and contract staff assigned temporarily to the program. There are no permanent Capacity work stream positions.

(c) Please see the response to OEB Staff Interrogatory 29 at Exhibit I, Tab 6.0, Schedule 1.29. The IESO will be engaging with stakeholders to examine and address resource adequacy needs. Regardless of the procurement mechanism, there are a number of foundational capacity-related topics that require development. For instance, qualifying capacity, assessing deliverability, addressing zonal issues, and developing performance

¹ IESO updated evidence – Exhibit C, Tab 2, Schedule 2, p. 1.

1 assessments will all be important topics to address regardless of whether capacity is
2 procured through auctions, contracts, RFP's, or other mechanisms.

- 3 a. In the evidence referenced, the IESO indicated that, over the next decade, there is a
4 "limited need for additional capacity if existing Ontario resources are reacquired
5 when their contracts expire" (emphasis added). Moreover, the IESO indicated that
6 "these limited capacity needs can be met through existing and available resources
7 such as demand response, imports, generators coming off long-term contracts,
8 uprates and energy efficiency", including those expected to participate in the IESO's
9 evolving capacity auction mechanism. The work discussed in c) is required to
10 develop the mechanism to procure these existing and available resources. Although
11 adequate resources do exist, the IESO is developing open, transparent and
12 competitive mechanisms for acquiring capacity and allowing a variety of resource
13 types to compete to provide the required capacity at least cost.

OEB STAFF INTERROGATORY 41

Staff-41

INTERROGATORY

Ref: C-2-2, p.1

At Exhibit C-2-2. p. 1, the IESO states that:

“The IESO remains committed to providing open, transparent and competitive mechanisms for acquiring capacity and allowing a variety of resource types to compete. It will initiate an engagement with stakeholders on alternative approaches that could work in concert with auctions to meet capacity needs. The Capacity work stream will continue to support the development of options and tools to meet resource adequacy needs as well as auction enhancements to support an enduring auction. The revised approach allows the IESO to promote competition in a capacity auction market and through other mechanisms.”

(a) Please discuss the “options and tools”, other than an ICA, that the IESO intends to investigate related to resource adequacy.

i. How do these “options and tools” materially differ from those used by the IESO in the past to secure needed capacity (e.g., sole source procurements, requests for proposal, standard offer programs, etc.)?

(b) The IESO’s evidence indicates that in total, 27 staff will be required to engage stakeholders in order to explore resource-related “options and tools.” Please justify why 27 staff are required to complete these tasks.

i. Please identify the stakeholders being engaged, as well as the timing of these engagements in 2019.

RESPONSE

(a) Since publishing the ICA HLD, the IESO received feedback on the design from stakeholders. The IESO will explore options and tools with stakeholders and has not ruled out any options, nor has it committed to examine specific tools. However, examples of possible discussion points may include elements of contracts, RFP’s, or bilateral negotiations.

i. Please see the response to OEB Staff Interrogatory 40 c) at Exhibit I, Tab 6.0, Schedule 1.40.

1 (b) Please see the response to OEB Staff Interrogatory 29 and OEB Staff Interrogatory 31 at
2 Exhibit I, Tab 6.0, Schedule 1.29 and 1.31, respectively.

- 3 i. The IESO is currently working on the approach to engage stakeholders, and will be
4 sharing the strategy and timelines for this discussion with stakeholders in the Fall
5 of 2019. The IESO's Capacity work stream engagement will be open to all
6 interested parties.

OEB STAFF INTERROGATORY 42

Staff-42

INTERROGATORY

Ref: Updated Evidence (August 26, 2019), C-2-2, Page 1

Exhibit C-2-2 Page 1 states:

“The revised approach reflects an update in the IESO's planning outlook which indicates that, over the next decade, there is enough energy to meet provincial demand and a limited need for additional *capacity if existing Ontario resources are reacquired when their contracts expire*. These limited capacity needs can be met through existing and available resources such as demand response, imports, generators coming off long-term contracts, uprates and energy efficiency.” [Emphasis added]

(a) Please further explain what is meant by the term “available resources” in contrast to “existing resources” in the excerpt above.

(b) In light of the IESO’s outlook, please summarize the amount (e.g. capacity) and timing of Ontario resources whose contracts will expire over the coming 20 years and explain what the IESO is doing to re-acquire or replace those resources.

(c) Please outline the activities, budgets and staffing levels associated with this work in 2019 and 2020.

(d) Please describe the extent to which the costs of securing these “available resources” are reflected in the IESO’s proposed 2019 revenue requirement.

RESPONSE

(a) Existing resources refers to physical resources currently operating in Ontario. The IESO believes that there may be additional capacity available from demand response, imports, uprates, and energy efficiency.

(b) The attached table, provided as Attachment 1 to this exhibit, summarizes the contracts (by fuel type) that are expiring over the next 20 years.

The IESO remains committed to competitive mechanisms for maintaining resource adequacy. In the short term, participation in the former Demand Response (DR) auction will be expanded to include new resource types. In addition, the IESO will be engaging with stakeholders to examine complementary mechanisms that could work

with auctions to meet capacity needs. The outcome of the complementary mechanism discussion will inform the IESO what options are needed for the future; including potential enhancement to the existing DR mechanism, enabling more competition from a larger set of resources.

- (c) The activities undertaken by the Capacity team will be to initiate an engagement with stakeholders on alternative approaches that could work in concert with auctions to meet capacity needs. They will continue to support the development of options and tools to meet resource adequacy needs as well as auction enhancements to support an enduring auction.

Budget Levels

Cost Category	2019 Forecast (\$ millions)	2020 Budget (\$ millions)
Compensation & Benefits	3.6	2.1
Professional & Consulting	0.9	0.5
Operating & Admin	0.3	0.4
Capacity Total	4.8	3.0

Staffing Levels

Staffing Average Full Time Equivalent	2019 Forecast	2020 Budget
Regular	18	12
Temporary	9	-
Total	27	12

- (d) The cost to secure available resources is captured within the TCA¹ project which has a budget of \$0.7 million operating and \$1.7 million capital for 2019.

¹ Since the July announcement to stop work on the High Level Design for the Incremental Capacity Auction, the IESO is now referring to the Transitional Capacity Auction as the Capacity Auction. The Capacity Auction is an evolution of the IESO's former Demand Response Auction.

Installed MW - Expired Contracts, by fuel type																					
Fuel	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Bioenergy	37	37	42	86	299	302	303	327	330	330	350	352	361	369	372	406	407	407	409	410	410
Gas	193	193	2,424	2,464	3,047	3,059	3,731	3,731	4,776	7,121	8,171	8,503	8,966	9,008	9,084	9,310	9,361	9,702	9,702	9,705	10,720
Solar	-	-	-	-	-	-	-	0	10	39	195	431	661	1,037	1,569	2,136	2,331	2,418	2,495	2,666	2,680
Storage	-	-	-	-	-	-	-	-	2	17	17	17	17	17	17	17	17	17	17	17	17
Water	8	8	8	8	8	22	22	28	64	1,049	1,136	1,146	1,169	1,178	1,180	1,186	1,192	1,192	1,192	1,200	1,200
Wind	-	-	-	-	-	-	527	609	878	1,286	1,525	1,967	2,050	2,488	3,489	4,368	4,782	4,900	5,074	5,374	5,534
Grand Total	238	238	2,474	2,559	3,354	3,382	4,583	4,695	6,060	9,842	11,393	12,416	13,224	14,097	15,711	17,423	18,089	18,636	18,888	19,371	20,560

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OEB STAFF INTERROGATORY 43

Staff-43

INTERROGATORY

Ref: Updated Evidence (August 26, 2019), C-2-2, Page 1

Exhibit C-2-2 Page 1 states that the IESO announced on July 26, 2019 that it would “cease to move forward with” the Incremental Capacity Auction detailed design.

Exhibit C-2-2 Page 1 states:

“The revised approach reflects an update in the IESO's planning outlook which indicates that, over the next decade, there is enough energy to meet provincial demand and a limited need for additional capacity if existing Ontario resources are reacquired when their contracts expire. These limited capacity needs can be met through existing and available resources such as demand response, imports, generators coming off long-term contracts, uprates and energy efficiency.”

(a) Please provide the IESO's “updated” planning outlook referenced at Exhibit C-2-2 Page 1 and in the excerpt above which indicates that “[...] over the next decade, there is enough energy to meet provincial demand and a limited need for additional capacity if existing Ontario resources are reacquired when their contracts expire”. When was this outlook developed?

(b) The IESO published the document entitled “[Ontario Reserve Margin Requirements From 2019 to 2023](#)” on December 21, 2018.

Page 16 of that document states:

“The Ontario system satisfies the resource adequacy criterion in Section 8.2 of the ORTAC over the five year study period 2019 to 2023. Through prudent planning and a commitment to cost-efficiency, the IESO will competitively acquire resources when needed to ensure Ontario consumers have a reliable supply of electricity at lowest cost.”

- i. How, if at all, is the conclusion of the “update in the IESO's planning outlook” referenced at C-2-2 Page 1 determinatively different from the conclusion stated by the IESO in its December 21, 2018 Ontario Reserve Margin Requirements report?
- ii. If determinatively different, please explain how the “update in the IESO's planning outlook” referenced at C-2-2 Page 1 specifically led the IESO to

1 conclude that that it would “cease to move forward with” the Incremental
2 Capacity Auction detailed design.

3 (c) The IESO published the document entitled “[Ontario Planning Outlook](#)” in September.

4 Page 1 of the Ontario Planning Outlook states:

5 “Looking forward, Ontario’s electricity system is well positioned to continue to meet
6 provincial needs [...]”.

- 7 i. How, if at all, is the conclusion of the “update in the IESO’s planning outlook”
8 referenced at C-2-2 Page 1 determinatively different from the conclusion stated
9 by the IESO in its September 2016 “Ontario Planning Outlook” document?
10 ii. If determinatively different, please explain how the “update in the IESO’s
11 planning outlook” referenced at C-2-2 Page 1 specifically led the IESO to
12 conclude that that it would “cease to move forward with” the Incremental
13 Capacity Auction detailed design?

14 (d) Is the conclusion of the “update in the IESO’s planning outlook” referenced at C-2-2
15 Page 1 determinatively different from any other outlook that was developed by the
16 IESO while work was being undertaken by the IESO on the Incremental Capacity
17 Auction?

- 18 i. If so, please explain how the “update in the IESO’s planning outlook” specifically
19 led the IESO to conclude that that it would “cease to move forward with” the
20 Incremental Capacity Auction detailed design (i.e. whereas previous outlooks
21 did not lead to the same result).

22 (e) Please summarize how much was spent by the IESO on the Incremental Capacity
23 Auction and how many resources were hired to work on the Incremental Capacity
24 Auction between:

- 25 • September, 2016 and December 2018 (i.e. between the publication of the Ontario
26 Panning Outlook and the publication of the “Ontario Reserve Margin
27 Requirements From 2019 to 2023”)
28 • December 2018 and August 2019 (i.e. between the publication of the “Ontario
29 Reserve Margin Requirements From 2019 to 2023” and the IESO’s revised
30 submission)
31 • September 2016 and the date of IESO’s “updated” planning outlook referenced at
32 Exhibit C-2-2 Page 1

RESPONSE

(a) The IESO has been developing the planning outlook which is to be published later this year. The IESO presented its draft updated planning outlook at the SAC meeting on August 14, 2019¹.

(b) i. Through the annual release of the Ontario Reserve Margin Requirements (ORMR) report, the IESO communicates Ontario's planning reserve margins required over the next five years to reliably supply the province's forecast demand. As the IESO noted in the report, starting in 2019, the planning outlook will replace the annual ORMR report and will be the vehicle for the IESO to communicate the planning reserve margin requirements.

The IESO's preliminary assessment for the 2019 Planning Outlook indicates that over the next decade Ontario has a limited need for new capacity to meet Ontario's reliability requirements. The preliminary assessment is consistent with the conclusion from the shorter, more limited, time horizon assessed in the ORMR. Near-term requirements can be met by existing and available resources, including those expected to participate in the Capacity Auction, such as demand response, existing generation that is, or will be, off-contract, imports, and existing facility uprates.

The ICA was designed as a flexible tool to handle a wide variety of future resource adequacy scenarios. In June 2019 the IESO decided to cease moving forward with the ICA detailed design for two reasons:

- The preliminary assessment of the 2019 Planning Outlook caused the IESO to conclude that it can focus – in the near term – on developing a more limited Capacity Auction design with features designed to address forecasted needs.
- Stakeholders were skeptical of the ability of the ICA – as designed – to address all resource adequacy scenarios and encouraged the IESO to explore additional mechanisms to address these other scenarios.

(c) i. The 2019 Planning Outlook cannot be compared to the September 2016 Ontario Planning Outlook (OPO). The 2016 OPO presented four scenarios based upon varying

¹ <http://www.ieso.ca/en/Sector-Participants/Engagement-Initiatives/Stakeholder-Advisory-Committee/Meetings-and-Materials>.

levels of Ontario demand, ranging from ‘decreased demand’ to ‘significantly increased demand’. Each scenario drove different conclusions regarding energy and capacity adequacy. In contrast, the 2019 Planning Outlook contains a single scenario calculated from the best forward-looking information available.

ii. The multiple scenarios of the 2016 OPO influenced the IESO's approach to the design and development of the ICA as a flexible tool to handle a wide variety of future resource adequacy scenarios. The 2019 Planning Outlook further informed the IESO's approach to the development of the Capacity Auction and its evolution in a more limited manner, focused on meeting the near-term resource adequacy needs forecasted in the Planning Outlook.

- (d) i. The IESO's preliminary assessment for the 2019 Planning Outlook that Ontario has a limited need for additional capacity if existing Ontario resources are reacquired when their contracts expired, is consistent with other outlooks prepared by the IESO while work was being undertaken by the IESO on the ICA.

The IESO ceased further work on the ICA HLD to engage stakeholders who provided comments on the HLD to fully understand their concerns and to identify important design details that should be incorporated in future Capacity Auction designs. In addition, the IESO is focused on working with stakeholders to consider additional mechanisms for meeting longer term resource adequacy needs as identified in the preliminary assessment for the 2019 planning outlook.

- (e) The work on the Capacity work stream started in 2017. The actual costs of the Capacity work stream and its headcount at the various reference points are provided in the table below:

	2017		2018		2019 June YTD	
	Actual Expense (\$ millions)	Headcount as of December 31, 2017	Actual Expense (\$ millions)	Headcount as of December 31, 2018	Actual Expense (\$ millions)	Headcount
Operating	1.6	17	5.1	25	1.7	30
Capital	-		-		1.6	

1 The IESO's "updated" planning outlook referenced at Exhibit C-2-2 Page 1 has not been
2 released yet.

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OEB STAFF INTERROGATORY 44

Staff-44

INTERROGATORY

Ref: Updated Evidence (August 26, 2019), C-2-2, Page 1

Exhibit C-2-2 Page 1 states that “the current path of the [detailed design] had a lack of stakeholder support to proceed with detailed design.”

(a) When did the IESO conclude that “the current path of the [detailed design] had a lack of stakeholder support to proceed with detailed design”?

(b) Did “the current path” have stakeholder support prior to that point?

(c) What specifically led the IESO to conclude that it had a lack of stakeholder support to proceed with detailed design?

RESPONSE

(a) The IESO reviewed its options through the month of June and announced its decision to wind down ICA HLD efforts to the ICA team on June 24, 2019. Stakeholder feedback has been posted publically to the IESO’s ICA stakeholder engagement page¹ and the background to the IESO’s decision has been discussed at the MRP Update Meeting on July 17, 2019², and the Stakeholder Advisory Committee (SAC) Meeting on August 14, 2019³.

(b) Prior to the April 24, 2019 SAC meeting, the ICA HLD received satisfactory stakeholder support. The IESO published meeting materials and stakeholder feedback on their website⁴, where stakeholders can follow along with the key questions and discussion at the engagement sessions.

(c) Within that feedback, stakeholders noted that there was not a fulsome discussion around the alternatives or complementary tools to the ICA. As such, the IESO will be

¹ <http://www.ieso.ca/Market-Renewal/Stakeholder-Engagements/Market-Renewal-Incremental-Capacity-Auction>

² <http://www.ieso.ca/Market-Renewal/Stakeholder-Engagements/Update-Meetings>

³ <http://www.ieso.ca/Sector-Participants/Engagement-Initiatives/Stakeholder-Advisory-Committee/Meetings-and-Materials>

⁴ <http://www.ieso.ca/Market-Renewal/Stakeholder-Engagements/Update-Meetings>

1 convening stakeholders in the Fall of 2019 to discuss ways to meet Ontario's long-term
2 resource adequacy requirements.

VECC INTERROGATORY 13

1.0 Revenue Requirement, Operating Costs and Capital Spending

INTERROGATORY

1.7 Reference Updated Evidence Aug 26/19 B/T2/S1/pg.2 & B/T3/S1Appendix 2-AA

a) Please confirm the 2018 capital amounts shown in Table 4 (Capital Envelope) and Appendix 2-AA are actual amounts. If not please provide the 2018 actuals.

RESPONSE

a) Appendix 2-AA with updated 2018 Actuals is provided on the following page.

Appendix 2-AA

Capital Projects Table

Change Initiatives/Projects (in millions)	2017 Actuals	2018 Estimate	2018 Actuals	2019 Plan	2020 Plan	2021 Plan
Market Information System Refresh	2.7					
Identity Access Management	2.1					
Enterprise Cyber Security Management Refresh (Advanced Malware)	2.8					
MIS Upgrade		1.3	1.3	-	-	-
Data Centre Capacity Management		1.7	1.9	-	-	-
Operations Readiness Initiatives (ORI Initiatives)	1.0	2.0	1.9	0.3	-	-
Wallboard Refresh		1.8	1.7	2.0	-	-
Infrastructure Refresh	1.5	1.1	1.8	2.6	3.0	3.0
Replacement of Settlement Systems		-		1.5	3.0	6.0
FIT & microFIT Tool Redevelopment and Integration Project	1.1	0.8	1.0	0.2	-	-
Aspen Refresh Project		0.6	0.6	0.2	-	-
IESO Simulator Project – Phase 2		0.2	0.3	0.3	-	-
Wide Area View	0.1	0.2	0.3	0.5	2.5	0.5
PMU Phase 3		-		1.0	2.5	0.5
Oracle 12c Technical Refresh		-		1.4	-	-
Tier 1 Storage Refresh		-	-	0.1	1.0	
SCADA/EMS Replacement		-	-	-	3.5	6.0
Control Room Upgrade		-		1.5	-	-
IT Service Management (ITSM)		-		0.2	0.5	0.3
Dispatch Data Management System (DDMS) Refresh		-	0.4	0.7	1.5	1.0
Access Switches		-	-	-	1.0	-
Capital (\$1M & above)	11.4	9.7	11.1	12.5	18.5	17.3
Other Capital Initiatives/Projects	4.9	4.7	3.3	4.8	1.8	0.6
Core Operations Capital	16.3	14.4	14.4	17.3	20.3	17.9
Market Renewal Program (MRP)	0.2	1.2	1.4	38.0	43.3	40.8
Total Capital including Market Renewal	16.5	15.6	15.8	55.3	63.6	58.7

VECC INTERROGATORY 14

6.0 Market Renewal Program

INTERROGATORY

6.2 Reference Updated Evidence Aug 26/19; C/T2/S1, pgs. 10-

a) Please restate Tables 7 and 8 to show the actual spending as of August 1, 2019?

RESPONSE

Actuals as of August 1, 2019 have not been finalized. Actuals as of June 30, 2019 are provided below.

The full-year operating forecast is \$11.7 million and the capital forecast is \$26.0 million.

Table 7: 2019 MRP Operating Budget by Work Stream

Work Stream	Cost Category	2019 June YTD Actuals	2019 Full Year Forecast	2019 Full Year Budget
Energy	Compensation & Benefits	0.8	0.9	0.9
	Professional & Consulting	0.6	1.3	1.3
	Operating & Admin	-	0.1	0.1
	Energy Total	1.4	2.3	2.3
Capacity	Compensation & Benefits	1.4	3.6	3.5
	Professional & Consulting	0.3	0.9	1.1
	Operating & Admin	-	0.3	0.2
	Capacity Total	1.7	4.8	4.8
General	Compensation & Benefits	0.4	1.3	1.3
	Professional & Consulting	0.6	2.4	2.4
	Operating & Admin	0.1	0.9	0.9
	General Total	1.1	4.6	4.6
Program	Compensation & Benefits	2.6	5.8	5.7
	Professional & Consulting	1.5	4.6	4.8
	Operating & Admin	0.1	1.3	1.2
	Program Total	4.2	11.7	11.7

1 Table 8: 2019 MRP Capital Budget by Work Stream

Work Stream	Cost Category	2019 June YTD Actuals	2019 Full Year Forecast	2019 Full Year Budget
Energy	Compensation & Benefits	2.8	10.0	10.0
	Professional & Consulting	1.2	3.8	3.8
	Operating & Admin	0.2	12.2	12.2
	Energy Total	4.2	26.0	26.0
Capacity	Compensation & Benefits	1.2	-	7.0
	Professional & Consulting	0.3	-	3.3
	Operating & Admin	0.1	-	1.7
	Capacity Total	1.6	-	12.0
Program	Compensation & Benefits	4.0	10.0	17.0
	Professional & Consulting	1.5	3.8	7.1
	Operating & Admin	0.3	12.2	13.9
	Program Total	5.8	26.0	38.0

VECC INTERROGATORY 15

6.0 Market Renewal Program

INTERROGATORY

6.3 Exhibit I, BOMA IR 8

The following is extracted from the Directive on Accounting Standards: GC 3150 Tangible Capital Assets. <https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32518§ion=html>

8. Other indirect costs, such as employer benefit plans (EBPs), internal legal services, public service insurance (PSI) and standard accommodation allowances, should be capitalized if, in the judgment of the department, they are considered material to the cost of the asset. (Emphasis added)

a) Please confirm the reduction in external legal costs related to the MRP is \$0.6 million (1.7-1.1).

b) Please explain what portion of these costs are capitalized and, if any, explain how capitalization of external legal costs meet the referenced Directive.

RESPONSE

a) The forecasted external legal costs are \$0.6 million lower than budget as a result of the changes to the Capacity work stream.

Work Stream	Operating Budget (\$ millions)	Capital Budget (\$ millions)	Total Budget (\$ millions)
General	0.3	-	0.3
Energy	-	0.8	0.8
Capacity	0.2	0.4	0.6
Total	0.5	1.2	1.7
Work Stream	Operating Forecast (\$ millions)	Capital Forecast (\$ millions)	Total Forecast (\$ millions)
General	0.3	-	0.3
Energy	-	0.8	0.8
Capacity	-	-	-
Total	0.3	0.8	1.1

- 1 b) The capitalized legal costs are legal support costs required in the development of
2 detailed design which is a capital expense, which is consistent with the IESO's internal
3 capital policy and the referenced Directive. The legal support activities include:
- 4 • Legal services for procurement proposals terms and conditions. This also includes
5 final contract negotiations for awarded service providers, e.g., Dispatch Scheduling and
6 Optimization (DSO) procurement; and
 - 7 • Market Participant Contract amendments due to Energy design changes under MRP.

VECC INTERROGATORY 16

6.0 Market Renewal Program

INTERROGATORY

6.4 Reference Exhibit I, Staff IR 14

a) Please explain why the total headcount in the months December through April are higher in the revised MRP Monthly and Accumulative Headcount charge?

b) Why were "Support Resources" not shown in the original response? Are the totals in the original chart comparable to the headcount net of "Support Resources"? Or is the gross amount in the revised interrogatory comparable to the gross amount in the original chart?

RESPONSE

a) Please see the response to AMPCO Interrogatory 40 at Exhibit I, Tab 6.0, Schedule 13.40.

b) Both resourcing graphs include support resources, however, the previous graph excluded some support resources that were later identified.

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VECC INTERROGATORY 17

6.0 Market Renewal Program

INTERROGATORY

6.5 Reference Exhibit I, SEC 21, Attachment 1 A Benefit Case Assessment of the Market Renewal Project – Brattle, April 2017, pgs. 8-

- a) The Brattle reports states the majority of benefits of the MRP are attributable to the (now cancelled) Capacity Auction (\$2,530 million), as compared to (\$1,090 million) in benefits from energy and operability projects. Furthermore The energy component relies on the commitment to locational marginal pricing for suppliers which is not currently part of Ontario's electricity market (pg. 6). Given the cancellation of the Capacity project and the inherent uncertainty of benefits in the Energy component what is the basis for relying on the Brattle benefit assessment to continue with the MRP program?

RESPONSE

- a) The MRP Capacity work stream has not been cancelled, the IESO made the decision to discontinue work on the ICA HLD. For the MRP Capacity work stream, the IESO continues to engage with stakeholders to determine how their ICA feedback should be reflected in plans going forward and which features from the original HLD are needed to support an enduring capacity mechanism in Ontario. The IESO will develop a benefit and costing assessment before completing any additional Capacity Auction design work. Please also see the response to OEB Staff Interrogatory 40 at Exhibit I, Tab 6.0, Schedule 1.40.

The IESO has prepared a Business Case that provides the expected benefits and costs of the MRP Energy work stream. Work on the MRP Energy work stream Business Case started in Q1 2019 and will be completed by the end of Q3, 2019. The Business Case provides the rationale for implementing the MRP Energy work stream including the expected operational, reliability and financial benefits. A detailed assessment of project costs and risks is also included in the MRP Energy work stream Business Case.

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VECC INTERROGATORY 18

6.0 Market Renewal Program

INTERROGATORY

6.6 Reference SEC IR 21

- a) Please explain why the Opex for the Capacity phase of the MRP remains unchanged at \$4.72 million.
- b) The unchanged Opex includes a contingency amount of \$0.26 million. Please explain what contingency the IESO is contemplating for the cancelled program?

RESPONSE

- a) SEC Interrogatory 21 in the updated evidence provides the MRP budget amounts for operating and capital. The IESO does not revise its approved budgets but rather reflects changes through quarterly forecasts. Therefore, the budget has not been updated as a result of the changes to the Capacity work stream. All changes are reflected in the forecast spend for MRP, and the forecasted cost for the Capacity work stream is \$4.8 million.

For Capacity work stream activities for the remainder of 2019, please see the response to OEB Staff Interrogatory 29 at Exhibit I, Tab 6.0, Schedule 1.29.

- b) The original operating budget for the Capacity work stream included \$0.3 million in contingency. The updated forecast for 2019 for the Capacity work stream does not include contingency.

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ENERGY PROBE INTERROGATORY 21**EP IR #21****INTERROGATORY****Ref.: Exhibit C Tab 2 Schedule 2 Page 3 Tables 1 and 2**

Preamble: Operating expenses to support the Capacity work stream were budgeted at \$4.8 million and the current 2019 forecast is in line with budget. The operating expenses incurred to date by the Capacity work stream went into the development of the published ICA HLD1 and the associated stakeholder engagement activities. The costs for the remainder of 2019 will include engaging with stakeholders involved in the ICA HLD on which features of the HLD are needed to support addressing resource adequacy needs and broader discussions on competitive procurement mechanisms.

- a) The referenced Tables indicate lower Costs in 2019 related to cancellation of the CWS.
- b) Please delineate in detail these costs, including O&M and Capital.
- c) What are the CWS costs forecast for 2020?

RESPONSE

- a) NA
- b) The Capacity Stream had reduced its capital budget from \$12.0 million to zero as a result of the change in approach on the ICA HLD.

(\$ millions)	Original Submission		Updated Evidence	
	2019 Budget Operating	2019 Budget Capital	2019 Forecast Operating	2019 Forecast Capital
Compensation & Benefits	3.5	7.0	3.6	-
Professional & Consulting	1.1	3.3	0.9	-
Operating & Admin	0.2	1.7	0.3	-
Interest	-	-	-	-
Capacity Total	4.8	12.0	4.8	-

- c) The operating expenses in support of capacity-related work in 2020 are estimated at \$3.0 million.

(\$ millions)	2020 Budget
Compensation & Benefits	2.1
Professional & Consulting	0.5
Operating & Admin	0.4
Capacity Total	3.0

1 **ENERGY PROBE INTERROGATORY 22**

2 **EP IR #22**

3 **INTERROGATORY**

4 **Ref.:** Exhibit C Tab 2 Schedule 2 Page 4

5 **Preamble:** Capacity work stream costs for the remainder of 2019 were predominantly budgeted
6 as capital costs for the planned detailed design stage. As a result, the revised approach for the
7 Capacity work stream creates a reduction of \$12 million of capital costs. Revised 2019 capital
8 costs for the MRP are now \$26 million, compared to the original budgeted \$38 million.

9 a) Please translate this reduction into

10 i) 2019 Revenue Requirement

11 ii) 2019 Fees

12 b) Please discuss the options for the change in the 2019 RR to be rebated to ratepayers
13 including the reserve fund.

14 **RESPONSE**

15 The revised approach for the Capacity work stream resulted in reduced capital spending and
16 does not impact operating expenses or operating reserve, which remain at budgeted levels.
17 Accordingly, there is no impact to 2019 Fees as a result of the reduced capital requirement.

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ENERGY PROBE INTERROGATORY 23

EP IR #23

INTERROGATORY

Ref.: Exhibit C Tab 2 Schedule 2 Page 5 and Business Plan

Preamble: MRP Business Case

Given the revised approach to the Capacity work stream, the MRP Business Case will focus exclusively on assessing the net benefits of the new energy market as defined in the Energy HLDs. Analysis of the future benefits of MRP, as well as the total annual and projected MRP budget will be further refined through the MRP Business Case and the IESO's 2020 2022 Business Plan.

a) Why is IESO deferring providing the documentation of the Changes to the MRP Capacity work stream to the 2020 Business Plan?

b) Please provide a copy of the revised Business Plan provided to the IESO Board of Directors

RESPONSE

a) Changes to the Capacity work stream and related cost impacts were documented in the updated evidence filed on August 26, 2019. The IESO's 2020-2022 Business Plan, which details costs and forecasts for 2020-2022 is not within the scope of the 2019 Revenue Requirement Submission.

b) The IESO's practice is to not update its approved business plans, but rather to monitor financial performance against plans and to provide updates to the IESO Board and its committees through quarterly forecast updates. The most current forecast based on June YTD results was included in the updated evidence.

Please see response to AMPCO Interrogatory 35 at Exhibit I, Tab 6.0, Schedule 13.35 for materials provided to the IESO's Board of Directors on August 28, 2019.

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ENERGY PROBE INTERROGATORY 24

EP IR #24

INTERROGATORY

Ref.: Exhibit I, SEC 21, Attachment 1 Brattle : A Benefit Case Assessment of the Market Renewal Project –April 2017

Preamble: The majority of benefits of the MRP are attributable to the Capacity Auction ~\$2,5 Billion,

Given the cancellation of the Capacity Project will IESO prepare a new Benefits Realization Plan for the MRP? Please discuss, including rationale and timing.

RESPONSE

The Capacity work stream has not been cancelled, the IESO wound down work on the ICA HLD, however the IESO continues to engage with stakeholders to determine how their ICA feedback should be reflected in plans going forward and which features from the original HLD are needed to support an enduring capacity mechanism in Ontario. This foundational work will utilize the ICA design elements and stakeholder feedback to assist the IESO in making informed decisions on capacity procurement.

The IESO has prepared an MRP Energy Business Case that provides the expected benefits and costs of the Energy work stream. Work on the MRP Energy Business Case started in Q1 2019 and will be completed by the end of Q3, 2019. The Business Case provides the rationale for implementing the Energy work stream including the expected operational, reliability and financial benefits. A detailed assessment of project costs and risks is also included in the MRP Energy work stream Business Case.

For the Capacity work stream, the IESO plans to complete a review of complementary resource acquisition mechanisms in late 2019. The IESO will develop a benefit and costing assessment before completing any additional Capacity Auction design work.

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CME INTERROGATORY 7

CME #7

INTERROGATORY

Ref: Exhibit C, Tab 2, Schedule 2, page 2 of 9

At Exhibit C, Tab 2, Schedule 2, page 2, the IESO states: "Operating expenses to support the Capacity work stream were budgeted at \$4.8 million and the current 2019 forecast is in line with budget. The operating expenses incurred to date by the Capacity work stream went into the development of the published ICA HLD and the associated stakeholder engagement activities. The costs for the remainder of 2019 will include engaging with stakeholders involved in the ICA HLD on which features of the HLD are needed to support addressing resource adequacy needs and broader discussions on competitive procurement mechanisms."

- a. Please break out with greater detail what sort of activities will be involved in engaging stakeholders, and broader discussions on competitive procurement mechanisms, how many FTEs are required to complete all of the tasks, and the costs.

RESPONSE

- a. Please see the response to OEB Staff Interrogatory 29 at Exhibit I, Tab 6.0, Schedule 1.29.

The cost and average FTEs from July 2019 – December 2019 are provided below.

July 2019 – December 2019 Rest of Year	Forecast (\$ millions)
Compensation & Benefits	2.0
Professional & Consulting	0.4
Operating & Admin	0.2
Total Operating Expense	2.6

Staffing Levels

July 2019 – December 2019 Average FTEs	2019 Forecast
Regular	18
Temporary	9
Total	27

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CME INTERROGATORY 8

CME #8

INTERROGATORY

Ref: Exhibit I, Tab 6.1, Schedule 10.21, page 12 of 20

At Exhibit I, Tab 6.1, Schedule 10.21, page 12, the IESO states: "The largest customer efficiency benefits from MRP are associated with the ICA. Customers will realize these benefits as reductions in capacity charges based on capacity auction procurement costs that are below the costs of expiring supply contracts.

As detailed in The Benefits Case, it is expected the ICA will provide benefits to Ontario consumers of \$120-\$200 million per year in the initial years, eventually growing to benefits of \$290-\$610 million per year. In order to realize these benefits, the ICA will strive to deliver the most economically efficient outcomes available through a dynamic and technology neutral auction process. Capacity auctions can achieve efficiency benefits by creating a competitive market for suppliers, by increasing the system's ability to adjust to changing supply and demand dynamics."

- (a) Given that the ICA is no longer moving forward, what level of benefits does the IESO anticipate to be able to reap from the new scope of the MRP project
- (b) What level of benefits will accrue to ratepayers and the system as a whole as a result of the newly proposed work on the demand response auction?
- (c) If not, how can the IESO be sure that the additional work and cost will be a net benefit?
- (d) Will the IESO update the benefits case? If so, when will it become available?

RESPONSE

- (a) The IESO has prepared an MRP Energy work stream Business Case that includes a detailed assessment of both quantitative and qualitative benefits attributable to the revised MRP scope. The net benefits (including costs) are expected to be \$800 million (range between \$660 million and \$930 million) over the first ten years of implementation. Note that these numbers will be presented to stakeholders before being finalized.

Please see the response to OEB Staff Interrogatory 40 c) a. at Exhibit I, Tab 6.0, Schedule 1.40. In addition, for the Capacity work stream, the IESO plans to complete a review of complementary resource acquisition mechanisms in 2019. The IESO will develop a benefit

1 and costing assessment before completing any additional Capacity Auction design work
2 beyond what has already been approved by the IESO Board.

3 (b) Given the scope of these interrogatories, and the preamble to this question, the IESO has
4 interpreted this question to relate to the ICA. The IESO plans to complete a review of
5 complementary resource acquisition mechanisms in 2019 and will develop a benefit and
6 costing assessment before completing any additional capacity auction design work beyond
7 what the IESO Board of Directors has already approved. See also OEB Staff Interrogatory
8 40 c) a.

9 (c) Please see the response to OEB Staff Interrogatory 40 c).

10 (d) The IESO will not be updating the 2017 Benefits Case. Instead, the IESO has prepared a
11 detailed assessment of the net benefits attributable to the Energy work stream in the MRP
12 Energy work stream Business Case.

13 For the Capacity work stream, please see the response to a) above.

SEC INTERROGATORY 23

SEC-23

INTERROGATORY

[C-2-2, p.1] With respect to the decision to cease moving forward with the Incremental Capacity Auction (“ICA”):

- a. On what date was the decision made internally within the IESO to cease moving forward with the ICA?
- b. Was the decision approved by the IESO’s Board of Directors?
- c. On what date did the IESO first become aware of the “limited capacity needs for Ontario in the future”?
- d. The IESO states that one of the reasons for its decision is the lack of stakeholder support of the incremental capacity auction. Please provide details of the lack of support and when that became known to the IESO.

RESPONSE

- a) Please see the response to OEB Staff Interrogatory 39 c) at Exhibit I, Tab 6.0, Schedule 1.39.
- b) The decision was made by IESO management and the IESO Board of Directors was informed of the decision.
- c) Please see the response to OEB Staff Interrogatory 43 at Exhibit I, Tab 6.0, Schedule 1.43. The IESO has been working on the Annual Planning Outlook, in preparation for release in Fall 2019. As part of that process, the IESO has been conducting work to update its demand forecast, which shows the province’s future capacity needs. General discussions on the limited capacity needs took place in late May and early June 2019.
- d) Please see the response to AMPCO Interrogatory 36 b) at Exhibit I, Tab 6.0, Schedule 13.36 and OEB Staff Interrogatory 44 at Exhibit I, Tab 6.0, Schedule 1.44.

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SEC INTERROGATORY 24

SEC-24

INTERROGATORY

[C-2-2] Please explain why there is no change in the 2019 MRP general work stream costs as a result of the decision to cease moving forward with the ICA.

RESPONSE

The MRP General work stream includes program governance, recruitment and work to enable participation in future markets (NERSC) which is still required for the Energy work stream as it ramps up to the implementation phase and still required for the Capacity work stream to help with initiating the new deliverables and managing the reassignment of resources.

Please also see the response to OEB Staff Interrogatory 33, at Exhibit I, Tab 6.0, Schedule 1.33.

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SEC INTERROGATORY 25

SEC-25

INTERROGATORY

[C-2-2, A-1-1, p.3] Please explain why with the cessation of the ICA, IESO still believes it requires the ability to retain a \$10M balance in the FDVA, an increase over the existing \$6M approved amount.

RESPONSE

The primary objective of maintaining an operating reserve is to fund operations in the event of revenue shortfalls or unanticipated expenditures and to minimize rate fluctuations to rate payers as a result of these events. They include large project complexities that relate to the IESO's key risks as well as significant efforts pertaining to market renewal, transmission capacity auction and settlements replacement.

A material example of how the IESO used the operating reserve to fund unanticipated expenditures was in 2018 when a historical restatement of the pension and OPEB expenses took place, resulting in an additional \$13.4 million in expenses and an operating reserve deficit of \$4.7 million. A \$10 million operating reserve would have helped mitigate the operating reserve deficit as a result of this unplanned event.

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SEC INTERROGATORY 26

SEC-26

INTERROGATORY

[C-2-2, p.1-5] With respect to the ICA stream budget:

- a. With respect to tables 1 and 2, was any contingency built into the budgets/forecasts? If so, please provide a breakdown and include actuals as appropriate.
- b. The Applicant states, “[t]he costs for the remainder of 2019 will include engaging with stakeholders involved in the ICA HLD on which features of the HLD are needed to support addressing resource adequacy needs and broader discussions on competitive procurement mechanisms.” Please provide a breakdown of the costs related this work and explain how the amount was forecast.
- c. Please provide the number of forecast FTEs involved in the ICA stream at the time of the filing of the application, the current number of FTEs, and the number expected at year-end.

RESPONSE

- a. Please see response to SEC Interrogatory 21 at Exhibit I, Tab 6.1, Schedule 10.21.
The original operating budget for the Capacity work stream included \$0.3 million in contingency. The updated forecast for 2019 for the Capacity work stream does not include contingency.
- b. The following is a breakdown of the cost of the Capacity work stream for the remainder of 2019 with a description of budget items that make up the forecast.

July 2019 – December 2019 Rest of Year	Forecast (\$ millions)	Description of Budget Item and how it was Forecasted
Compensation & Benefits	2.0	Staff costs related to the staffing levels in c) below
Professional & Consulting	0.4	Estimated support costs from the consultants that helped prepare the high level design for ICA
Operating & Admin	0.2	Lease costs for MRP facility
Total Operating Expense	2.6	

- c. The number of resources involved in the Capacity work stream have been provided for June, August and forecasted for December of 2019.

Staffing Levels

July 2019 – December 2019 Full Time Equivalents	2019 Actual January	2019 Actual June	2019 Forecast December
Regular	17	19	17
Temporary	8	11	8
Total	25	30	25

1 **SEC INTERROGATORY 27**

2 **SEC-27**

3 **INTERROGATORY**

4 [C-2-2, p.5] With respect to the MRP energy stream:

- 5 a. [I-6.1-10.21 SEC 21, p.18] Please provide an update on the procurement of the new
6 Dispatch Scheduling and Optimization (DSO) system.
- 7 b. Please confirm that the IESO will not make any legally binding financial commitments
8 for a new DSO system until the approval of the business case by the IESO Board of
9 Directors. If this is not confirmed, please explain why approval of the business case
10 should not be a prerequisite to commitment to making any legal commitments to
11 procuring a DSO system.

12 **RESPONSE**

- 13 a. The IESO is currently evaluating proposals submitted in response to the Dispatch
14 Scheduling and Optimization (DSO) procurement.
- 15 b. The IESO anticipates that any financial commitments for a new DSO system will not
16 occur until after the approval of the business case.

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SEC INTERROGATORY 28

SEC-28

INTERROGATORY

[C-2-2, p.5] With respect to the MRP business case, please provide a breakdown of the 2019 energy stream capital and operating budget that is expected to be spent before the approval of the business case by the IESO Board of Directors and the amount that is expected to be spent after.

RESPONSE

The MRP Energy Business Case is being presented to the IESO Board of Directors at the end of October 2019.

Operating Expenses	Energy Budget (Pre business case approval)	Energy Budget (Post business case approval)	Energy Budget Total
Compensation & Benefits	0.7	0.2	0.9
Professional & Consulting	1.0	0.3	1.3
Operating & Admin	-	0.1	0.1
Energy Total	1.7	0.6	2.3

Capital Expenses	Energy Budget (Pre business case approval)	Energy Budget (Post business case approval)	Energy Budget Total
Compensation & Benefits	8.0	2.0	10.0
Professional & Consulting	3.2	0.6	3.8
Operating & Admin	2.2	10.0	12.2
Energy Total	13.4	12.6	26.0

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SEC INTERROGATORY 29

SEC-29

INTERROGATORY

[<http://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/mrpum/mrpum-20190826-presentation-business-case.pdf?la=en>] With respect to the draft MRP business case dated August 26, 2019, that the IESO has made public:

- a. Please place a copy of the referenced document and any more up to date versions of the draft business case, on the record in this proceeding.
- b. [slide 33] The slide includes a chart showing the level of cost uncertainty at different stages in different phases in the projects timeline. What is the basis of the calculation of the level of uncertainty in each phase?
- c. [slide 49, 50] Please provide a further breakdown of the information contained in slide 49 (capital and OM&A costs for each of 2017 to 2023), into the cost categories provided in slide 50.
- d. [slide 52 and 53] Please provide a significantly more detailed breakdown of the costs contained for IT and professional and consulting costs.
- e. [slide 54] What is the basis for the amount of contingency assigned to each cost category?
- f. What are the expected additional costs to be incurred from 2024 to 2033 (the same period the system benefits are calculated)?
- g. Please explain why there is no calculation of the uncertainty levels for the quantifiable benefits.

RESPONSE

a. – g. The document referenced is available on the IESO's website and is a presentation to stakeholders delivered on August 26, 2019 where the IESO provided preliminary details of work that will subsequently inform the MRP Energy Business Case.

The information presented in that document is still under development through discussions with stakeholders at the MRP Update Meetings, and has not yet been finalized. The IESO anticipates presenting the Business Case to the IESO's Board of Directors in October 2019.

1 Subject to the approval of the IESO Board of Directors, the IESO intends to provide the Business
2 Case to stakeholders before the end of the year for their review.

3 As per the OEB's Decision Issues List (March 28, 2019), the OEB is not approving the total MRP
4 budget in this proceeding. It would not clarify the record in this proceeding to provide
5 preliminary draft information from the MRP Energy Business Case stakeholder engagement
6 through the requested further breakdown for years beyond 2019. Subject to the approval of the
7 IESO Board of Directors, the IESO intends to provide the Business Case to stakeholders before
8 the end of the year for their review. It is expected that the MRP Energy Business Case will be
9 included directly or by reference along with the IESO's 2020 Revenue Requirement Submission.

APPrO INTERROGATORY 15

Update on Status of Incremental Capacity Auction

APPrO INTERROGATORY 1

Reference: Exhibit C-2-2, p. 1

The evidence states that the proposed ICA has a lack of stakeholder support to proceed with detailed design and that the IESO stopped further work.

APPrO understands that the IESO is seeking to purchase capacity through a Transitional Capacity Auction ("TCA") starting in 2020.

1. Please advise whether the TCA has more or less stakeholder support than the ICA.

RESPONSE

The IESO engages stakeholders on a frequent basis about key issues in the industry, and the engagements are subject to a set of principles¹.

The Transitional Capacity Auction² has been subject to those same engagement principles, and stakeholder can transparently monitor the progress of the engagement through participating in our meetings and events, or through the record of documentation on our website³.

¹ <http://www.ieso.ca/Sector-Participants/Engagement-Initiatives/Overview/Engagement-Principles>

² Since the July announcement to stop work on the High Level Design for the Incremental Capacity Auction, the IESO is now referring to the Transitional Capacity Auction as the Capacity Auction. The Capacity Auction is an evolution of the IESO's former Demand Response Auction.

³ <http://www.ieso.ca/Sector-Participants/Engagement-Initiatives/Engagements/Meeting-Ontarios-Capacity-Needs-2020-2024>

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APPrO INTERROGATORY 16

Update on Status of Incremental Capacity Auction

APPrO INTERROGATORY 2

Reference: Exhibit C-2-2, p. 1

The evidence states that the “IESO remains committed to providing open, transparent and competitive mechanisms for acquiring capacity and allowing a variety of resource types to compete.”

In light of this commitment to openness, transparency and competitive mechanisms, please confirm that, for the 2020 TCA or subsequent TCA’s:

1. The IESO will consider the merits of a range of alternative procurement approaches;
2. the IESO will undertake a stakeholder engagement process to develop these alternative procurement approaches;
3. the stakeholder engagement process will include an independent cost-benefit analysis of all potential procurement approaches, which will include input from stakeholders on how the cost-benefit analysis should be considered in implementing any alternative procurement approach.

If the IESO is not prepared to confirm this, why not?

RESPONSE

The IESO remains committed to a competitive electricity marketplace and working with its stakeholders to develop a Capacity Auction that can meet our resource adequacy needs. In the fall of 2019, the IESO will begin a stakeholder engagement to examine what complementary mechanisms should exist alongside the evolving auction mechanism. The IESO expects that this engagement will examine system needs along with resource development requirements.

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AMPCO INTERROGATORY 35

AMPCO-35

INTERROGATORY

Ref: C-2-2 P1

The updated evidence states “On July 16, 2019, the IESO announced that it would cease to move forward with the Incremental Capacity Auction (ICA) high level design (HLD) published in March of 2019, but would proceed to implement enhancements to the Demand Response auction that will continue to evolve over time into an enduring auction mechanism.

a) Please provide copies of all documentation provided to the IESO’s Board of Directors since the announcement.

b) Please provide copies of all documentation between the IESO and the Province since the announcement.

RESPONSE

a) OEB Procedural Order #6 scopes this interrogatory process to relate to the updated evidence on the change in approach to the ICA.

Documentation provided to the IESO’s Board of Directors since the announcement relating to the IESO’s decision to discontinue work on the ICA is provided as Attachments to this exhibit as outlined below. These materials are listed in the order they are found on the IESO’s website [here](#):

Attachment 1

[Agenda Item Summary](#)

[Memorandum from the Technical Panel Chair](#)

[IESO Summary Presentation](#)

IESO legal memo (privileged and confidential– not made publicly available)

Attachment 2

Market Rule Amendment Proposals

- [R00 – Changes to Market Rule Definition](#)
- [R01 – Participant Authorization and Facility Registration](#)
- [R02 – Auction Parameters and Publication](#)
- [R03 – Energy Market Participation](#)
- [R04 – Non-Performance Charges and Settlements](#)
- [R05 – Removal of DR Pilots and CBDR Sections](#)

Attachment 3

- [Draft Resolution](#)
- [Technical Panel member vote and rationale](#)

Attachment 4

Stakeholder Feedback

- [Advanced Energy Management Alliance \(AEMA\)](#)
- [Association of Major Power Consumers of Ontario \(AMPCO\)](#)
- [Enel X](#)
- [AEMA & AMPCO joint submission](#)

Attachment 5

[Consumer Impact Assessment](#)

[Technical Panel and Stakeholder Comments](#)

[IESO email to Rodan and AMPCO, dated August 16, 2019](#)

Attachment 6

[IESO Board Decision](#)

- [Amendment Proposal R00 – Changes to Market Rule Definitions](#)
- [Amendment Proposal R01 – Participant Authorization and Facility Registration](#)

- [Amendment Proposal R02 – Auction Parameters and Publication](#)
- [Amendment Proposal R03 – Energy Market Participation](#)
- [Amendment Proposal R04 – Non-Performance Charges and Settlement](#)
- [Amendment Proposal R05 – Removal of DR Pilots and CBDR Sections](#)

Attachment 7

August 28, 2019 Agenda Item Summary - Market Renewal Program/Transitional
Capacity Auction Update

Attachment 8

August 28, 2019 Presentation - Market Renewal Program/Transitional Capacity Auction
Update

Attachment 9

August 27, 2019 to Audit Committee of the Board of Directors - Agenda Item Summary -
Market Renewal Program Update / Dashboard Report “Market Renewal Dashboard –
August 2019”

- b) OEB Procedural Order #6 scopes this interrogatory process to relate to the updated evidence
on the change in approach to the ICA.

In relation to the IESO’s decision to discontinue work on the ICA design, the IESO briefed
the Ministry on its decision on July 4, 2019. Since the July 16, 2019 announcement, the IESO
has not drafted materials or provided documents to the Ministry on the IESO’s decision to
discontinue work on the ICA.

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Agenda Item Summary

Date of Meeting:	August 28, 2019
Presenter:	Leonard Kula, Vice President, Planning, Acquisition & Operations David Short, Director, Transitional Capacity Auction Project Jessica Savage, Director, Corporate & Regulatory Affairs Reena Goyal, Senior Counsel – Senior Manager, Market Rules & Dispute Resolution, and Assistant CRCO James Hunter, Senior Legal Counsel
Agenda Item:	Market rule amendment proposals re: Transitional Capacity Auction
Purpose of item: ¹	Decision
Executive Summary ² :	<p>The IESO is seeking a decision from the IESO Board on proposed market rule amendments regarding the implementation of the first phase of a transitional capacity auction (TCA) (MR-00439-R00-R05). The Technical Panel recommends to the IESO Board that these amendment proposals be adopted.</p> <p>The Board is being asked to exercise one of the following options:</p> <ul style="list-style-type: none">• Accept the majority vote and recommendation of the Technical Panel to approve adoption of the market rule amendments.• Not accept the majority vote and recommendation of the Technical Panel; reject the market rule amendment proposals as submitted or with changes made by the Board in its consideration of the market rule amendment proposals.• Refer the market rule amendment proposals back to the Technical Panel for further consideration and vote, or to any other person to which the Board deems appropriate.

¹ State the purpose of the agenda item: a) Education for a strategic issue, b) soliciting Feedback, or c) a Decision/Recommendation item.

² Provide concise summary of issue, identifying why the item is important to the Board, with distilled analysis, and Management's recommendation.

Significant Issues, Risks and Opportunities:³

During the stakeholder engagement and Technical Panel processes, the Association of Major Power Consumers of Ontario (AMPCO) and the Advanced Energy Management Alliance (AEMA) who represents demand response aggregators stated that while they support transitioning the Demand Response Auction to the TCA, there are 'discriminatory issues' that must first be resolved, instead of being reserved for subsequent phases of the TCA.

Materials⁴:

- Memorandum from the Technical Panel Chair
- IESO Summary Presentation
- IESO legal memo (privileged and confidential, so will not be publically available)
- Market Rule Amendment Proposals
 - R00 – Changes to Market Rule Definitions
 - R01 – Participant Authorization and Facility Registration
 - R02 – Auction Parameters and Publication
 - R03 – Energy Market Participation
 - R04 – Non-Performance Charges and Settlement
 - R05 – Removal of DR Pilots and CBDR Sections
- Draft Resolution
- Technical Panel member vote and rationale
- Stakeholder Feedback
 - Advanced Energy Management Alliance (AEMA)
 - Association of Major Power Consumers of Ontario (AMPCO)
 - Enel X
 - AEMA / AMPCO Joint submission
- Consumer Impact Assessment (this assessment is required to support the Ontario Energy Board market rule amendment review process)
- Technical Panel and Stakeholder Comments (this assessment is required to support the Ontario Energy Board market rule amendment review process)
- IESO email to Rodan and AMPCO, dated August 16, 2019

³ Provide concise description of significant issues, risks and opportunities.

⁴ Materials (memo, slides, and reports) are to be concise, providing brief analysis of salient points, risks/opportunities, and Management's recommendations. If detailed report/ background information is necessary, it should be provided in an appendix with specific direction to key sections.



Independent Electricity System Operator

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Memorandum

To: THE BOARD OF DIRECTORS
of the Independent Electricity System Operator

From: Michael Lyle, Vice President, Legal Resources and Corporate Governance
Chair, IESO Technical Panel

Date: August 20, 2019

Re: Recommendation from the Technical Panel on Market Rule Amendment Proposal

The IESO is seeking a decision from the IESO Board on the implementation of a Transitional Capacity Auction (MR-00439-R00-R05). The Technical Panel recommended this proposal to the IESO Board for consideration.

Description and Rationale

Ontario is expected to emerge from surplus conditions in 2020 and capacity is required to meet more significant resource adequacy needs starting in 2023. This market rule amendment proposal represents the first phase of the Transitional Capacity Auction (TCA) design, which enables non-committed dispatchable generators to participate in the TCA alongside dispatchable loads and hourly demand response resources. The TCA represents an evolution of the demand response auction (DRA) into a more competitive capacity acquisition mechanism.

The TCA will be implemented in a phased approach, with subsequent phases enabling more resources to participate and new auction design features. Each phase is expected to require changes to the market rules.

Stakeholder Engagement

The IESO has a formal stakeholder engagement initiative to capture and incorporate feedback from stakeholders on the design of the transition to a TCA. Stakeholders from all sectors of the marketplace participated in the initiative. Written submissions were received from generators, demand response aggregators, the Market Surveillance Panel, consumers and associations representing local distribution companies, generators and consumers. During the engagement, stakeholders provided feedback in the following areas.

1. Timelines: In response to stakeholder feedback, the IESO reduced the scope of TCA Phase I changes and adjusted the stakeholder schedule cycle to allow sufficient time for stakeholder input and stakeholder review of draft market rules and manual manuals.
2. Future opportunities: Some stakeholders noted that the expansion of the DRA would create an 'un-level playing field' for existing DRA participants. The IESO recognizes that there may be opportunities to remove certain barriers that demand response resources face in IESO markets and reiterated our commitment to discuss these issues with stakeholders.
3. Target Capacity Approach: Stakeholders raised questions regarding the target capacity amount to be procured and the need for the TCA to be implemented as early as the December 2019 auction. The IESO stated that the resource adequacy needs increase significantly during the TCA planning time frame and the IESO must create an appropriate business environment and confidence in the auction process to sustain and develop resources such that sufficient capacity is available when needed in the years when the capacity requirement increases significantly (2023-2026).
4. Enabling Eligible Resources: There were requests from stakeholders to include other resource types as part of Phase I. The IESO provided a proposed schedule of resource type inclusions for subsequent phases of the TCA.
5. Suggestions for material changes to the Phase I design: Suggestions included expanding capacity transfers between resource types, allowing contingent offers and recognizing economies of scale in auction offer submissions. Within Phase I, the IESO did incorporate stakeholder requests to add a clause to the market rules to transfer auction capacity to the same market participant and to reconsider the proposed changes to non-performance factors. Other suggestions will require a more thorough discussion and time to design. These other suggestions will be considered for subsequent auctions and discussed at appropriate upcoming stakeholder engagement meetings.
6. Alignment of stakeholder engagements: Stakeholders encouraged the IESO to seek efficiencies and alignment between several related stakeholder engagements.

As part of the Technical Panel process, the market rule amendment proposal was published on the IESO public website for stakeholder review and written comment for two weeks. Submissions were received from the Advanced Energy Management Alliance (AEMA), the Association of Major Power Consumers (AMPCO) and Enel X.

Enel X recommended that section 4.8 of Chapter 9¹, which is already in effect as part of the DRA market rule set, be amended and then included in the TCA rule set. The basis of the recommendation was Enel X's expressed concern that the existing market rule language unfairly impacts auction participants who are subject to non-performance charges.

In response to this feedback, the IESO met with Enel X to discuss its concerns, and have since agreed that when read in the broader context of section 4 of Chapter 9, section 4.8 does not unfairly impact auction participants. The IESO explained how it has applied the provisions historically, and Enel X has communicated to the IESO that it is satisfied.

Comments from AEMA and AMPCO relate to the compensation treatment of demand response resources in the TCA. Both organizations provided feedback that energy payments provided to

¹ This section of the market rules pertains to compensation for demand response market participants that is recovered from market participants.

Filed: September 25, 2019, EB-2019-0002, Exhibit I, Tab 6.0, Schedule 13.35 AMPCO 35, Attachment 1, Page 5 of 14

generators without an equivalent revenue stream for demand response resources would "introduce undue and unjust discrimination against DR resources in the expanded auction program by requiring them to compete with generators prior to resolution of their eligibility for energy payments" (quoted from AMPCO's submission). AEMA and AMPCO contend that competition between DR resources and generators could be equalized by making energy payments to DR resources for in-market activations; energy payments would represent DR resource costs on activation. Subsequent to the stakeholder comment period, AEMA and AMPCO provided the IESO with a joint legal brief, further articulating their position, including concerns raised about the proposed implementation date of December 2019. That submission is included in the Board package.

The IESO has taken the position that the proposed Phase I market rules do not unjustly discriminate against DR resources. Phase I initiates a process that will allow more market participants to access a capacity auction, thereby increasing competition and providing the greatest value for ratepayers while meeting a growing reliability need.

The IESO recognizes that issues related to AEMA and AMPCO's position are contentious and complex and the IESO has not taken a formal position on the question as to whether making energy payments might result in a net benefit to ratepayers in a more mature capacity auction. In response to feedback received through the DRWG, the IESO has committed to conducting a broader stakeholder engagement on this question and will complete an in-depth assessment before deciding whether to recommend energy payments in the future.

The IESO has communicated the expectation that for the next few auction periods demand response resources are expected to be economically activated under very limited circumstances and therefore access to energy payments will not be consequential to their participation. The IESO has also communicated that it is important to begin taking steps to address forecasted capacity needs in a more cost-effective and transparent manner. The IESO has also engaged the DRWG in a proposal for cost recovery for out-of-market activations (such as test activations or emergency operating state control action activations. The IESO's intent is to implement this proposal concurrently with the TCA.

I recommend that the Board accept the majority vote and recommendation of the Technical Panel to approve market rule amendment MR-00439: Transitional Capacity Auction with an effective date of October 15, 2019. The details of the Technical Panel vote, and the rationale of each member given with their vote, is included with this package.

I look forward to discussing this item with you.



Michael Lyle

Enc

Cc: IESO Records

Market Rule Amendments: Transitional Capacity Auction

Presented by:

Leonard Kula, David Short, Jessica Savage,

August 28, 2018

Purpose and Overview

- **Purpose:** Recommendation for approval
 - Seeking Board approval of market rule amendments for the Transitional Capacity Auction (TCA):
 - Enables off-contract, non-regulated dispatchable generators to participate in the December 2019 capacity auction along with dispatchable loads and hourly demand response resources
 - Evolution of the Demand Response Auction into a more competitive capacity acquisition mechanism
 - Technical Panel vote of 11-1 to recommend TCA market rule amendments for IESO Board approval
- **Overview:**
 - Stakeholder Engagement
 - Stakeholder Comments on Energy Payments
 - IESO Position

Stakeholder Engagement

- IESO sought input on the TCA design and associated market rule amendments through a formal stakeholder engagement initiative
 - Five in-person meetings/webinars between March – June 2019 with multiple requests for written submissions followed by IESO responses
- Three meetings with Technical Panel; Technical Panel issued formal request for stakeholder comments on Jun 27 through to July 9
 - Three submissions to Technical Panel (AEMA, AMPCO, EnelX)
- AEMA and AMPCO submitted a legal brief to IESO staff on July 19, which reiterated their concerns about unjust discrimination as mentioned in their respective July 9 submissions to Technical Panel
 - AEMA and AMPCO indicated that they would like to make the legal brief public after having discussed timing at the IESO's convenience
 - It was IESO staff who asked AEMA and AMPCO to clarify if the brief should be provided to Technical Panel members in advance of the August 13 vote

Stakeholder Comments on Energy Payments

- AEMA and AMPCO assert that the TCA market rule amendments introduce undue and unjust discrimination against demand response (DR) resources by requiring them to compete with generators prior to resolution of DR resources eligibility for energy payments
 - AEMA/AMPCO seek to be paid a \$/MWh amount for each MW of reduced consumption
- The AEMA/AMPCO positions rely on the US Federal Energy Regulatory Commission (FERC) decision and order requiring energy payments for economic activation of DR where there is a net benefit of DR activation
 - FERC decisions are not binding on Canadian entities
- Energy payments were contemplated previously as part of the original DR Auction design discussions and were included in Demand Response Working Group (DRWG) 2017 work plan

Energy Payments (continued)

- In 2017, the IESO commissioned Navigant to prepare a discussion paper in order to facilitate an informed discussion on the topic
 - The Navigant paper concluded, in part, that the “arguments for and against *[energy]* payments are nuanced and prudent. Responsible stakeholders can arrive at different conclusions based on preferences for evaluation criteria” and that “Additional effort is required to estimate the quantum of the impacts”
- Stakeholder interest in energy payments was renewed as a result of TCA and the IESO committed to conduct a study to determine whether there is a net benefit to ratepayers if DR resources are compensated with energy payments for economic activations
 - Discussions at the April 13 Technical Panel meeting and the April 14 Stakeholder Advisory Committee meeting highlighted the need to engage a broad group of stakeholders, beyond the DRWG
 - August 22 announcement of comprehensive stakeholder engagement initiative on energy payments

IESO Position

- IESO position is that the proposed TCA market rules do not unjustly discriminate against DR resources
 - TCA initiates a process that will allow more market participants to access a capacity auction, thereby increasing competition and providing the greatest value for ratepayers while meeting a growing reliability need
- Access to energy payments for DR resources with a capacity obligation has not been material historically nor is it expected to be material under the TCA rules for the December 2019 auction
 - Economic activations of DR resources have been very limited to date, and we do not expect the likelihood of economic activation to increase appreciably in 2020
- Energy payments for DR is a complex issue and would be a substantive change to the energy market; the IESO has not taken a position as to whether these payments would result in a net benefit to ratepayers – further study is underway

Next steps/ Implementation

- Recommend that the Board accept the majority vote and recommendation of the Technical Panel to approve market rule amendment MR-00439: Transitional Capacity Auction
- Recommended effective date is October 15, 2019



Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R00		
Subject:	Transitional Capacity Auction		
Title:	Changes to Market Rule Definitions		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input checked="" type="checkbox"/> Deletion	<input checked="" type="checkbox"/> Addition
Chapter:	11	Appendix:	
Sections:	NA		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review and Comment	May 15, 2019
2.0	Draft for Technical Panel Review	June 18, 2019
3.0	Posted for Stakeholder Review and Comment	June 27, 2019
4.0	Submitted for Technical Panel Vote	August 6, 2019
5.0	Recommended by Technical Panel; Submitted to IESO Board	August 14, 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*.

Summary

The IESO proposes to amend the market rules to evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

The changes to Chapter 11 – Definitions outlined below are being made to clearly define key aspects of the Transitional Capacity Auction, differentiate from previous demand response programs, and to retire definitions that will no longer be in use.

Discussion

Most of the proposed changes to the market rules to enable the TCA are to add, change or delete defined terms. This approach was taken to minimize process changes for existing market participants. The proposed market rules for the TCA are based on newly defined terms with the 'capacity auction' prefix which encompasses both the existing DRA commitment period which ends on April 30, 2020 and the TCA, expected to commence in December, 2019. Because of the overlap of the two auction constructs, the new capacity auction definitions will cover both auctions.

Some 'demand response' definitions remain in the proposed ruleset because they are required to facilitate the existing DRA. It is anticipated that most of the remaining demand response definitions will be removed from the market rules after the DRA commitment period has concluded. This will be a further discussion in phase 2. In the same manner, some 'transitional capacity auction' definitions were added only to help facilitate the first TCA and may change in future phases. Managing any overlapping auction rules within the TCA will be a key consideration for the upcoming phases of change.

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. In response to feedback received, changes were made to the Capacity Auction Zonal Constraints, Capacity Auction Eligible Generation Resource and Qualified Capacity definitions. Additionally, the definition for Demand

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Response Direct Participant has been removed as that definition was used exclusively for the Capacity Based Demand Response Program.

All new defined terms are listed below, and fully defined in the next section.

Chapter 11

- New definitions
 - *auction capacity*
 - *auction period*
 - *availability window*
 - *capacity auction*
 - *capacity auction deposit*
 - *capacity auction eligible generation resource*
 - *capacity auction offer*
 - *capacity auction participant*
 - *capacity auction zonal constraints*
 - *capacity generation resource*
 - *capacity market participant*
 - *capacity obligation*
 - *capacity prudential support*
 - *capacity prudential support obligation*
 - *capacity transferee*
 - *capacity transferor*
 - *capacity zonal constraints*
 - *demand response resource*
 - *forward period*
 - *non-committed resource*
 - *obligation period*
 - *qualified capacity*
 - *target capacity*
 - *transitional capacity auction*
 - *transitional capacity auction clearing price*
 - *transitional capacity auction reference price*

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- Updated definitions
 - *capacity auction deposit*
 - *commitment period*
 - *demand response auction*
 - *demand response capacity*
 - *demand response contributor*
 - *demand response energy bid*
 - *demand response market participant*
 - *demand response prudential support*
 - *demand response prudential support obligation*
 - *demand response transferor*
 - *demand response transferee*
 - *hourly demand response*
- Deleted definitions
 - *capacity based demand response program*
 - *demand response aggregator*
 - *demand response auction clearing price*
 - *demand response auction offer*
 - *demand response capacity obligation*
 - *demand response direct participant*
 - *demand response pilot program*
 - *demand response security*
 - *demand response target capacity*
 - *demand response zonal constraints*

Specific changes to the definitions are listed below. There are five additional rule amendment packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT

Chapter 11

auction capacity means an amount in megawatts of electricity available to be provided to the IESO-controlled grid, by capacity market participants pursuant to obligations related to a capacity auction;

auction period means, with respect to a capacity auction, the length of time commencing with the opening of the window during which the IESO receives capacity auction offers, and finishing at the time at which the IESO publishes auction results;

availability window means the hours in an obligation period during which resources associated with capacity obligations are required to be available to provide auction capacity;

capacity auction means a transitional capacity auction or a demand response auction;

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

~~*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;~~

capacity auction eligible generation resource means a non-committed resource that is a generation facility, which is also a connected facility at the commencement of the capacity qualification process for a given capacity auction, and which is registered as dispatchable with the IESO from at least the time a capacity obligation is allocated to it;

capacity auction offer means an offer(s) from a capacity auction participant, in the form of a price-quantity pair(s), to provide auction capacity for an applicable obligation period, reflecting the amount of auction capacity that the capacity auction participant can reliably and responsibly provide if received as a capacity obligation, and which offer amount is no greater than the capacity auction participant's qualified capacity;

capacity auction participant means a person that is authorized to participate in a capacity auction;

capacity auction zonal constraints means the minimum or maximum amount of auction capacity that a capacity auction seeks to secure for a specific electrical zone as detailed by the IESO in each pre-auction report;

capacity generation resource means a capacity auction eligible generation resource with respect to which a capacity market participant has allocated a percentage of a capacity

obligation received in the given capacity auction in accordance with the applicable market manual;

capacity market participant means a capacity auction participant that has registered with the IESO as a capacity market participant, and who satisfies requirements contemplated in Chapter 7, section 18;

capacity obligation means the amount of auction capacity that a capacity market participant is required to provide during the availability windows of an obligation period;

capacity prudential support means the collateral provided by a market participant with a capacity obligation in accordance with the requirements contemplated in Chapter 2, section 5B;

capacity prudential support obligation means the dollar amount of collateral required as specified by the IESO as a condition of delivering on a capacity obligation;

capacity transferee means a capacity auction participant who is willing to accept all or a portion of a capacity obligation from a capacity transferor;

capacity transferor means a capacity auction participant who intends to transfer all or a portion of its capacity obligation received through a capacity auction to a capacity transferee;

commitment period means the length period of time for which a demand response market participant is required to fulfill its demand response each capacity auction over which it secures capacity. It consists of two obligation by making its demand response capacity available for dispatch through the day-ahead commitment process and energy market; periods;

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 thean auction operated by the IESO prior to December 31, 2018, to procureacquire demand response capacity, in accordance with section 18 of Chapter 7;

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 capacity means the expected quantity of auction capacity a dispatchable

~~load reduction or an hourly demand response resource can provide during a specified availability window and commitment obligation period for following a demand response capacity 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 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 market participant means a person who is a capacity market participant that participates only in the capacity based with a dispatchable load or an hourly demand response program, the demand response pilot program, or is a person with a demand response capacity obligation; resource;~~

~~demand response pilot program means a demonstration project, or projects for a demand response service referred to in section 16 of Chapter 7;~~

~~demand response prudential support means the collateral capacity prudential support provided by a capacity market participant in connection with a demand response capacity obligation auction;~~

~~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 received through a demand response auction;~~

~~demand response resource means, in a capacity auction, either an hourly demand response resource or a dispatchable load and with respect to which a capacity market participant has allocated a percentage of a capacity obligation received in the given capacity auction in accordance with the applicable market manual;~~

~~*demand response security* means the obligations owed to the IESO by a third party and other forms of security for the financial obligations of a demand response market participant, in the form set forth in section 5A of Chapter 2;~~

~~*demand response target capacity* means the amount of demand response capacity which the IESO seeks to clear through the demand response auction;~~

demand response transferor means a ~~*demand response capacity*~~ auction participant who intends to transfer all or a portion of its ~~*demand response capacity obligation*~~ received through a demand response auction to a demand response transferee;

demand response transferee means a ~~*demand response capacity*~~ auction participant who is willing to accept all or a portion of a ~~*demand response capacity obligation*~~ from a demand response transferor;

~~*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;~~

forward period means the period of time immediately following a capacity auction, to the commencement of an obligation period;

hourly demand response means the resource type described in section 19 of Chapter 7, that is a registered facility and used by the IESO as a delivery type, on an hourly basis, for a ~~*demand response capacity obligation*~~;

non-committed resource means a registered facility that is neither - in whole or in part - rate-regulated, contracted to the IESO, contracted to the OEFC, or obligated as a resource backed capacity export to another jurisdiction during the entire duration of a given obligation period;

obligation period means the period of time for which a capacity market participant is required to fulfill its capacity obligation through the day-ahead commitment process and energy market;

qualified capacity means a quantity in megawatts representing the maximum capacity auction offer that a capacity auction participant may provide for an applicable obligation period, and which corresponds to an amount submitted to the IESO by the capacity auction participant for qualification during the pre-qualification period of a relevant capacity auction;

target capacity means the amount of auction capacity which the IESO seeks to acquire through a capacity auction;

transitional capacity auction means an auction operated by the IESO after January 1, 2019 to acquire capacity, in accordance with section 18 of Chapter 7;

transitional capacity auction clearing price means the price at which a capacity auction

clears for an *obligation period* and will be quoted in \$/MW-day;

transitional capacity auction reference price represents the price at which resources would be incentivized to enter the market and recover the necessary costs to make their capacity available, recognizing their revenue opportunities and avoided costs in the *energy market*. The reference price is directly associated with the *target capacity* as another key reference point in the demand curve;

PART 5 – IESO BOARD DECISION RATIONALE

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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R01		
Subject:	Transitional Capacity Auction		
Title:	Participant Authorization and Facility Registration		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input checked="" type="checkbox"/> Deletion	<input checked="" type="checkbox"/> Addition
Chapter:	2, 7	Appendix:	
Sections:	Chapter 2, Sections 1.2, 2.1, 3.1, 5.1, 5B, 7.1, Chapter 2 – Appendices, Chapter 7, 2.5.4, 18.1-18.4, 19.1-19.3, 19.6 (new)		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review and Comment	May 15, 2019
2.0	Submitted for Technical Panel Review	June 18, 2019
3.0	Posted for Stakeholder Review and Comment	June 27, 2019
4.0	Submitted for Technical Panel Vote	August 6, 2019
5.0	Recommended by Technical Panel; Submitted to IESO Board	August 14, 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*.

Summary

The IESO proposes to amend the market rules to evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

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

This proposal also includes the prudential support framework for the TCA which is largely based on the DRA framework.

Discussion

Most additions in this rule amendment proposal are defined term changes, for instance changing demand response to capacity or commitment to obligation. Newly created terms such as capacity auction participant and capacity market participant are described and defined in the definitions package (MR-00439-R00).

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. No responses to feedback were received pertaining to this proposal.

More specifically, Sections 18.1 and 18.2 add some clarifications to existing language and Section 19.1 adds a generator as eligible to be a capacity auction participant that can secure a capacity obligation.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Section 19.6 is a new section that provides for the eligibility requirements for capacity generator resources.

Specific changes to the market rules are listed below. There are five additional rule amendment packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT

Chapter 2

1.2 Participation

- 1.2.2 No person shall 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* unless the *IESO* is satisfied:
- 1.2.2.1 on the basis of the certification, tests, and inspections referred to in section 6.2, that the person satisfies the technical requirements referred to in that section applicable to all *market participants*;
 - 1.2.2.2 that the person, if it applies to participate in the *real-time markets*, will either satisfy the *prudential support* requirements of Appendix 2.3 and any other financial requirements set forth in the *market rules* applicable to all *market participants* and the *IESO-administered market* in which the person wishes to participate, or in the case of a ~~*demand-response capacity*~~ *market participant*, satisfy the ~~*demand response security capacity prudential support*~~ requirements in section 5A5B;

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*;
- 2.1.1.8 [Intentionally left blank – section deleted]
- 2.1.1.9 *demand response market participants*; ~~and~~
- 2.1.1.10 ~~*demand response*~~ [Intentionally left blank – section deleted]
- 2.1.1.11 *capacity market participants*; and
- 2.1.1.12 *capacity* auction participants.

3. Application for Authorization

- 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*~~*capacity* *auction participant*, either:
 - a. the federal harmonized value-added tax system registration number issued to the applicant by the Canada Customs and Revenue Agency; or
 - b. 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.

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 capacity~~ market participant or ~~demand response capacity~~ auction participant with a ~~demand response~~-capacity obligation shall be subject only to the ~~demand response capacity~~ prudential support requirements in section 5B.

5B. ~~Demand Response Capacity~~ Prudential Requirements

5B.1 Purpose

- 5B.1.1 This section 5B sets forth the nature and amount of ~~demand response capacity~~ prudential support that must be provided by market participants that are either ~~demand response capacity~~ auction participants or ~~demand response capacity~~ market participants as a condition of delivering on a ~~demand response~~-capacity obligation, and the manner in which such market participants must provide and maintain ~~demand response capacity~~ prudential support on an on-going basis, in order to protect the IESO and market participants from payment defaults.

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 capacity~~ 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 capacity~~ 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 capacity~~ prudential support obligation.
- 5B.2.4 If ~~demand response capacity~~ 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 capacity~~ prudential support, the total ~~demand response capacity~~ prudential support held by the IESO in respect of that

market participant will be less than the market participant's ~~demand response capacity~~ 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 capacity~~ prudential support which will become effective no later than the expiry or termination of the existing collateral, such that the total ~~demand response capacity~~ prudential support provided is at least equal to the market participant's ~~demand response capacity~~ prudential support obligation.

5B.2.5 Where a market participant's ~~demand response capacity~~ 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 capacity~~ prudential support obligation, then within five business days, the market participant must provide to the IESO additional ~~demand response capacity~~ prudential support such that the total ~~demand response capacity~~ prudential support provided is at least equal to the market participant's ~~demand response capacity~~ 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 capacity~~ 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 capacity~~ prudential support such that the total ~~demand response capacity~~ prudential support provided is at least equal to the market participant's ~~demand response capacity~~ prudential support obligation.

5B.2.7 If the IESO draws upon part or all of a market participant's ~~demand response capacity~~ prudential support in accordance with section 6.3.3.2 of Chapter 3 and the remaining ~~demand response capacity~~ prudential support held by the IESO in respect of that market participant is less than the market participant's ~~demand response capacity~~ prudential support obligation, the market participant must, within five business days of receiving notice from the IESO, provide the IESO with additional ~~demand response capacity~~ prudential support such that the total ~~demand response capacity~~ prudential support provided is at least equal to the market participant's ~~demand response capacity~~ prudential support obligation.

5B.3 Calculation of ~~Demand Response Capacity~~ Prudential Support Obligations

5B.3.1 The IESO shall determine, in accordance with the applicable market manual, for each market participant, a ~~demand response capacity~~ prudential support obligation for each ~~commitment obligation~~ 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~~capacity prudential support obligation of each market participant as follows:

5B.3.2.1 prior to the start of each ~~commitment~~obligation 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~~capacity 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~~capacity 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~~capacity 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~~capacity prudential support that may be required as a result of an increase in the *market participant's* ~~demand-response~~capacity prudential support obligation that results from such change.

5B.4 Obligation to Provide ~~Demand-Response~~Capacity Prudential Support

5B.4.1 Each *market participant* must provide to the IESO and maintain ~~demand-response~~capacity prudential support, the value of which is at least equal to the *market participant's* ~~demand-response~~capacity prudential support obligation. The aggregate value of the ~~demand-response~~capacity prudential support shall be equal to the value of the undrawn or unclaimed amounts of ~~demand-response~~capacity prudential support provided by the *market participant*.

5B.4.2 A *market participant's* ~~demand-response~~capacity prudential support obligation must be met through the provision to the IESO and the maintenance of ~~demand-response~~capacity 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 capacity*~~ *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 capacity*~~ *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 capacity*~~ *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 capacity~~ *prudential support* referred to in section 5B.4.2.1 and shall establish for each such eligible ~~demand response capacity~~ *prudential support* provider, an aggregate limit of the ~~demand response capacity~~ *prudential support* that may be provided by that ~~demand response capacity~~ *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 capacity~~ *prudential support* from other eligible organizations that are still within their respective ~~demand response capacity~~ *prudential support* limits.

5B.4.5 In the event that the ~~demand response capacity~~ *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 capacity~~ *prudential support* held by the *IESO* and the ~~demand response capacity~~ *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 capacity~~ *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 capacity~~ *prudential support* in accordance with section 5B.4.2.1 shall be as follows:

5B.4.6.1 ~~demand response capacity~~ *prudential support* shall be obligations in writing;

5B.4.6.2 ~~demand response capacity~~ *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 capacity~~ *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 capacity*~~ *prudential support* provided by the *market participant*, include setting-off and applying any and all ~~*demand-response capacity*~~ *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 capacity*~~ *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 capacity*~~ *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 Capacity*~~ Prudential Support Obligations

5B.5.1 Subject to section 5B.5.2, the *IESO* may reduce the ~~*demand-response capacity*~~ *prudential support obligation* of a rated *market participant*, other than a *distributor*, 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 capacity*~~ *market participant*.

Credit Rating Category using Standard and Poor's Rating Terminology	Allowable Reduction in Prudential Support
AA- and above or equivalent	100% of the <i>demand-response capacity</i> <i>prudential</i>

	<i>support obligation</i> before allowable reductions
A-, A, A+ or equivalent	Greater of 90% of the demand-response capacity prudential support obligation before allowable reductions or \$37,500,000
BBB-, BBB, BBB+ or equivalent	Greater of 65% of the demand-response capacity prudential support obligation before allowable reductions or \$15,000,000
BB-, BB, BB+ or equivalent	Greater of 30% of the demand-response capacity prudential support obligation before allowable reductions or \$4,500,000
Below BB- or equivalent	0

5B.5.1A Subject to section 5B.5.2, the *IESO* may reduce the ~~demand-response~~capacity prudential support obligation of a rated distributor 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~~capacity market participant.

Credit Rating Category using Standard and Poor's Rating Terminology	Allowable Reduction in Prudential Support
AA- and above or equivalent	100% of the demand-response capacity prudential support obligation before allowable reductions
A-, A, A+ or equivalent	Greater of 95% of the demand-response capacity prudential support obligation before allowable reductions or \$45,000,000
BBB-, BBB, BBB+ or equivalent	Greater of 80% of the demand-response capacity prudential support obligation before allowable reductions or \$22,500,000
BB-, BB, BB+ or equivalent	Greater of 55% of the demand-response capacity prudential support obligation before allowable reductions or \$7,500,000
Below BB- or equivalent	0

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~~capacity prudential support obligation.

- 5B.5.3 Where a *market participant's demand-response capacity* 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 capacity* prudential support obligation in accordance with sections 5B.5.5 or 5B.5.5A 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 capacity* prudential support obligation of an unrated *market participant*, other than a *distributor*, by an amount equal to the monetary value prescribed, by the table below:

Good Payment History Categories for Non-Distributors	Allowable Reduction in Prudential Support
≥6 years	Lesser of 50% of the <i>demand-response capacity</i> prudential support obligation before allowable reductions or \$12,000,000
≥5 years, <6 years	Lesser of 30% of the <i>demand-response capacity</i> prudential support obligation before allowable reductions or \$7,500,000
≥4, <5 years	Lesser of 25% of the <i>demand-response capacity</i> prudential support obligation before allowable reductions or \$6,000,000
≥3, <4 years	Lesser of 20% of the <i>demand-response capacity</i> prudential support obligation before allowable reductions or \$4,500,000
≥2, <3 years	Lesser of 15% of the <i>demand-response capacity</i> prudential support obligation before allowable reductions or \$3,000,000
<2 years	0

- 5B.5.5A The *IESO* shall determine the dollar amount of any allowable reduction in the *demand-response capacity* prudential support obligation of an unrated *distributor* by an amount equal to the monetary value prescribed, by the table below:

Good Payment History Categories for Distributors	Allowable Reduction in Prudential Support
≥ 6 years	Lesser of 80% of the demand-response capacity prudential support obligation before allowable reductions or \$14,000,000
≥ 5 years, < 6 years	Lesser of 65% of the demand-response capacity prudential support obligation before allowable reductions or \$9,000,000
≥ 4 , < 5 years	Lesser of 45% of the demand-response capacity prudential support obligation before allowable reductions or \$7,500,000
≥ 3 , < 4 years	Lesser of 35% of the demand-response capacity prudential support obligation before allowable reductions or \$6,000,000
≥ 2 , < 3 years	Lesser of 25% of the demand-response capacity prudential support obligation before allowable reductions or \$4,500,000
< 2 years	0

5B.5.6 The following restrictions shall apply to the provision of reductions in a market participant's ~~demand-response~~capacity prudential support obligation as provided for under sections 5B.5.1, 5B.5.1A, and 5B.5.4:

5B.5.6.1 a market participant shall not be entitled to a reduction in its ~~demand-response~~capacity 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~~capacity prudential support obligation under section 5B.5.4; and

7. Payment Default Procedure

7.1.1 The events of default relating to payment and either prudential support, ~~demand-response security, or demand response or capacity~~ 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 2 - Appendices

1.3 Dispatch Workstations

1.3.1 Each market participant other than a boundary entity, ~~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~~ or a capacity auction participant with a 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*,

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

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 and capacity~~ prudential support, as applicable, equal to the proposed transferee's *prudential support obligation* ~~or demand response and capacity~~ 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* and/or ~~*demand response capacity*~~ *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.

18. ~~Demand Response Capacity~~ Auctions

18.1 Purpose of ~~Demand Response Capacity~~ Auctions

- 18.1.1 The ~~*demand response capacity auctions will acquire*~~ *will procure demand response* auction capacity through a competitive auction.
- 18.1.2 The *IESO* shall specify and *publish* a *target capacity* amount to be ~~*procured*~~*acquired* in each ~~*demand response capacity*~~ auction, as specified in the applicable *market manual*.

18.2 Participation in ~~Demand Response Capacity~~ Auctions

- 18.2.1 No person may participate in a ~~*demand response capacity*~~ 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 capacity*~~ auction participant in accordance with section 3 of Chapter 2; and in accordance with the applicable market manual;
- 18.2.1.2 submitted and ~~*has been approved by the*~~*received* *IESO approval for a qualified capacity*, 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 capacity*~~ auction is to be conducted, provided to the *IESO* a ~~*demand response capacity*~~ 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 capacity*~~ auction participant that is authorized by the *IESO* to participate only in a *capacity auction as an hourly demand response auction resource*:

18.2.2.1 Chapters 4, 5, and 6;

18.2.2.2 Chapter 7 other than this section 18; and

18.2.2.3 Chapters 8 and 10.

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

18.3 Calculation of ~~Demand-Response~~Capacity Auction Deposits

18.3.1 Upon receipt of a ~~demand-response auction participant's demand~~response~~qualified~~ capacity ~~underin accordance with~~ section 18.2.1.2, the IESO shall determine for each ~~demand-response~~capacity auction participant, a ~~demand-response~~capacity auction deposit for a ~~demand-response~~capacity auction as specified in the applicable market manual.

18.3.2 The IESO shall review the ~~demand-response~~capacity auction deposit of a ~~demand-response~~capacity transferee upon receipt of a request for a ~~demand-response~~capacity obligation transfer in accordance with section 18.9.1. As a result of a transfer request, the IESO may increase the ~~demand-response~~capacity auction deposit of a ~~demand-response~~capacity transferee and the IESO shall notify the ~~demand-response~~capacity transferee of any such increase.

18.3.3 Where the amount of a ~~demand-response~~capacity auction deposit provided by a ~~demand-response~~capacity auction participant exceeds the amount required by the IESO, the IESO shall return the excess amount to the ~~demand-response~~capacity auction participant within five business days of such a request from the ~~demand-response~~capacity auction participant. Otherwise, that amount shall be held by the IESO and shall form part of that ~~demand-response~~capacity auction participant's ~~demand-response~~capacity auction deposit for its participation in a subsequent ~~demand-response~~capacity auction.

18.4 ~~Demand-Response~~Capacity Auction Deposits

18.4.1 A ~~demand-response~~capacity 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~~capacity auction participant.

- 18.4.2 Where all or part of a ~~demand-response~~capacity 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~~by an officer of the *IESO* that a specified amount is owing by the ~~demand-response~~capacity 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~~capacity auction participant shall arrange for and deliver additional ~~demand-response~~capacity auction deposits if the ~~demand-response~~capacity auction participant intends to continue to participate in a ~~demand-response~~capacity auction. If such additional ~~demand-response~~capacity 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~~capacity auction deposit in the form of cash; and
 - 18.4.2.5 by including a letter of credit as part of a ~~demand-response~~capacity auction deposit, the ~~demand-response~~capacity 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~~capacity 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~~capacity 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.

- 18.4.4 In the event a ~~demand-response~~capacity auction participant has not satisfied the applicable eligibility requirements specified in sections 19.2~~and~~, 19.3, or 19.6 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~~capacity auction participant, shall, at the IESO's sole discretion, forfeit its ~~demand-response~~capacity auction deposit.

19. ~~Demand-Response~~ Capacity Market Participants with Demand-Response Capacity Obligations

19.1 Purpose

- 19.1.1 This section details the delivery of a ~~demand-response~~capacity obligation.
- 19.1.2 A ~~demand-response~~capacity market participant ~~who~~that receives a ~~demand-response~~capacity obligation shall deliver into the IESO-administered market via resources registered as one of the following resources:
- 19.1.2.1 hourly demand response;~~or~~
- 19.1.2.2 a dispatchable load;~~i~~
- 19.1.2.3 generator.
- 19.1.3 generator authorization types participating in a capacity auction must participate using capacity auction eligible generation resources.

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

- 19.2.1 A ~~demand-response~~capacity market participant is eligible to ~~participate as~~satisfy its capacity obligation with an hourly demand response resource provided that the ~~demand-response~~capacity 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;

- 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 capacity*~~ market participant shall not modify, vary or amend in any material respect any of the features or specifications of any ~~*resource facility*~~ 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* ~~and capacity 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 capacity*~~ 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 capacity*~~ 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 capacity*~~ 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 capacity*~~ 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 ~~Chapter~~ Chapters 5, ~~other than section 1.2.1 to 1.2.3, 2.3, 2.4, 5.6, 8, 10; and 5.9;~~
 - 19.2.4.3 Chapter 7 section 7; ~~and.~~
 - ~~19.2.4.4 Chapters 6, 8, 10.~~
- 19.2.5 A *wholesale consumer* that is a *non-dispatchable load* may participate as a *demand response contributor to* 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 capacity~~ market participant is eligible to ~~participate~~ satisfy its capacity obligation as a dispatchable load ~~in satisfying its demand response capacity obligation~~, provided that the ~~demand response capacity~~ market 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 registration requirements for wholesale consumers that are dispatchable loads. The ~~demand response capacity~~ 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 and capacity 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 capacity~~ 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 capacity~~ 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 capacity~~ 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.

19.6 Eligibility Requirements for Capacity Generation Resources

19.6.1 A capacity market participant is eligible to satisfy its capacity obligation as a capacity generation resource, provided that the capacity market participant:

- 19.6.1.1 demonstrates to the satisfaction of the IESO that it can provide the capacity obligation, as specified in the applicable market manual;
- 19.6.1.2 is authorized as a generator;
- 19.6.1.3 registers facilities in accordance with the registration requirements applicable to generation facilities. The capacity market participant shall not modify, vary or amend in any material respect any of the features or specifications of any facility without first requesting IESO authorization and approval in accordance with the applicable market manual;
- 19.6.1.4 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;
- 19.6.1.5 has provided prudential support and capacity prudential support in accordance with section 5 of Chapter 2.

PART 5 – IESO BOARD DECISION RATIONALE

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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R02		
Subject:	Transitional Capacity Auction		
Title:	Auction Parameters and Publication		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input checked="" type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	Ch. 7	Appendix:	
Sections:	Ch. 7, 18.5-18.8		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review and Comment	May 15, 2019
2.0	Submitted for Technical Panel Review and Comment	June 18, 2019
3.0	Posted for Stakeholder Review and Comment	June 27, 2019
4.0	Submitted for Technical Panel Vote	August 6, 2019
5.0	Recommended by Technical Panel; Submitted to IESO Board	August 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*.

Summary

The IESO proposes to amend the market rules to evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

The TCA will determine capacity obligations for the obligation periods and the auction clearing price for successful capacity auction participants. For each obligation period, the IESO will establish a demand curve, and the auction offers will be stacked against the demand curve to determine the capacity obligations that minimize total cost while respecting the parameters of the TCA.

Prior to each TCA, the IESO will establish and publish the demand curve parameters in a public, pre-auction report. The pre-auction report will also identify key milestones for participation and zonal constraints. The outcomes of the TCA will be included in both public reports available to the entire marketplace and private reports sent directly to capacity auction participants.

Discussion

Most additions in the rule amendment proposal are defined term changes. Section 18.5.2.4 has been removed as it is no longer required. In this section, the 'transitional capacity auction' defined terms are used to refer specifically to the first TCA to avoid confusion with the ongoing DRA.

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. No responses to feedback were received pertaining to this proposal.

Specific changes to the market rules are listed below. There are five additional rule amendment packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT

18.5 ~~Demand Response~~Transitional Capacity Auction Parameters

18.5.1 The IESO shall conduct ~~a demand response auction on an annual basis~~capacity auctions to ~~procure demand response~~acquire capacity for ~~a one-year period~~commitment periods. In each ~~demand response~~capacity auction the IESO shall ~~procure demand response~~acquire auction capacity for each ~~commitment~~obligation 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~~transitional capacity auction, including the following ~~demand response~~transitional capacity 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~~transitional capacity auction reference price;

18.5.2.3 a maximum and minimum ~~demand response~~transitional capacity auction clearing price;

18.5.2.4 ~~a minimum demand response capacity limit that a demand response auction shall clear; [Intentionally left blank – section deleted]~~

18.5.2.5 a maximum ~~demand response~~capacity limit at the maximum ~~demand response~~transitional capacity auction clearing price that a ~~demand response~~transitional capacity auction shall clear; and

18.5.2.6 a maximum ~~demand response capacity limit that a demand response auction~~ capacity limit that a transitional capacity auction shall clear.

18.5.3 The IESO shall define ~~demand response~~capacity auction zonal constraints for each ~~demand response~~transitional capacity 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~~capacity auction:

- 18.5.4.1 the deadline to submit the amount of ~~demand-response~~qualified capacity the ~~demand-response~~capacity auction participant is willing to provide pursuant to section 18.2.1.2;
- 18.5.4.2 the deadline for a ~~demand-response~~capacity auction participant to submit a ~~demand-response~~capacity auction deposit in accordance with section 18.2.1.3;
- 18.5.4.3 the dates in which a ~~demand-response~~capacity auction participant may submit ~~demand-response~~transitional capacity auction offers for a ~~demand-response~~capacity auction;
- 18.5.4.4 the period over which the IESO shall conduct the ~~demand-response~~transitional capacity auction; and
- 18.5.4.5 the date of ~~demand-response~~transitional capacity auction post-auction reporting in accordance with sections 18.8.1 and 18.8.2.

18.6 ~~Demand-Response~~Capacity Auction Offers

- 18.6.1 A ~~demand-response~~capacity auction offer:
 - 18.6.1.1 may be submitted or revised by the ~~demand-response~~capacity 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~~obligation periods for which a ~~demand-response~~capacity auction participant has submitted a ~~demand-response~~capacity 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~~capacity auction offer shall only be submitted in respect of a given ~~demand-response~~capacity auction if:
 - 18.6.2.1 the ~~demand-response~~capacity auction participant complies with the ~~demand-response~~capacity auction ~~participation~~participant requirements in section 18.2.1; and
 - 18.6.2.2 the ~~demand-response~~capacity auction participant has not been disqualified from full or partial participation in the ~~demand-response~~capacity auction ~~in accordance with section, pursuant to sections~~ 19.4.8, 19.5.4 ~~and the applicable market manual, or~~ 19.6.4.

- 18.6.3 A ~~demand-response~~capacity auction offer may include up to twenty price-quantity pairs for each ~~commitment~~obligation period and shall comply with the following:
- 18.6.3.1 the ~~demand-response~~capacity auction offer shall be for and applicable over an entire ~~commitment~~obligation period associated with a ~~demand-response~~capacity auction;
- 18.6.3.2 the ~~demand-response~~ capacity 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~~obligation period associated with that ~~demand-response~~transitional capacity auction;
 - be greater than or equal to \$0.00/MW-day;
 - not exceed the applicable maximum ~~demand-response~~transitional capacity auction clearing price; and
 - increase as the associated ~~demand-response~~capacity auction offer quantity increases.
- 18.6.3.3 the ~~demand-response~~capacity 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~~capacity auction participant is willing to provide in accordance with section 18.2.1.2; and
- 18.6.3.4 the ~~demand-response~~ capacity auction offer shall indicate whether the ~~demand-response~~ capacity auction participant is willing to clear an capacity 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 Transitional Capacity Auction Clearing Prices and Quantities**

- 18.7.1 The IESO shall determine a ~~demand-response~~transitional capacity auction demand curve to be utilized for each ~~commitment~~obligation period in an auction

- year, based upon the ~~demand-response~~transitional capacity auction 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~~transitional capacity auction, determine for each ~~commitment~~obligation period the ~~demand-response~~transitional capacity auction clearing price in accordance with the applicable *market manual*.
- 18.7.3 The *IESO* shall, in each ~~demand-response~~transitional capacity auction, determine for each ~~commitment~~obligation period the ~~demand-response~~capacity obligation for each ~~demand-response~~capacity 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~~transitional capacity auction, determine for each ~~commitment~~obligation period associated with the ~~demand-response~~transitional capacity auction:
- 18.7.4.1 the ~~demand-response~~transitional capacity 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~~capacity auction participant, in accordance with this section 18.7.
- ~~in accordance with this section 18.7.~~
- 18.7.5 If two or more ~~demand-response~~capacity auction participants submit a ~~demand-response~~capacity auction offer at the same price, for the last available quantity, the ~~demand-response~~capacity auction offer with the earlier time stamp shall be selected as the successful ~~demand-response~~capacity 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~~capacity auction, *publish* the following in accordance with the applicable *market manual*:
- 18.8.1.1 the ~~demand-response~~transitional capacity auction clearing price;
- 18.8.1.2 the amount of ~~demand-response~~capacity that has been ~~procured~~acquired; in each electrical zone;

18.8.1.3 those ~~demand-response-capacity~~ auction participants who received a ~~demand-response-capacity obligation~~ and all respective ~~demand-response-capacity obligations~~; and

18.8.1.4 the qualified ~~demand-response~~auction capacity of each ~~demand-response~~capacity auction participant.

18.8.2 The IESO shall, following the conclusion of a ~~demand-response~~capacity auction, issue post-auction reports to each ~~demand-response~~capacity auction participant by the date specified in the pre-auction report, to detail the ~~demand-response~~ capacity auction offers that have cleared in the ~~demand-response~~capacity auction and the associated ~~demand-response-capacity obligations~~ for each ~~commitment~~obligation period in accordance with the applicable market manual.

PART 5 – IESO BOARD DECISION RATIONALE

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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R03		
Subject:	Transitional Capacity Auction		
Title:	Energy Market Participation		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input type="checkbox"/> Deletion	<input checked="" type="checkbox"/> Addition
Chapter:	3, 7	Appendix:	
Sections:	Chapter 3 – 6.3, 6.3A, & 6.5, Chapter 7 - 3.4, 18.9, 19.4, 19.5, 19.7 (new)		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review and Comment	May 15, 2019
2.0	Submitted for Technical Panel Review and Comment	June 18, 2019
3.0	Posted for Stakeholder Review and Comment	June 27, 2019
4.0	Submitted for Technical Panel Vote	August 6, 2019
5.0	Recommended by Technical Panel; Submitted to IESO Board	August 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*.

Summary

The IESO proposes to amend the market rules to evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

Capacity market participants with a capacity obligation will be required to deliver on their capacity obligation through participation in the energy market as an hourly demand resource, dispatchable load or non-committed generator. These resource types will be required to submit offers into the energy market (day-ahead and real-time) for every hour of the availability window.

Discussion

Minor changes have been proposed to Chapter 3 to reflect changes to defined terms and to show the shift from demand response programs to the Transitional Capacity Auction.

Significant changes have been proposed for Chapter 7. Defined terms have been updated to show the shift from demand response programs to the Transitional Capacity Auction. New sections have been added in Section 18.9 to further describe qualified capacity, and to provide more clarification on the transfer of auction capacity. Section 19.7 - Energy Market Participation for Capacity Generation Resources has been added. This section outlines the requirements for Market Participants with Capacity Generation Resources to participate in the energy market.

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. In response to stakeholder feedback, this proposal contains a new section, 18.9.1.5C to allow a transfer of a capacity obligation between zones where the same capacity market participant is both the capacity transferor and the capacity transferee. Additionally, stakeholders noted an incorrect reference in sections 19.7.8 and 19.7.10 which has been corrected in this version.

Specific changes to the market rules are listed below. There are five additional rule amendment

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT

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, ~~demand response security, or demand response~~ or capacity 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, ~~demand response security, or demand response~~ or capacity prudential support;
 - 6.3.1.3 fails to provide and maintain prudential support, ~~demand response security, or demand response~~ capacity 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, ~~demand response security, or demand response~~ or capacity prudential support provider.
- 6.3.3 Where a *market participant* or a person providing prudential support, ~~demand response security, or demand response~~ or capacity 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*, ~~demand response security, or demand response~~ or capacity *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*, ~~demand response security, or demand response~~ or capacity *prudential support* is due to expire or terminate and has not been replaced as required under section 5.2.5, 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*, ~~demand response security, or demand response~~ capacity *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*.

6.3A Suspension of a Market Participant

- 6.3A.2 The *IESO* shall *publish* the details of the *suspension order* and provide a copy of the *suspension order* to the *OEB* and the *transmitter, distributor and/or* other *market participant* to whose *facilities* the suspended *market participant* is connected.
- 6.3A.4 The *IESO* may do one or more of the following to give effect to a *suspension order*:
 - 6.3A.4.1 reject any *bid, offer, TR bid* or *TR offer* submitted by the *suspended market participant*;
 - 6.3A.4.2 set-off any amounts otherwise due to the *suspended market participant* against any amounts owed by the *suspended market participant* under the *market rules*;
 - 6.3A.4.3 issue a *disconnection order* to the *transmitter, distributor and/or* other *market participant* to whose *facilities* the *suspended market participant's facilities* are connected and provide a copy to the *OEB*; or

6.3A.4.4 make such further order or issue such directions to the *suspended market participant* as the *IESO* determines appropriate.

6.4.2 The *IESO* shall *publish* the details of the *termination order* and provide a copy of the *termination order* to the *OEB* and to the *transmitter, distributor and/or other market participant* to whose *facilities* the *terminated market participant's facilities* are connected.

6.4.3 When the *IESO* issues a *termination order*, it may at the same time, if it has not already done so, issue a *disconnection order* to the *transmitter, distributor and/or other market participant* to whose *facilities* the *terminated market participant's facilities* are connected and provide a copy to the *OEB*.

6.5 De-Registration of a Market Participant's Facilities

6.5.3 If the *IESO* deregisters some or all of a *market participant's registered facilities*, it may at the same time issue a *disconnection order* to the relevant *transmitter, distributor and/or other market participant* to whose *facilities* the *market participant's facilities* which is subject of the deregistration are connected and provide a copy to the *OEB*.

Chapter 7

3.4 The Form of Dispatch Data

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~~obligation period in accordance with the applicable market manual.

18.9 ~~Demand Response~~ Capacity Obligation Transfers

18.9.1 A ~~demand response~~capacity *transferor* may, subject to *IESO* approval and in accordance with the applicable *market manual*, request a transfer of all or a portion of its ~~demand response~~capacity *obligation* to a ~~demand response~~capacity *transferee* provided that the following criteria are met:

18.9.1.1 the quantity to be transferred does not exceed the difference between the ~~demand response~~capacity *transferee's* qualified ~~demand response~~capacity, and its existing ~~demand response~~capacity *obligation* for the applicable ~~commitment~~obligation *period*;

- 18.9.1.1.1 for the purposes of 18.9.1.1, the *qualified capacity* refers to the *qualified capacity* received by the *capacity transferee* in the *obligation period* for which the *quantity* is being transferred.
- 18.9.1.2 the ~~*demand-response capacity*~~ transferor provides written confirmation to the *IESO* from the ~~*demand-response capacity*~~ transferee of its willingness to accept the transfer of a ~~*demand-response capacity*~~ obligation from the ~~*demand-response capacity*~~ transferor;
- 18.9.1.3 the *capacity obligation* transfer shall consist of the same attributes (e.g. *physical or virtual*) and be of the same *resource type*, as detailed in the applicable *market manual*, as the ~~*demand-response capacity*~~ transferor's ~~*demand-response capacity*~~ obligation; ~~and~~
- 18.9.1.4 the quantity to be transferred is in increments of 0.1MW, and the resulting ~~*demand-response capacity*~~ obligations for both the ~~*demand-response capacity*~~ transferor and ~~*demand-response capacity*~~ transferee following the transfer shall be 0 MW, or greater than or equal to 1 MW;
- 18.9.1.5 the *capacity obligation* to be transferred is within the same zone;
- 18.9.1.6 if the *capacity obligation* was acquired through a *transitional capacity auction*, the *capacity obligation* may be transferred between zones where the *transitional capacity auction clearing prices* in the two respective zones are equal to the *Ontario-wide transitional capacity auction clearing price*;
- 18.9.1.7 For the purposes of 18.9.1.6, the *capacity transferor* and the *capacity transferee* may be the same *capacity auction participant*;
- 18.9.1.8 *capacity obligation* transfers must not result in the receiving zone reaching a *capacity auction zonal constraint*.
- 18.9.2 For each transfer request that satisfies the criteria in section 18.9.1, the *IESO* shall determine the ~~*demand-response capacity*~~ transferee's revised ~~*demand-response capacity*~~ auction deposit and/or ~~*demand-response capacity*~~ prudential support obligation, as applicable, in accordance with section 18.3.2 and section 5B.3.3 of Chapter 2.
- 18.9.3 The ~~*demand-response capacity*~~ transferee shall provide the *IESO*, within five business days of receiving notification from the *IESO* or within such a longer period of time as may be agreed between the *IESO* and the ~~*demand-response capacity*~~ transferee, any additional ~~*demand-response capacity*~~ auction deposit and/or ~~*demand-response capacity*~~ prudential support obligation that may be required as a result of a transfer request.

- 18.9.4 After the revised ~~demand-response~~capacity auction deposits and/or ~~demand-response~~capacity prudential support obligations have been satisfied by the ~~demand-response~~capacity transferee, the IESO shall notify the ~~demand-response~~capacity transferor and ~~demand-response~~capacity transferee of its approval or rejection, and the IESO shall publish updated post-auction reports pursuant to section 18.8.

19.4 Energy Market Participation for Hourly Demand Response Resources

- 19.4.1 A ~~demand-response~~capacity 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, or if the applicable pre-dispatch shadow price for an hourly demand response resource is equal to or greater than the standby notice price threshold, determined by the IESO, for at least one hour during the dispatch day availability window, the IESO shall issue a standby notice to the applicable ~~demand-response~~capacity 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~~capacity market participant by 07:00 EST, the ~~demand-response~~capacity market participant shall remove their bids for the hourly demand response resource as soon as practicable and before 9:00 EST. A ~~demand-response~~capacity 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~~capacity 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~~capacity 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 one hour during the dispatch day availability window.
- 19.4.5 If a ~~demand-response~~capacity market participant receives an activation notice pursuant to section 19.4.4, the ~~demand-response~~capacity 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 capacity~~ market participant shall notify the IESO as soon as practicable.

- 19.4.6 A ~~demand-response capacity~~ 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 capacity~~ market participant does not comply with an activation notice pursuant to this section 19, in accordance with the applicable market manual. The ~~demand-response capacity~~ market participant may also be subject to compliance actions in accordance with section 6 of Chapter 3.
- 19.4.7 A ~~demand-response capacity~~ 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 capacity~~ auction any ~~demand-response capacity~~ market participant's ~~hourly demand response resource participant~~ 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-In the event of a material reduction in the demand response capacity of an hourly demand response resource, associated with a capacity obligation acquired through a transitional capacity auction, the capacity market participant shall submit non-performance events, provided that the demand-response market participant notifies~~ notify the IESO as per the procedures and criteria specified in the applicable market manual.
- 19.4.9A In the event of a material reduction in the demand response capacity of an hourly demand response resource, associated with a capacity obligation acquired through a demand response auction, the demand response market participant shall notify the IESO as per the procedures and criteria specified in the applicable market manual.
- 19.4.10 A ~~demand-response capacity~~ 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~~ related to an hourly demand response resource in an obligation 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~~capacity 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~~ obligation period to verify that a ~~demand-response~~-capacity obligation is deliverable by the ~~demand-response~~capacity market participant.
- 19.4.12 If a ~~demand-response~~capacity market participant fails activation testing performed pursuant to section 19.4.11, the ~~demand-response~~capacity 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~~capacity market participant day-ahead notification of test activations pursuant to 19.4.11 and the test activation shall occur within the availability window of a ~~commitment~~an obligation 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~~capacity 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~~transitional capacity auction any ~~dispatchable-load-facility~~capacity

market participant 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 obligation~~ *period* to verify that a ~~demand response~~ *capacity obligation* is deliverable by the ~~demand response~~ *capacity* market participant.
- 19.5.8 If a ~~demand response~~ *capacity* market participant fails activation testing performed pursuant to section 19.5.7, the ~~demand response~~ *capacity* 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~~ *an obligation* *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~~ *an obligation* *period* pursuant to this section 19.5.

19.7 Energy Market Participation for Capacity Generation Resources

- 19.7.1 A capacity market participant satisfying its capacity obligation with a capacity generation resource shall be eligible for an availability payment, in

accordance with this section and 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

19.7.2 The IESO shall schedule a capacity generation resource in the energy market, and issue dispatch instructions in accordance with Chapter 7.

19.7.3 A capacity generation resource shall comply with IESO dispatch instructions in accordance with Chapter 7.

19.7.4 The IESO may disqualify from future participation in the transitional capacity auction any capacity market participant that fails to inject energy when called upon in accordance with this section 19.

Outage Notification Requirements for Capacity Generation Resource with a Capacity Obligation

19.7.5 Each capacity generation resource shall comply with the outage notification requirements of Chapter 5.

19.7.6 A capacity generation resource shall reduce its offer to reflect the maximum capacity that it reasonably expects it can inject due to any outage.

Activation Testing for Generation Resources

19.7.7 The IESO may, in accordance with the applicable market manual, direct a capacity market participant to perform activation testing for each capacity generation resource up to a maximum of two activation tests per obligation period to verify that a capacity obligation can be satisfied by the capacity market participant.

19.7.8 If a capacity market participant fails an activation test performed pursuant to section 19.7.7, the capacity 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.

19.7.9 The IESO shall provide a capacity generation resource day-ahead notification of test activation and the test activation shall occur within the availability window of an obligation period.

19.7.10 The test activation shall occur in accordance with the dispatch instructions specified in this section 19.7.

PART 5 – IESO BOARD DECISION RATIONALE

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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R04		
Subject:	Transitional Capacity Auction		
Title:	Non-Performance Charges and Settlements		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input checked="" type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	Ch. 9	Appendix:	
Sections:	4.7J, 4.8		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review and Comment	May 15, 2019
2.0	Submitted for Technical Panel Review	June 12, 2019
3.0	Posted for Stakeholder Review and Comment	June 27, 2019
4.0	Submitted for Technical Panel Vote	August 6, 2019
5.0	Recommended by Technical Panel; Submitted to IESO Board	August 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*.

Summary

The IESO proposes to amend the market rules to evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

The following proposed rule changes evolve the settlement processes of the DRA into the TCA.

Discussion

Minor changes have been proposed to reflect changes to defined terms and to show the shift from demand response programs to the Transitional Capacity Auction.

A new sub-section was added (4.7J.2.1) to make a capacity market participant with a capacity generation resource subject to availability payments.

Lastly, sub-sections were removed from 4.8.3 and 4.8.4 to remove references to the CBDR and the former DR Pilots program which no longer exist.

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. No responses to feedback were received pertaining to this proposal.

Specific changes to the market rules are listed below. There are five additional rule amendment packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT

Chapter 9

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~~ *capacity market participant*, in the manner specified in the applicable *market manual*.

4.7J.2 A ~~demand response~~ *capacity 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~~ *capacity market participant* does not satisfy the requirements of its ~~demand response~~ *capacity obligation*:

~~Demand Response~~ Capacity Obligation- Availability Charges

4.7J.2.1 A ~~demand response~~ *capacity 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*.

4.7J.2.1A A capacity market participant participating with a capacity generation resource shall be subject to an availability charge for every hour of the availability window in which it fails to submit energy offers in the amount of their capacity obligation in the day-ahead commitment process or in the pre-dispatch hour specified in Market Manual 5.5

~~Demand Response~~ Capacity Obligation Dispatch Charges

4.7J.2.2 A ~~demand response~~ *capacity 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~~ Capacity Obligation Administration Charges

4.7J.2.3 A ~~demand response~~ *capacity 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 Obligation-Capacity Charges

- 4.7J.2.4 Subject to ~~sections~~section 19.4.5 ~~and 19.4.12~~ of Chapter 7, a ~~demand response capacity~~ market participant participating with an hourly demand response resource that fails to ~~provide~~satisfy its capacity ~~through obligation in response to~~ an activation ~~notice or activation~~ test, shall be subject to a ~~demand response capacity~~ charge.
- 4.7J.2.5 Subject to section ~~19.5.83~~ of Chapter 7, a ~~demand response capacity~~ market participant participating with a ~~either a dispatchable load or a capacity generation resource~~ that fails to ~~provide~~satisfy its capacity ~~through obligation in response to~~ an activation test shall be subject to a ~~demand response capacity~~ charge.
- 4.7J.3 A ~~demand response capacity~~ market participant or a ~~demand response capacity~~ 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~~an obligation period.
- 4.7J.4 At any time, the IESO may audit any submitted ~~demand response~~ measurement data and supporting information and a ~~demand response capacity~~ 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 capacity~~ market participant any resulting over or under payment, as applicable. Any amounts recovered or distributed to a ~~demand response capacity~~ market participant shall be distributed to or recovered from market participants in accordance with sections 4.8.3 and 4.8.4.

4.8 Additional Non-Hourly Settlement Amounts

- 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 ~~[Intentionally left blank – section deleted] any compensation for demand response market participants paid in that energy market billing period by the IESO pursuant to section 4.7H;~~
- 4.8.3.2 ~~[Intentionally left blank – section deleted] 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 capacity~~ 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 ~~[Intentionally left blank – section deleted]any adjustments to demand response market participant payments pursuant to section 4.7H;~~
- 4.8.4.2 ~~[Intentionally left blank – section deleted]any adjustments to demand response market participant payments pursuant to section 4.7I; and~~
- 4.8.4.3 any adjustments to ~~demand~~capacity ~~response~~-market participant payments pursuant to section 4.7J.

PART 5 – IESO BOARD DECISION RATIONALE

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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R05		
Subject:	Transitional Capacity Auction		
Title:	Removal of DR Pilots and CBDR Sections		
Nature of Proposal:	<input type="checkbox"/> Alteration	<input checked="" type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	Ch. 2, 7, 9	Appendix:	
Sections:	Ch. 2 (section 5A, Appendix 2.2), 7 (sections 16, 17), Ch. 9 (section 4)		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review and Comment	May 15, 2019
2.0	Submitted for Technical Panel Review	June 18, 2019
3.0	Posted for Stakeholder Review and Comment	June 27, 2019
4.0	Submitted for Technical Panel Vote	August 6, 2019
5.0	Recommended by Technical Panel; Submitted to IESO Board	August 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*.

Summary

The IESO proposes to amend the market rules to evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

While reviewing the market rules for TCA Phase 1 changes, there were sections of the rules that were no longer necessary to keep, relating to the Capacity Based Demand Response (CBDR) program, and the former Demand Response Pilots program. The sections in this package, detail the sections of the market rules that will be removed as part of this clean-up effort.

Discussion

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. No responses to feedback were received pertaining to this proposal.

Each section listed below will be deleted or changed, to remove references to the former Demand Response Pilots program and CBDR. Specific changes to the market rules are listed below. There are five additional rule amendment packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT

Chapter 2

5A. Capacity Based Demand Response Program – Demand Response Security Requirements

- All sub-sections to be removed

Chapter 2 - Appendices

Appendix 2.2

~~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.~~

~~1.1.6A [Intentionally left blank – section deleted]~~

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

16. Demand Response Pilot Program

All sections to be removed

17. Capacity Based Demand Response Program

All sections to be removed

Chapter 9

4.7H Capacity Based Demand Response Program

- All sub-sections to be removed

4.7I Demand Response Pilot Program

- All sub-sections to be removed

PART 5 – IESO BOARD DECISION RATIONALE

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Resolution of the
IESO Board of Directors

Independent Electricity System Operator

August 28, 2019

**In Respect to a Recommendation from the Technical Panel on Market Rule
Amendments**

CONCERNING MR-00439-R00: Transitional Capacity Auction

WHEREAS The IESO identified a reliability need to evolve the demand response auction into a more competitive capacity acquisition mechanism that will enable non-committed dispatchable generators to participate in a transitional capacity auction (TCA) alongside dispatchable loads and hourly demand response resources.

WHEREAS The IESO engaged with stakeholders through a formal stakeholder engagement initiative and incorporated several comments into the design and direction of the TCA.

WHEREAS The Technical Panel voted by a 11-1 majority vote to recommend MR-00438-R00 for approval by the IESO Board.

BE IT RESOLVED THAT the Board accept the majority vote and recommendation of the Technical Panel to adopt MR-00439-R00, with an effective date of October 15, 2019.

Technical Panel – Rationale

Proposed Rule Amendments –Transitional Capacity Auction, Phase 1

On August 13, 2019, the Technical Panel voted in favour of recommending the following draft market rule amendments for consideration by the IESO Board.

Re: MR-00439-R00-R05: Transitional Capacity Auction, Phase 1

The following is the TP member vote with supporting rationale:

In favour: Robert Bieler, Ron Collins, Sarah Griffiths, Robert Lake, Phil Lasek, Robert Reinmuller, Sushil Samant, Joe Saunders, Jessica Savage, Vlad Urukov, Julien Wu

Opposed: David Forsyth

TP Member	Rationale to Support Vote
Bieler, Robert Representing: Consumers	The amendments as reviewed by the Technical Panel have been offered for stakeholder input and in my view the language reflects the intent of the policy approach for the Transitional Capacity Auction. I believe that implementing the capacity auction will provide greater competitiveness in the market and therefore benefits to consumers. While this approach may not be preferred by all stakeholders, this is transitional by definition and as such will evolve over time. There will be future opportunities to amend the Market Rules to address additional concerns should they arise.
Collins, Ron Representing: Energy Related Businesses and Services	I support the Market Rule amendments proposed by the IESO staff for the Transitional Capacity Auction. The proposed Market Rule amendments support the development of a capacity market to address future resource adequacy and increase flexibility in the IESO-administered market. Such amendments will encourage broader competition for establishment of capacity in a transparent and cost-effective manner.

<p>Forsyth, David</p> <p>Representing: Market Participant Consumers</p>	<p>I voted against the TCA proposed rules based on the fact that in my opinion the TCA design is fundamentally flawed without including the energy payment element for loads, and therefore discriminates against some market participants. I believe this violates the Electricity Act. The basis for this opinion is included in the joint submission from AMPCO and AEMA.</p>
<p>Griffiths, Sarah</p> <p>Representing: Other Market Participants</p>	<p>I voted today to approve the MRA for the Transition Capacity Auction as I have long advocated for markets and competition for the IESO to meet the capacity needs. However, without resolving how demand response resources are compensated for the value they provide to the IESO is an issue, and undermines the competition in this auction. Many DR Market Participants do not agree with the approval of the MR and asked me to vote against or abstain, and DR participants continue to ask the IESO to postpone the first Auction at least 6 months until this issue is resolved. Both AEMA and AMPCO have provided a legal brief to IESO staff that outlines how a TCA without resolving issues regarding just and reasonable compensation to DR resources is discriminatory.</p> <p>My vote is based on the acknowledgement that the IESO staff have outlined, at the DRWG, a path forward and that they continue to engage with market participants/interested parties on this topic. The DR resource is a valuable resource to the overall electricity system but it needs to be treated in a comparable manner to ensure the ratepayer and the system receive its true value.</p>
<p>Lake, Robert</p> <p>Representing: Residential Consumers</p>	<p>Representing consumers, I want our electricity system to develop into one where we have what economists call pure competition. If we would have had numerous suppliers competing at the time of deregulation we probably would have a competitive, mature electricity market today, like Sweden and Norway. While we might not initially get all details perfectly correct with this proposal, there will be accommodation to make changes in the future, after we have had some experience with TCA. This is one good step towards developing an efficient, competitive electricity market.</p>
<p>Lasek, Phil</p> <p>Representing: Market Participant Consumers</p>	<p>Generally supported the shift to a different program, adding that it might not be optimal but was still in the interest of power consumers.</p>

<p>Reinmuller, Robert</p> <p>Representing: Transmitters</p>	<p>I reviewed the comments provided and while feedback on behalf of DR participants has points that will need consideration, it was clear in the IESO plans that the DRA will evolve into the TCA and therefore due consideration will be made while finalizing the ultimate construct.</p> <p>In an attempt to ensure the system is adequately prepared to meet future needs continued progress has to be made now and consideration for DR will have to be integrated as we develop the ultimate market construct. DR resources that are traditional load customers have been connected to the grid on the basis of their electricity needs at the time and as such, transmission, distribution and generation infrastructure was developed to meet their demand over a number of years. In most cases investments in the system are amortized and recovered through rates over a long period of time. When we discuss DR and equivalency with generation a more in-depth study needs to be undertaken to fully understand how existing upstream infrastructure investments (generation and system) are affected by DR. The current market takes into account the system needs and provides multiple quantifiable ways to fulfill capacity and energy requirements. As we transform to better integrate DR, DER, storage, load displacement etc., we must ensure that we can guarantee the long term viability of the solution, while quantifying the exact value of each resource in the overall context of the system need. Critical elements like voltage control, frequency control, phase angle, inertia, response time, etc. will need to be reviewed along with regulating local load quantities. As AMPCO indicated, a “reliable and affordable energy supply is critical” and we can only achieve that goal with thoroughly quantifying the value proposition of all critical resources included in the TCA.</p> <p>I trust that IESO will follow through with including DR and other existing and new resources into the ultimate TCA construct. This is why I vote yes to recommend sending the TCA MR amendments to the IESO BOD for consideration.</p>
<p>Samant, Sushil</p> <p>Representing: Market Participant Generators</p>	<ul style="list-style-type: none"> • The immediate implementation of the TCA will assist the IESO in its goal of Reliability • Increased competition in the TCA will put downward pressure on the capacity auction clearing prices, which is of interest to Ratepayers • The MRAs associated with the TCA have been thoroughly discussed and comments received at the appropriate Stakeholder Engagement(s) <ul style="list-style-type: none"> ○ The IESO is in the process of making changes for the use of Utilization Payments for out-of-market activations for Hourly Demand Resources (HDR).

	<ul style="list-style-type: none"> ○ The IESO has agreed to further stakeholder the use of Utilization Payments for in-market or economic activations of all Demand Response (DR) resources. ○ The issue concerning compensation to DR resources for economic activations is a wider market issue that would require years of stakeholdering and has implications for the entire design of the Ontario's electricity market (energy and capacity). As a result, it is not worth holding up this worthy TCA initiative for an issue that will most likely end up having little relevance or merit after further study (see my note below). ○ Furthermore, there has been a non-material amount of economic activations of DR resources in the past. It is anticipated that this will continue into the near future. This weakens the argument that the TCA initiative is flawed. <ul style="list-style-type: none"> • As a result, I feel that the MRAs reflect the intent of the design as contemplated in the Stakeholder Engagement(s) • The MRAs are a proper fit with other Market Rules <p><i>Note:</i></p> <p>The legal brief submitted by AMPCO/AEMA and made public by the IESO on August 12, 2019 further solidified my decision to vote in favour. This is because its main argument for delaying the TCA so that the IESO could address the issue of compensation to DR resources seemed to rely on Item 33 (Page 6) which discusses the basis upon which FERC made its March 2011 Order.</p> <p>In particular, the recommendations in FERC Order No. 745 as described in the legal brief hinge on the condition that there is a positive "net benefits test" which measures the "billing unit effect" when dispatching DR resources. I felt that in Ontario, this threshold requirement of a positive "net benefits test" is not met.</p> <p>My reasoning was that while costs (i.e. HOEP or MCP) would be reduced when dispatching DR resources, there was a commensurate increase in end user rates as fewer units are consumed. This increase in end user rates is the result of the Global Adjustment increasing whenever the price of electricity (i.e. HOEP or MCP) decreases. In effect, while fewer MWhs would be consumed as a result of DR, the fixed costs of maintaining the electricity system are still the same. This results in an increase to what FERC refers to as the billing unit effect.</p>
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	As a result, I believe the requirement of a positive “net benefits test”, if similarly adopted in Ontario, would not be met.
Saunders, Joe Representing: Distributors	The proposed amendments reflected the evolution of the existing market, and were important to the system as a whole. He acknowledged the concerns raised by market participants, but said he supported the package as a first step, on the understanding that the IESO will take stakeholders’ concerns into account.
Savage, Jessica Representing: IESO	The proposed Market Rule amendment is a “first step towards enabling competition to provide reliability services, in this case, capacity. Building on the existing DR auction and enabling additional resources to compete now is a prudent approach to maximizing future participation when a more significant capacity need emerges in several years’ time.
Urukov, Vlad Representing: Market Participant Generators	<p>The Market Rule amendment package presented to the Technical Panel reflects solely the implementation of the first phase of a staged approach transitioning the existing Demand Response Auction to a more competitive auction process. The Market Rule package was <i>stakeholdered</i> in a dedicated stakeholder engagement and reflects feedback provided by participants. In my assessment, the proposed Market Rules reflect the intent of broadening participation by enabling auction bidding of uncommitted, dispatchable generators, while retaining all features and functionality required by Hourly Demand Response (HDR) and dispatchable loads to continue to participate. In addition, the proposed rules appropriately retain features essential for the execution and settlement of the remaining commitments associated with the last Demand Response auction.</p> <p>With consideration given to the submissions by AMPCO and AEMA, I support implementing the proposed Market Rule amendments as drafted on the following basis: The IESO has demonstrated and reaffirmed that based on history, existing Demand Response Auction participants have not been utilized materially over and above out-of-market activations for testing. The IESO is in the process of addressing out-of-market activations through ongoing stakeholder engagement, targeting an implementation in advance of the first auction held under the proposed new rules.</p> <p>The assessment of the appropriateness of other forms of payments is a complex question that must consider a wide range of economic aspects across the breadth of applicable costs and supplier types. The IESO has committed to evaluate and report on an appropriate path forward in the context of the Ontario market in subsequent phases of auction development. While I support and encourage the IESO to ensure that the issue is addressed in a thorough and transparent fashion, this effort need not delay the implementation of the proposed set of Market Rules.</p>

<p>Wu, Julien</p> <p>Representing: Wholesalers</p>	<p>The proposed Market Rule amendments are necessary and important for planning and reliability, with the Transitional Capacity Auction coming into force very quickly. However, the deliberation has been reminiscent of the discussion initiated previously by Resolute Forest Products, where it felt as though nothing had been resolved in the end because both the substance and the process were so complex. In that instance, there was a dispute resolution going on in parallel with the Technical Panel discussion. Julien voted in favour of the draft amendment so that the concerned parties would not have its resolution process held up by the Panel, and could take the matter forward to the Board if they so choose as a next step.</p>
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SUBMITTED VIA ELECTRONIC MAIL: RULE.AMENDMENT@IESO.CA

July 9, 2019

Ontario Independent Electricity System Operator
Technical Panel

RE: Advanced Energy Management Comments to MRA 00439

I am writing to the Ontario Independent Electricity System Operator (“IESO”) Technical Panel on behalf of the Advanced Energy Management Alliance (“AEMA”) in response to the request for comments on Market Rule Amendment 00439-R00 through R05.

AEMA is an alliance of providers and supporters of distributed energy resources, including demand response (“DR”) and distributed generation, united to advocate for policies that empower and compensate customers appropriately in a manner which contributes to a more efficient, cost effective, resilient, reliable, and environmentally sustainable grid. These comments represent the view of the organization, not of any individual member.

AEMA’s members have been active participants in the IESO’s DR programs, market mechanisms and the stakeholder engagement activities for many years, including the evolution of the DR auction via the Demand Response Working Group, the current Market Renewal Program engagements, and the recent stakeholder sessions on the Transitional Capacity Auction.

Comments on MR-00439-R03

AEMA supports the development of a capacity market to address future resource adequacy in the IESO administered market. A properly designed capacity market will encourage broader competition for provision of capacity and thus best ensure resource adequacy and cost effectiveness, in the best interests of Ontario electricity consumers.

AEMA supports the expansion of Ontario's procurement of capacity products to additional resources; however, AEMA believes that the proposal for market rule changes may result in "discriminatory treatment against a class of market participants" [June 25th, Technical Panel presentation, page 37]. The proposed market rule changes are designed to permit participation by generators in the Transitional Capacity Auction ("TCA"), which is an expanded Demand Response Auction ("DRA"). The introduction of assets competing in the DRA that are not traditional DR assets was not anticipated until the Incremental Capacity Auction ("ICA") stream of the Market Renewal Program went live and the participation of load resources in other market constructs was permitted. Absent these opportunities, all DR resources, including commercial and industrial businesses in the province, will be disadvantaged in the TCA.

DR resources do not receive energy or utilization payments when their capacity is delivered and have been consistently advised by the IESO since the inception of the DRA that this should be reflected in their auction bid prices. Traditional dispatchable generators will receive energy payments for providing capacity and thus do not have to build this into their auction bid prices. DR resources would thus be at a competitive disadvantage to generators in the TCA.

For several years (since the transition of DR2/3 to the DR Auction) and through a variety of channels, AEMA members have been urging the IESO to remove the barriers that prohibit DR resources, including those comprised of aggregated load, to participate in the IESO-administered Energy, Ancillary and Operating Reserve markets. While the IESO now proposes to study the introduction of energy payments to DR resources, the study will not be concluded until late in 2020, and stakeholder feedback on the approach to conducting the analysis required was requested less than a month ago. This time frame will not result in a resolution of the issue prior to the first schedule TCA in December of 2019.

As stated by AMPCO in its submission on MR-00439, requiring DR resources to compete with generators in a TCA prior to resolution of the issue would:

- (a) Undermine competition and market confidence, not only failing to achieve the IESO's objectives for the TCA/ICA program but actually unduly constraining competition; and
- (b) Introduce undue and unjust discrimination against DR resources in the expanded auction program by requiring them to compete with generators prior to resolution of their eligibility for energy payments.

There are a number of DR participants that remain concerned about this issue, many of whom are AEMA members.

There does not appear to be any urgency to implement the first TCA by December 2019 (no imminent shortfall of capacity in 2020). This time frame could result in a

distortion of the market and in discrimination against the current DR community, including hundreds of Ontario businesses, leading to unfair results. AEMA is of the view that the TCA should not proceed prior to resolution of the energy payments issue; DR resources must be compensated for reducing electricity load at the same rates as if they met that demand with generated electricity. This is necessary in order to ensure a level playing field and fair and non-discriminatory competition amongst all resource types in any capacity auction. As the AMPCO submission so aptly stated, introducing an interim TCA, which undermines the ability of DR resources to compete in Ontario's electricity market, would be a regressive step in the quest for enhanced competition and innovation.

Thank you for consideration of these comments. Please feel reach to reach out should you have any questions at katherine@aem-alliance.org or +1-202-524-8832. We look forward to continuing to engage with this process.

Best regards,

A handwritten signature in black ink, appearing to read "Katherine Hamilton".

Katherine Hamilton
Executive Director, AEMA

Cc: AEMA Canada Members: CPower Energy Management, Direct Energy, ecobee, Enel X, EnergyHub, Great Circle Solar, Itron, Nest, NRG, NRStor C&I, Rodan Energy Solutions, Stem, Gowling WLG.

July 9, 2019

IESO Stakeholder Engagement

Submitted via email

Re: AMPCO Submission - MR-00439 - Transitional Capacity Auction

AMPCO is the voice of industrial power users in Ontario. Our goal is industrial electricity rates that are competitive and fair.

Attached is AMPCO's submission made in response to the call for input as part of the market rule amendment process associated with the IESO's proposed Transitional Capacity Auction.

AMPCO appreciates the opportunity to provide such a submission, and looks forward to continuing the dialogue.

Best Regards,

[Original signed by]

Colin Anderson
President

MR-00439 - Transitional Capacity Auction:

Submissions of the Association of Major Power Consumers in Ontario (AMPCO)

INTRODUCTION

Ontario's electricity system is complex and always evolving. AMPCO provides Ontario industries with effective advocacy on critical electricity policies, timely market analysis and expertise on regulatory matters that affect their bottom line.

These submissions are made in response to the call for feedback issued by the IESO in relation to market rule changes required to operationalize the Transitional Capacity Auction (TCA). AMPCO's members are major power consumers, responsible for over 15 TWh of annual load in the province. A reliable and affordable energy supply is critical to the success of their businesses, which is why AMPCO has an interest in these discussions.

AMPCO appreciates the opportunity to provide this feedback and looks forward to continued discussion on the TCA.

GENERAL COMMENT

AMPCO is among the stakeholders that believe the proposal for market rule changes, as it currently stands "*may cause discriminatory treatment against a class of market participants*" [June 25th, TP presentation, page 37]. The proposed market rule changes are designed to facilitate participation by generators in an expanded Demand Response Auction (DRA) platform (i.e. an evolving TCA). Requiring Demand Response (DR) participants to compete against generators in a capacity market without first resolving issues regarding compensation to DR resources for the value which these resources provide in the energy market will undermine the current success of the DRA and handicap DR resources from successfully participating in the market through their own

existing (DRA) platform, as AMPCO has previously set out in its submissions to the IESO of March 25, 2019, May 2, 2019, June 5, 2019 and July 5, 2019.

Generators would bid into a TCA taking into account their anticipated energy payments. DR resources would have to compete against these bids without the prospect of an equivalent energy payment stream. DR resources would thus be at a competitive disadvantage to generators in the TCA.

While the IESO proposes to study the introduction of energy payments to DR resources, the study is proposed to be concluded “*before the end of 2020*”, with a next step proposed to be to “[o]btain input from stakeholders on the approach to conducting the analysis required...” [IESO Demand Response Working Group Meeting Materials, June 19, 2019, p.7].

While AMPCO does accept resolving the issue of DR resources compensation through DRWG and/or MDAG engagement [June 25th TP Presentation, page 39], we are also of the view that requiring DR resources to compete with generators in a TCA prior to resolution of the issue would:

- (a) Undermine competition and market confidence, not only failing to achieve the IESO’s objectives for the TCA/ICA program but actually unduly constraining competition.
- (b) Introduce undue and unjust discrimination against DR resources in the expanded auction program by requiring them to compete with generators prior to resolution of their eligibility for energy payments.

It is our understanding that, contrary to the suggestion otherwise [June 25th TP presentation, page 39], there are a number of DR participants that remain similarly concerned.

Given the lack of any apparent urgency for launch of the TCA, while supporting the proposed market rule and market manual amendments *per se* AMPCO is of the view that the TCA should not proceed prior to resolution of the issue of appropriate compensation

for the value to the market provided by DR resources. Introducing an interim Transitional Capacity Auction (TCA) which undermines the ability of DR resources to compete in Ontario's electricity market would be a regressive step in the quest for enhanced competition and innovation.



Regulatory and Government Affairs
11-1155 North Service Road, Oakville
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T 1 617 224 9900

Thursday July 5th, 2019

IESO Technical Panel
Submitted via email
rule.amendments@ieso.ca

Re: Transitional Capacity Auction – MR-00439-R04

Enel X, (formerly EnerNOC), is a trusted partner helping Ontario enterprises develop, execute, and refine customized energy management strategies to reduce costs, and manage risk. Enel X is the global leader in demand-side flexibility services, providing large energy users and businesses access to more demand response and demand management participation in markets worldwide than any other provider. EnerNOC has worked with businesses in Ontario since 2008 and is a Market Participant in the IESO market, active in the Demand Response Auction.

For Market Rule Amendment MR-00439-R04, Enel X provides the following recommendation:

Section 4.8.3

Enel X recommends changing “any compensation” to read “any adjustment” similar to section 4.8.4. It is arbitrary and capricious for the treatment of billing errors to be asymmetrical depending on which party owes a net-payment. Enel X views this difference in language as an error and requests that the market rule be amended accordingly. Please see recommended changes in s. 4.8.3.3 highlighted in red/bold below.

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:

4.8.3.3 any **compensation adjustments** for ~~demand-response~~ capacity 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:

4.8.4.3 any adjustments to ~~demand~~ capacity ~~response~~ market participant payments pursuant to section 4.7J.

July, 2019

IESO PROPOSED CAPACITY AUCTIONS & DEMAND RESPONSE RESOURCES

AEMA/AMPCO BRIEF

Summary of Concerns and Recommendation.

1. The Ontario Independent Electricity System Operator's (IESO) proposal for developing a broadened capacity auction is part of the IESO's overall Market Renewal Program (MRP). The overall objective of the MRP is to encourage and enhance competition¹:

Creating a stable and efficient marketplace that produces value for consumers involves encouraging competition and innovation among suppliers – and is the catalyst behind initiatives to resolve long-standing market design issues.

2. Proceeding with a broadened capacity auction, in the form of the "Transitional Capacity Auction" (TCA) currently proposed, without first resolving how demand response (DR) resources are compensated for the value that they provide to the IESO administered market (IAM) would not only fail to further this objective, it would undermine this objective.
3. It has been definitively recognized that DR resources can provide electricity wholesale market energy services, and that failure to compensate DR resources for such services in a manner equivalent to compensation provided to generation resources for similar services is unjust and unreasonable.
4. Without ensuring just and reasonable compensation to DR resources, on a comparable basis with other resources which bring similar value to the IAM, the TCA proposal could result in replacement of one set of capacity providing resources with another. This would not enhance competition, but it may well stifle it.
5. While the IESO has indicated that it will address the issue of compensation of DR resources for the value that they provide to the IAM, resolution of this issue is not anticipated prior to the proposed December 2019 implementation of TCA Phase I.
6. Fortunately there appears to be no urgency to proceeding with the TCA. On July 16, 2019 the IESO indicated that it would suspend further work on an "Incremental Capacity Auction" (ICA), the mechanism towards which the TCA was to evolve, in light of an imminent forecast indicating sufficient baseload and other resources to ensure reliability for the foreseeable future. The IESO indicated that work on the TCA would continue as currently planned. The current plan is for an initial TCA by the end of 2019.
7. As there is currently no time frame within which a full ICA program is required, there is no rationale for implementing a TCA prior to resolution of the issue of just and reasonable

¹ IESO Transitional Capacity Auction: Phase I Design Document, April 11, 2019, page 1.

compensation for DR resources in the IAM, and all the more reason for getting the TCA right initially so that it will facilitate, rather than undermine, competition.

8. ***Implementation of the TCA should be deferred. It would be more appropriate and more equitable, and it would better achieve the IESO's stated objectives, to forego the proposed "Phase I" TCA implementation in December, 2019 and instead focus on getting the proposed TCA right from its initiation.***

Background and Current Status.

9. DR is the changing of electricity consumption patterns by end-use consumers in response to market prices.²
10. Since 2015 the IESO has held annual demand response auctions (DRAs) to acquire DR capacity from market participants that are able to provide that capacity to the market in exchange for an availability payment³ (which is for present purposes essentially a "capacity payment" - i.e. a payment to ensure that capacity is available to supply energy services as and when called upon).
11. Four successful DRA's have been held in Ontario, the most recent in December 2018. The IESO's report on the most recent DRA underscores the success of the DRA program⁴ [emphasis added]:

This year, 38 organizations were registered as auction participants, the highest number since the auction began in 2015. The successful proponents included four new participants who represent a mix of commercial and industrial consumers.

The average annual clearing price for availability payments of \$52,810/MW represents a 30% decrease from last year, and a 42% decrease since the first auction in 2015. The auction cleared 818 megawatts (MW) for the 2019 summer commitment period and 854 MW for the 2019/2020 winter commitment period.

Moving in to its fourth year, the auction has been established as a valuable and reliable tool for the IESO to secure capacity on the system. Decreasing prices year-over-year demonstrates the ongoing maturity of the demand response market as more consumers participate and competition increases. Lower capacity prices benefit all Ontario consumers, while auction participants benefit by offsetting their energy costs and improving their competitiveness.

As the electricity system moves towards competitive electricity auctions under IESO's Market Renewal project, the participation of consumers providing demand response will increase competition leading to overall lower prices for Ontario consumers.

² IESO Market Manual, Part 12.0: Demand response Auction, Issue 6.0, page 4, paragraph 1.

³ IESO News and Updates page; <http://www.ieso.ca/en/Sector-Participants/IESO-News/2018/12/IESO-Announces-Results-of-Demand-Response-Auction>

⁴ *Ibid*

12. Starting in December, 2019 the IESO is proposing to “transition” the DRA into a broader auction by opening participation to other resources.⁵ While the “Phase 1” December, 2019 auction was initially proposed as a first step towards transition to an ICA to be implemented in 2022, with the recently announced suspension of work on the ICA, the first TCA will simply be the first in potentially a series of capacity auction evolutionary steps without any defined end state timing.
13. While AEMA/AMPCO support broadening of the DRA into a more robust and competitive capacity auction mechanism, they are concerned that in the current state of the market for DR such broadening will not only fail to enhance competition for the benefit of Ontario consumers, it will have the opposite effect.
14. Generation resources have other revenue opportunities in the IESO administered markets, including payments for energy services provided. DR resources do not currently have commensurate revenue opportunities for the energy services which they provide to the market.
15. As long as this is the case, commandeering the currently successful DRA into a TCA will not broaden the existing auction platform, it will only result in driving the DR resources that participate in that DRA out of the IESO administered market, and replacing one set of capacity auction participants (DR) with another (generators). This would actually be a step backward in evolution of the IESO administered markets, not a step forward.
16. ***AEMA/AMPCO urge the IESO to match the timing for evolution of capacity auctions with resolution of the issue of how to justly and reasonably compensate DR in the broader IESO administered market.***
17. Given that the IESO now does not anticipate in the foreseeable future a period of significant system need, the current proposal to implement the first TCA in December, 2019 cannot be said to be driven by an imminent need to secure capacity. There is no apparent driver for a rush to implementation of a broadened capacity auction this year.
18. ***AEMA/AMPCO urge the IESO to reschedule the first TCA to allow for sufficient time to ensure just and reasonable and non-discriminatory compensation for DR in the broader IAM, thus preserving the ability of the TCA to enhance, rather than restrict, competition.***

Enhancing competition, for the benefit of consumers.

19. As noted above, the overall objective of the IESO’s MRP is to encourage and enhance competition⁶:

Creating a stable and efficient marketplace that produces value for consumers involves encouraging competition and innovation among suppliers – and is the catalyst behind initiatives to resolve long-standing market design issues.”

⁵ IESO Transitional Capacity Auction: Phase I Design Document, April 11, 2019, page 2.

⁶ IESO Transitional Capacity Auction: Phase I Design Document, April 11, 2019, page 1.

20. The IESO's proposal to evolve the DRA into a broader based capacity auction is to the same end⁷:

The ICA will help us to prepare for [a future period of capacity requirement] by allowing more resource types to compete to provide future capacity, enabling the IESO to flexibly meet the province's adequacy needs.

21. The success of a broadened capacity auction hinges on expanding participation in competition for the provision of capacity:

*One of the advantages of the ICA is that all eligible sources of capacity – new and existing, on both the supply and demand sides – compete with each other, regardless of resource type. ...From the perspective of meeting adequacy needs, there is no functional difference between a megawatt of power from an electricity generating facility and a megawatt of reduced consumption from demand response.*⁸

22. The TCA would start with the DRA, and add non-committed dispatchable generators as eligible capacity auction participants. The IESO's stated intent in so doing is to "enable competition between additional resource types".⁹

23. At the same time the IESO has acknowledged concerns that there are barriers to DR participation in the IESO markets, and that one of these barriers is the unavailability to DR resources of energy payments.¹⁰

24. The IESO proposes to study the introduction of energy payments for DR resources (i.e. to determine "whether there is a net benefit to electricity ratepayers if DR resources are compensated with energy payments for economic activations". The study proposed is to be concluded "before the end of 2020", with a next step proposed to be to "[o]btain input from stakeholders on the approach to conducting the analysis required to make this determination".¹¹

25. Requiring DR resources to compete against generators without resolving the comparative value of DR resources and generation resources in the energy market, and how to justly and reasonably compensate the former in a manner comparable to the latter, would undermine the current success of the DRA and handicap DR resources from successfully competing within their own existing market platform.

- (a) Generators will bid into capacity auctions taking into account their anticipated energy payments.

⁷ IESO *Incremental Capacity Auction High-Level Design: Executive Summary*, March 2019, page 1.

⁸ IESO *Incremental Capacity Auction High-Level Design: Executive Summary*, March 2019, page 3.

⁹ *Transitional Capacity Auction Phase I Design Document*, April 11, 2019, p.2.

¹⁰ IESO Demand Response Working Group Meeting Materials, June 19, 2019, pages 54 *et seq.*

¹¹ IESO Demand Response Working Group Meeting Materials, June 19, 2019, page 7.

- (b) DR resources will have to compete against these bids without an equivalent energy payment stream, putting DR resources at a competitive disadvantage to generators in the capacity market.¹²
26. Requiring DR resources to compete with generators in a TCA prior to resolution of the eligibility of DR resources for energy payments would:
- (a) Undermine competition and market confidence, a result inimical to the IESO's objectives for the capacity auction program and its MRP in general.
 - (b) Introduce undue discrimination against DR resources in the expanded auction program by requiring them to compete with generators prior to resolution of their eligibility for energy payments.
- (The IESO has recently recognized just this sort of issue in respect of DR compensation for out of market Hourly DR resource activations.¹³)
27. Premature introduction of a TCA such that it undermines the ability of DR resources to compete in Ontario's competitive electricity market would be a regressive step in the quest for enhanced competition and innovation.
28. Commandeering the current DRA to a broader auction platform without first addressing the competitive position of DR resources *vis a vis* generators and other sources of capacity would unnecessarily damage a highly successful existing market mechanism, which would be unfair to DR resources, counterproductive to robust evolution of the Ontario electricity market, and irresponsible on the part of the IESO.

Failing to recognize and compensate the value of DR resources to the energy market is unjust and unreasonable.

29. It has been definitively recognized that DR resources can provide electricity wholesale market energy services, and that failure to compensate DR resources for such services is unjust and unreasonable.
30. In a Final Rule issued in March, 2011 the United States Federal Energy Regulatory Commission (FERC) determined that:¹⁴

... when a demand response resource participating in an organized wholesale energy market... has the capability to balance supply and demand as an alternative to a generation resource and when dispatch of that demand response resource is cost-effective... that demand response resource must be compensated for the service it provides to the energy market at the market price for energy...

¹² Energy payments avoided by the load are not economically equivalent to energy payments for provision of demand reduction to the market, and are not adequately compensatory for the value provided by DR resources to the energy market: 134 FERC ¶ 61,187, 18 CFR part 35, Docket No. RM10-17-000; Order No. 745, *Demand Response Compensation in Organized Wholesale Energy Markets*, March 15, 2011, paragraph 62.

¹³ IESO Demand Response Working Group Meeting Materials, June 19, 2019, pages 36 *et seq.*

¹⁴ 134 FERC ¶ 61,187, 18 CFR part 35, Docket No. RM10-17-000; Order No. 745, *Demand Response Compensation in Organized Wholesale Energy Markets*, March 15, 2011, page 1.

This approach for compensating demand response resources helps to ensure the competitiveness of organized wholesale energy markets and remove barriers to the participation of demand response resources, thus ensuring just and reasonable wholesale rates.

31. The FERC's conclusions on this topic followed a comprehensive rule making process during which opposing positions on the issue were thoroughly represented (with supporting expert evidence), canvassed and considered.
32. On January 25, 2016, the Supreme Court of the United States issued a determination that in making the foregoing determination FERC was within its jurisdiction to regulate wholesale power markets. While expressly eschewing making a finding on the correctness of FERC's determination as outside of the Court's legitimate area of inquiry, following a detailed 33 page review of the evidence and arguments placed before FERC in the rule making process, the Court commented:¹⁵

Our important but limited role is to ensure that the Commission engaged in reasoned decision making – that it weighed competing views, selected a compensation formula with adequate support in the record, and intelligibly explained the reasons for making that choice. FERC satisfied that standard.

33. FERC's determination that establishing just and reasonable wholesale power market rates requires that a DR resource must be compensated for the service it provides to the energy market at the market price for energy was subject to satisfaction of a "net benefits test" to assess the appropriateness of that DR compensation. The "net benefits test" condition was applied to address what was referred to in the FERC's rule making proceeding as the "billing unit effect" of dispatching DR resources in the energy market. Essentially, the concern is that as the volume of energy consumed declines when DR resources actually reduce demand (i.e. avoid consuming energy), the reduction in the costs to meet overall energy demand by dispatching competitive DR is offset in end-user rates to some extent by the fewer units consumed, resulting in an upward pressure in the price for each unit. Whether the reduced costs of supply outweigh the upward pressure on unit rates determines whether there is a "net benefit" for end-users from participation of the DR resource in the market. If there is, then it is in the interest of consumers that DR resources be dispatched when they require a lower energy payment than other resources bidding into the market.
34. On this point FERC concluded as follows¹⁶:

For this reason, the billing unit effect associated with dispatch of a demand response resource in an energy market must be taken into account in the economic comparison of the energy bids of generation resources and demand response resources. Therefore, rather than requiring compensation at [marginal price] in all hours, the Commission requires the use of the net benefits test described herein to ensure that the overall benefit of reduced [marginal price] that results from dispatching demand response resources exceeds the cost of

¹⁵ Federal Energy Regulatory Commission v. Electric Power Supply Association Et Al., 577 U.S. (2016), page 33.

¹⁶ 134 FERC ¶ 61,187, 18 CFR part 35, Docket No. RM10-17-000; Order No. 745, *Demand Response Compensation in Organized Wholesale Energy Markets*, March 15, 2011, paragraph 53.

dispatching those resources. When the above-noted conditions of capability and of cost effectiveness are met, it follows that demand response resources that clear in the day-ahead and real-time energy markets should receive the [marginal price] for services provided, as do generation resources.

35. In the course of its consideration of the equivalency of DR resources and generation resources in providing energy services, the importance of recognizing and compensating this equivalency appropriately, and the importance of thus reducing barriers to DR participation in wholesale markets, FERC cited an earlier order which included a finding that¹⁷:

A market functions effectively only when both supply and demand can meaningfully participate, and barriers to demand response limit the meaningful participation of demand in electricity markets.

36. FERC went on to find that:

Removing barriers to demand response will lead to increased levels of investment in and thereby participation of demand response resources (and help limit potential generator market power), moving prices closer to the levels that would result if all demand could respond to the marginal cost of energy.¹⁸

...

In Order No. 719, the Commission found that allowing demand response to bid into organized wholesale energy markets “expands the amount of resources available to the market, increases competition, helps reduce prices to consumers and enhances reliability.”¹⁹

37. In its rulemaking deliberations FERC also considered arguments that DR resources are “compensated” by avoiding energy costs when responding to requests to curtail consumption, and accordingly paying such resources for energy thereby effectively supplied would amount to double compensation. On these arguments FERC found as follows:²⁰ [emphasis in original]

Furthermore, Dr. [Alfred E.] Kahn argues that paying demand response [marginal price] sets “up an arrangement that treats proffered reductions in demand on a competitive par with positive supplies; but one is no more a [case of overcompensation]²¹ than the other: the one delivers electric power to users at marginal costs – the other – reductions in cost – both at competitively-determined levels.

... In the absence of market power concerns, the Commission does not inquire into the costs or benefits of production for the individual resources participating as supply resources in the organized wholesale electricity markets and will not here,

¹⁷ Ibid, paragraph 57, citing FERC Order No. 719.

¹⁸ Ibid, paragraph 59.

¹⁹ Ibid, paragraph 61.

²⁰ Ibid, paragraph 62.

²¹ Insert in original.

as requested by some commenters, single out demand response resources for adjustments to compensation. The Commission has long held that payment of [marginal price] to supply resources clearing the day-ahead and real-time energy markets encourages “more efficient supply and demand decisions in both the short run and long run,” notwithstanding the particular costs of production of individual resources. Commenters have not justified why it would be appropriate for the Commission to continue to apply this approach to generation resources yet depart from this approach for demand response resources.

38. FERC also recognized in its rule making findings the interrelationship between just and reasonable compensation to DR resources in energy markets and the fairness of associated capacity markets. FERC noted *“how the increased participation by demand resources [in energy markets] could actually increase potential suppliers in capacity markets by reducing barriers to demand resources, which would tend to drive capacity prices down”,* and the need to *“examine the way in which capacity markets already may take into account energy revenues”*.²²

Instituting a TCA without resolving issues regarding just and reasonable compensation to DR resources is discriminatory.

39. As outlined above, the pre-eminent North American energy regulator – FERC – has carefully and thoroughly considered the role of DR resources in wholesale energy markets, and the issue of just and reasonable compensation of those resources for their participation, and has concluded that:
- (a) Failure to compensate DR resources for the value they provide to energy markets in the same manner as compensation is afforded to generation resources for the value which they supply to energy markets results in wholesale prices that are unjust and unreasonable.
 - (b) Fair compensation of wholesale energy market participants for energy services provided influences the fairness and efficiency of capacity markets.
40. It follows that expanding the current DRA platform to allow generation resources eligible for energy market compensation to participate in the broadened capacity auction without addressing just and reasonable compensation for DR resources providing energy market services would result in capacity markets that are effectively anti-competitive and discriminatory.
41. Without resolution of payment to DR resources for energy services that they can and do provide to the energy market in a manner that fairly recognizes the value of these services provided, inviting generators to compete with DR resources in a capacity auction would unduly and unfairly prejudice the ability of those DR resources to compete, and would thus be discriminatory.

²² 134 FERC ¶ 61,187, 18 CFR part 35, Docket No. RM10-17-000; Order No. 745, *Demand Response Compensation in Organized Wholesale Energy Markets*, March 15, 2011, page 67, footnote 167.

Market Rule Amendments which, in the result, are discriminatory, must be rejected.

42. The Ontario *Electricity Act, 1998 (EL Act)* governs the authority of the IESO to make Market Rules, and the manner in which the Ontario Energy Board (OEB) oversees that IESO authority.
43. Subsection 33(9) of the *EL Act* requires the OEB to consider whether a Market Rule amendment “*unjustly discriminates against or in favour of a market participant or class of market participants*”. If the OEB so finds, it must make an order revoking the amendment, and referring the amendment back to the IESO for further consideration.
44. For the reasons articulated above, Market Rule amendments which have the effect of allowing generation resources to unjustly and unfairly compete against DR resources for the provision of capacity to the IAM would “*unjustly discriminate against a class of market participants*” – i.e. DR resources currently active in the very successful DRA – and would have to be revoked by the OEB.
45. The IESO should refrain from instituting Market Rule amendments which would co-opt the current DRA platform to a broadened capacity auction prior to addressing the currently unjust and unreasonable wholesale energy market compensation structure under which DR resources are not fairly and properly compensated for the energy services which they provide to the IAM.
46. To proceed with the TCA related Market Rule amendments proposed without first addressing this unfairness would have the effect of unjustly discriminating against DR resources competing to provide capacity to the IAM. Such amendments would not withstand regulatory review.

Recommendation.

47. The unjust discrimination outlined above would be particularly objectionable where there is no need to rush to ICA implementation prior to resolution of the issue of just and reasonable compensation for DR resources in the wholesale energy market. With the suspension of work on the ICA as a result of an updated forecast which sees no resource constraints for the foreseeable future there is no justification for rushing to TCA implementation.
48. AEMA and AMPCO support expansion of the current DRA into a broader capacity auction platform, and the use of a broadened capacity auction platform along with other competitive procurement options to address future capacity needs.
49. While AEMA/AMPCO recognize that the IESO has now proposed a study, to be completed by the end of 2020, to determine “*whether there is a net benefit to electricity ratepayers if DR resources are compensated with energy payments for economic activations*”, as outlined above the FERC has already exhaustively considered this issue as recognized by the U.S. Supreme Court, and has unequivocally concluded “yes”. Repeating this comprehensive examination is unnecessary and wasteful. That work has already been done, and concluded.

50. A more appropriate, and considerably more focussed, inquiry to validate the “net benefits” to consumers should not take until the end of 2020.
51. In order to enhance competition and market confidence, both to the ultimate benefit of Ontario’s electricity consumers, **AEMA and AMPCO urge the IESO to:**
- (a) **Recognize and respect both its own overall MRP objectives and its capacity auction specific objectives of “[c]reating a stable and efficient marketplace that produces value for consumers” by “encouraging competition and innovation among suppliers” and “resolv[ing] long-standing market design issues”²³.**
 - (b) **Proceed expeditiously with a more focussed study to validate the “net benefits” to consumers of energy payments for DR resources, so that the study can be concluded as soon as feasible and its results implemented.**
 - (c) **Defer implementation of a TCA from December, 2019 and instead focus on getting the proposed TCA right from its initiation, following resolution of the issue of compensation of DR resources for the value that they provide to the IAM.**
 - (d) **Thereby avoid a result which would unfairly and unjustly discriminate against DR resources in the IAM.**

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²³ IESO Transitional Capacity Auction: Phase I Design Document, April 11, 2019, page 1.



**Assessment of Impact of Rule
Amendment on Consumers re Prices,
Reliability and Quality of Electricity
Service**

This form is used to document the *IESO's* assessment of the impact of a proposed *market rule amendment* on the interests of consumers with respect to prices and the *reliability* and quality of electricity service. Please complete all parts of this form.

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-00439-R00-R05
Title:	Transitional Capacity Auction

PART 2 – ASSESSMENT

The following is the *IESO's* assessment of the impact of the proposed *market rule amendment* on the interests of consumers with respect to prices and the *reliability* and quality of electricity service.

Impact on Prices

The Transitional Capacity Auction (TCA) represents an evolution of the demand response auction (DRA) into a more competitive capacity acquisition mechanism. Prices have decreased year-over-year in the DRA, with a 42 per cent decrease in prices since the first DRA in 2015. By enabling non-committed dispatchable generators to participate in the TCA, the increased competition is expected to put downward pressure on price.

Impact on Reliability of Electricity Service

The TCA is expected to acquire a reliable source of capacity to help meet Ontario's resource adequacy needs.

Impact on Quality of Electricity Service

No concerns have been identified that would negatively impact the quality of electricity service.

Date Assessment Prepared: March 6, 2018



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-00439-R00-R05
Title:	Transitional Capacity Auction

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.

Technical Panel Comments

At the August 13, 2019 Technical Panel meeting, multiple Technical Panel members mentioned cost to ratepayers as part of their rationale accompanying their vote. Excerpts from those comments are below with the full remarks posted on the Technical Panel [webpage](#).

Consumer Representative: Implementing the capacity auction will provide greater competitiveness in the market and therefore benefits to consumers.

Generator Representative: Increased competition in the TCA will put downward pressure on the capacity auction clearing prices, which is of interest to ratepayers.

Stakeholder Comments

On May 22, 2019, the IESO posted the draft market rule amendment proposals for review and comment at the “Meeting Ontario’s Capacity Needs: 2020-2024” stakeholder engagement. Eight submissions from stakeholders were received, several with feedback specific to prices and the reliability and quality of electricity service. Those comments are summarized below. The full submissions as well as all feedback received is available on the engagement [webpage](#).

Is this market rule amendment proposal in the interest of consumers with respect to prices?

Advanced Energy Management Alliance (AEMA): Although the TCA will move the procurement of capacity resources to a more competitive model (via an Auction) and therefore a more cost effective price will be procured for capacity resources, further market rule amendments will need to be made to

PART 2 – SUMMARY OF COMMENTS

ensure that equal revenue streams exist in all electricity markets including Energy and Ancillary Services.

Enel X: Supports the comments submitted by AEMA.

Northland Power: Yes, allowing more competition within the TCA will lower the price of the capacity product, which benefits consumers.

Rodan: Yes

Workbench Corp: No. Costs are increased by requiring TCA-participating generators to become dispatchable. It seems that a parallel product could be offered by self-schedulers with less investment, thereby enabling the same total capacity at an overall lower auction bid price.

Is this market rule amendment proposal in the interest of consumers with respect to the reliability of electricity service?

AEMA: Market rule amendments are moving the procurement of capacity supply resources in the right direction, through competitive auctions.

Enel X: Supports the comments submitted by AEMA.

Northland Power: Having diverse sources of capacity products may improve the reliability of electricity services and benefit consumers.

Rodan: Based on the IESO's Outlook for resource adequacy, this market rule will help satisfy future anticipated shortfalls.

Workbench Corp: Yes

Is this market rule amendment proposal in the interest of consumers with respect to the quality of electricity service?

AEMA: Market rule amendments are moving the procurement of capacity supply resources in the right direction, through competitive auctions.

Enel X: Supports the comments submitted by AEMA.

Northland Power: Having diverse sources of capacity products may improve the reliability of electricity services and benefit consumers.

Rodan: No.

Workbench Corp: Yes

Date Summaries Prepared: August 16, 2019

From: Terry Young
Sent: August 16, 2019 9:07 AM
To: Colin Anderson; Rachel Ingram
Cc: Michael Lyle
Subject: RE: AEMA / AMPCO Legal Brief Regarding Transitional Capacity Auction

Colin and Rachel:

Two further points for you following our discussion Wednesday at SAC on the timing of the posting of the legal brief.

First of all, as you may know the Technical Panel at its June 25 meeting requested that the draft Transitional Capacity Auction rules be posted for stakeholder comments. The deadline for submitting comments was July 9 and I would note that both AEMA and AMPCO provided comments prior to the deadline. The legal brief was subsequently submitted to us on July 19.

My second point is related to the email below and in particular the second last paragraph (highlighted) where the intent for posting was requested but no date was sought, nor was any reference made to the need for this posting prior to the Technical panel meeting being held. Rather, the request was to discuss, at our convenience, the timing of the posting. At no point did you make the request that TP be provided with the Legal Brief and in fact it was IESO staff that reached out to you to ask whether it should be provided to TP members.

We reached out to you about sharing the brief with TP on August 9 and we did schedule a meeting for August 12 and subsequently posted the material after the meeting. As I mentioned at the SAC meeting, the TP Chair also offered to delay the vote if the TP needed more time to review the letter but the TP declined that offer.

Terry

From: Colin Anderson <canderson@ampco.org>
Sent: July 19, 2019 10:30 AM
To: Peter Gregg <Peter.Gregg@ieso.ca>; Leonard Kula <leonard.kula@ieso.ca>; Terry Young <terry.young@ieso.ca>
Cc: Griffiths, Sarah (Enel X) <sarah.griffiths@enel.com>; Rachel Ingram <rachel.ingram@rodanenergy.com>; katherine@38northsolutions.com
Subject: AEMA / AMPCO Legal Brief Regarding Transitional Capacity Auction

CAUTION: This email originated from outside of the organization. Exercise caution when clicking on links or opening attachments even if you recognize the sender.

Hi Peter, Leonard and Terry,

Please find attached a legal brief written by Gowling WLG and jointly sponsored by the Advanced Energy Management Alliance (AEMA) and the Association of Major Power Consumers in Ontario (AMPCO), pursuant to each organization's involvement on the Demand Response Working Group (DRWG) and in the design of the Transitional Capacity Auction (TCA). It deals with the issue of unjust discrimination that will result from the implementation of the TCA as currently planned.

The brief clearly sets out the discrimination issue from a legal perspective, and provides a simple recommendation to remedy the problem. Given the IESO's announcement this week that it is suspending work on the Incremental Capacity Auction (ICA) as a result of an updated forecast which sees no resource constraints for the foreseeable future, there is no justification for rushing to TCA implementation prior to resolution of the recognized concerns regarding just and reasonable energy market compensation for Demand Response (DR) resources. AEMA and AMPCO are urging the IESO to defer TCA implementation to enable resolution of the DR energy market compensation issue and thus focus on getting the TCA right from its initiation, rather than undermining the historical successes of the DR Auction.

We are providing you with an advance copy of this brief so that you can review its content prior to any further action. Ultimately, we would like to post this in the public domain, but we are happy to discuss the timing of that with you, at your convenience.

AEMA and AMPCO are pleased to provide this brief to the IESO and we hope that it is found to be instructive and helpful. AEMA and AMPCO look forward to continuing to work with the IESO going forward.

Regards,
AEMA and AMPCO

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- 00439-R00-R05
Title:	Transitional Capacity Auction

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:	August 28, 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

- | |
|--|
| <p><input checked="" type="checkbox"/> No conflict was declared.</p> <p><input type="checkbox"/> Any director declaring a conflict of interest abstained from voting on the adoption of the Amendment.</p> |
|--|

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

- Agenda Item Summary
- Memorandum from the Technical Panel Chair
- IESO Summary Presentation
- IESO legal memo (privileged and confidential, not made publically available)
- Market Rule Amendment Proposals
 - R00 – Changes to Market Rule Definitions
 - R01 – Participant Authorization and Facility Registration
 - R02 – Auction Parameters and Publication
 - R03 – Energy Market Participation
 - R04 – Non-Performance Charges and Settlements
 - R05 – Removal of DR Pilots and CBDR Sections
- Draft Resolution
- Technical Panel member vote and rationale
- Stakeholder Feedback
 - Advanced Energy Management Alliance (AEMA)
 - Association of Major Power Consumers of Ontario (AMPCO)
 - Enel X
 - AEMA / AMPCO joint submission
- Consumer Impact Assessment (this assessment is required to support the Ontario Energy Board market rule amendment review process)
- Technical Panel and Stakeholder Comments (this assessment is required to support the Ontario Energy Board market rule amendment review process)
- IESO email to Rodan and AMPCO, dated August 16, 2019
- Rodan email to IESO (not made publicly available at request of Rodan)

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 11 in favour and 1 opposed to recommend MR-00439-R00-R005 for approval by the *IESO Board*. The *IESO Board* discussed the Amendment at the August 28, 2019 *IESO Board* meeting, including the positions of stakeholders and the issues raised during the market rule amendment process. The *IESO Board* decided to adopt the Amendment, with an effective date of October 15, 2019, based on the following reasons:

1. The Amendment is the first phase in evolving the demand response auction into a more competitive capacity acquisition mechanism that includes new resource types. This allows for increased competition in the acquisition of capacity for the benefit of Ontario customers.
2. The Amendment enables the IESO to begin implementing the Transitional Capacity Auction in a phased approach in order to be ready to address forecasted capacity needs in Ontario. The implementation of the first phase of the Transitional Capacity Auction will enable important experience and learnings with respect to integrating and administering new resource types in the Ontario capacity market sufficiently in advance of more significant capacity needs, currently projected to arise in the 2023 timeframe. A phased approach will reduce risk, while ensuring continued evolution of the market through the phased inclusion of new resources. This is a more prudent approach than attempting to implement a new capacity auction mechanism just prior to the time when there is a more significant capacity need.
3. The Amendment enables non-committed dispatchable generators to participate in the Transitional Capacity Auction alongside dispatchable loads and hourly demand response resources. The Amendment provides an important opportunity for existing non-committed generators coming off contract to compete to provide reliability services, in this case capacity. In the absence of this opportunity to compete, these generators may choose to wind down their operations to the potential detriment of Ontario reliability and the interests of Ontario customers.

The *IESO Board* noted and reviewed the view of some stakeholders that the Amendment would unjustly discriminate against demand response resources because those resources would not receive an additional payment if they are economically activated (comparable to the energy payment to generators). The *IESO Board* considered the AEMA/AMPCO joint brief dated July 19, 2019 and concluded that the current Amendment does not unjustly discriminate against demand response resources.

The position of the stakeholders relies heavily on a Final Rule issued in March 2011 by the United

PART 6 – REASONS

States Federal Energy Regulatory Commission (FERC) which requires payments to demand response resources when they are dispatched subject to the condition that they meet a “net benefit requirement”. This FERC Rule is a relevant consideration, but the Board was advised it is not binding in Ontario. More importantly, it is not clear that the FERC analysis and conclusion is applicable to Ontario given the differences in the Ontario electricity market as compared to United States electricity markets. For example, it is not clear whether an additional payment to demand response resources in Ontario would meet the FERC net benefit requirement.

As a result, further analysis is required, and the IESO has already committed to completing that analysis and engaging stakeholders in this process. AEMA/AMPCO believe it is appropriate to delay implementation of the auction in order to complete the analysis. The analysis is expected to take some time which would delay the planned Transitional Capacity Auction. The *IESO Board* considered a delay and concluded that a delay is not warranted and, further, would undermine the benefits noted above and be detrimental to the market overall.

In addition, access to energy payments is not expected to be a material consideration for the December 2019 auction, because economic activations are expected only under very limited circumstances, which is also consistent with the level of historical economic activations. As noted above, the IESO has committed to studying the impact of introducing energy payments for demand response resources in Ontario and if such payments are warranted they could be introduced in a subsequent phase of the capacity auction. The *IESO Board* concluded that proceeding with the Amendment and the auction would not cause substantial harm to demand response resources.

The *IESO Board* also concluded that delaying the auction in order to complete the analysis would be detrimental to the market overall. Specifically, delaying the auction would delay the introduction of increased competition, create an unnecessary delay in the phased approach to developing the auction in advance of substantial future capacity needs, and risk failing to retain access to existing generation assets coming off contract. A delay would therefore result in decreased competition in Ontario and give rise to potential negative impacts on reliability.

The *IESO Board* concluded that it is prudent to implement the Amendment as proposed. The *IESO Board* noted that the *technical panel* also considered these issues and concluded (by a vote of 11 in favour and 1 opposed) that the Amendment should be recommended for approval. Much of the

PART 6 – REASONS

rationale of those supporting the Amendment is reflected in the *IESO Board's* reasons for approving the Amendment.

Lastly, relating to a *technical panel* process matter, the *IESO Board* noted that the AEMA/AMPCO joint brief was provided to the *technical panel* shortly before its August 13, 2019 meeting and the issue was raised as to whether the *technical panel* had sufficient time to consider the brief. The *technical panel* was provided an opportunity to delay the vote if members required more time to consider the joint brief, but the *technical panel* decided not to delay the matter. The *IESO Board* reviewed all the *technical panel* Materials and concluded that the *technical panel* exercised its discretion on an informed and reasonable basis.

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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R00		
Subject:	Transitional Capacity Auction		
Title:	Changes to Market Rule Definitions		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input checked="" type="checkbox"/> Deletion	<input checked="" type="checkbox"/> Addition
Chapter:	11	Appendix:	
Sections:	NA		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review and Comment	May 15, 2019
2.0	Draft for Technical Panel Review	June 18, 2019
3.0	Posted for Stakeholder Review and Comment	June 27, 2019
4.0	Submitted for Technical Panel Vote	August 6, 2019
5.0	Recommended by Technical Panel; Submitted to IESO Board	August 14, 2019
6.0	Approved by IESO Board	August 28, 2019
Approved Amendment Publication Date:		September 5, 2019
Approved Amendment Effective Date:		October 15, 2019

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 evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

The changes to Chapter 11 – Definitions outlined below are being made to clearly define key aspects of the Transitional Capacity Auction, differentiate from previous demand response programs, and to retire definitions that will no longer be in use.

Discussion

Most of the proposed changes to the market rules to enable the TCA are to add, change or delete defined terms. This approach was taken to minimize process changes for existing market participants. The proposed market rules for the TCA are based on newly defined terms with the 'capacity auction' prefix which encompasses both the existing DRA commitment period which ends on April 30, 2020 and the TCA, expected to commence in December, 2019. Because of the overlap of the two auction constructs, the new capacity auction definitions will cover both auctions.

Some 'demand response' definitions remain in the proposed ruleset because they are required to facilitate the existing DRA. It is anticipated that most of the remaining demand response definitions will be removed from the market rules after the DRA commitment period has concluded. This will be a further discussion in phase 2. In the same manner, some 'transitional capacity auction' definitions were added only to help facilitate the first TCA and may change in future phases. Managing any overlapping auction rules within the TCA will be a key consideration for the upcoming phases of change.

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. In response to feedback received, changes were made to the Capacity Auction Zonal Constraints, Capacity Auction Eligible Generation Resource and Qualified Capacity definitions. Additionally, the definition for Demand

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Response Direct Participant has been removed as that definition was used exclusively for the Capacity Based Demand Response Program.

All new defined terms are listed below, and fully defined in the next section.

Chapter 11

- New definitions
 - *auction capacity*
 - *auction period*
 - *availability window*
 - *capacity auction*
 - *capacity auction deposit*
 - *capacity auction eligible generation resource*
 - *capacity auction offer*
 - *capacity auction participant*
 - *capacity auction zonal constraints*
 - *capacity generation resource*
 - *capacity market participant*
 - *capacity obligation*
 - *capacity prudential support*
 - *capacity prudential support obligation*
 - *capacity transferee*
 - *capacity transferor*
 - *capacity zonal constraints*
 - *demand response resource*
 - *forward period*
 - *non-committed resource*
 - *obligation period*
 - *qualified capacity*
 - *target capacity*
 - *transitional capacity auction*
 - *transitional capacity auction clearing price*
 - *transitional capacity auction reference price*

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

- Updated definitions
 - *capacity auction deposit*
 - *commitment period*
 - *demand response auction*
 - *demand response capacity*
 - *demand response contributor*
 - *demand response energy bid*
 - *demand response market participant*
 - *demand response prudential support*
 - *demand response prudential support obligation*
 - *demand response transferor*
 - *demand response transferee*
 - *hourly demand response*

- Deleted definitions
 - *capacity based demand response program*
 - *demand response aggregator*
 - *demand response auction clearing price*
 - *demand response auction offer*
 - *demand response capacity obligation*
 - *demand response direct participant*
 - *demand response pilot program*
 - *demand response security*
 - *demand response target capacity*
 - *demand response zonal constraints*

Specific changes to the definitions are listed below. There are five additional rule amendment packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT

Chapter 11

auction capacity means an amount in megawatts of electricity available to be provided to the IESO-controlled grid, by capacity market participants pursuant to obligations related to a capacity auction;

auction period means, with respect to a capacity auction, the length of time commencing with the opening of the window during which the IESO receives capacity auction offers, and finishing at the time at which the IESO publishes auction results;

availability window means the hours in an obligation period during which resources associated with capacity obligations are required to be available to provide auction capacity;

capacity auction means a transitional capacity auction or a demand response auction;

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

~~*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;~~

capacity auction eligible generation resource means a non-committed resource that is a generation facility, which is also a connected facility at the commencement of the capacity qualification process for a given capacity auction, and which is registered as dispatchable with the IESO from at least the time a capacity obligation is allocated to it;

capacity auction offer means an offer(s) from a capacity auction participant, in the form of a price-quantity pair(s), to provide auction capacity for an applicable obligation period, reflecting the amount of auction capacity that the capacity auction participant can reliably and responsibly provide if received as a capacity obligation, and which offer amount is no greater than the capacity auction participant's qualified capacity;

capacity auction participant means a person that is authorized to participate in a capacity auction;

capacity auction zonal constraints means the minimum or maximum amount of auction capacity that a capacity auction seeks to secure for a specific electrical zone as detailed by the IESO in each pre-auction report;

capacity generation resource means a capacity auction eligible generation resource with respect to which a capacity market participant has allocated a percentage of a capacity

obligation received in the given capacity auction in accordance with the applicable market manual;

capacity market participant means a capacity auction participant that has registered with the IESO as a capacity market participant, and who satisfies requirements contemplated in Chapter 7, section 18;

capacity obligation means the amount of auction capacity that a capacity market participant is required to provide during the availability windows of an obligation period;

capacity prudential support means the collateral provided by a market participant with a capacity obligation in accordance with the requirements contemplated in Chapter 2, section 5B;

capacity prudential support obligation means the dollar amount of collateral required as specified by the IESO as a condition of delivering on a capacity obligation;

capacity transferee means a capacity auction participant who is willing to accept all or a portion of a capacity obligation from a capacity transferor;

capacity transferor means a capacity auction participant who intends to transfer all or a portion of its capacity obligation received through a capacity auction to a capacity transferee;

commitment period means the length period of time for which a demand response market participant is required to fulfill its demand response each capacity auction over which it secures capacity. It consists of two obligation by making its demand response capacity available for dispatch through the day-ahead commitment process and energy market; periods;

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 an auction operated by the IESO prior to December 31, 2018, to procure acquire demand response capacity, in accordance with section 18 of Chapter 7;

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 capacity means the expected quantity of auction capacity a dispatchable

~~load reduction or an hourly demand response resource can provide during a specified availability window and commitment obligation period for following a demand response capacity 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 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 market participant means a person who is a capacity market participant that participates only in the capacity based with a dispatchable load or an hourly demand response program, the demand response pilot program, or is a person with a demand response capacity obligation; resource;~~

~~demand response pilot program means a demonstration project, or projects for a demand response service referred to in section 16 of Chapter 7;~~

~~demand response prudential support means the collateral capacity prudential support provided by a capacity market participant in connection with a demand response capacity obligation auction;~~

~~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 received through a demand response auction;~~

~~demand response resource means, in a capacity auction, either an hourly demand response resource or a dispatchable load and with respect to which a capacity market participant has allocated a percentage of a capacity obligation received in the given capacity auction in accordance with the applicable market manual;~~

~~*demand response security* means the obligations owed to the IESO by a third party and other forms of security for the financial obligations of a demand response market participant, in the form set forth in section 5A of Chapter 2;~~

~~*demand response target capacity* means the amount of demand response capacity which the IESO seeks to clear through the demand response auction;~~

demand response transferor means a ~~*demand response capacity*~~ auction participant who intends to transfer all or a portion of its ~~*demand response capacity obligation*~~ received through a demand response auction to a demand response transferee;

demand response transferee means a ~~*demand response capacity*~~ auction participant who is willing to accept all or a portion of a ~~*demand response capacity obligation*~~ from a demand response transferor;

~~*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;~~

forward period means the period of time immediately following a capacity auction, to the commencement of an obligation period;

hourly demand response means the resource type described in section 19 of Chapter 7, that is a registered facility and used by the IESO as a delivery type, on an hourly basis, for a ~~*demand response capacity obligation*~~;

non-committed resource means a registered facility that is neither - in whole or in part - rate-regulated, contracted to the IESO, contracted to the OEFC, or obligated as a resource backed capacity export to another jurisdiction during the entire duration of a given obligation period;

obligation period means the period of time for which a capacity market participant is required to fulfill its capacity obligation through the day-ahead commitment process and energy market;

qualified capacity means a quantity in megawatts representing the maximum capacity auction offer that a capacity auction participant may provide for an applicable obligation period, and which corresponds to an amount submitted to the IESO by the capacity auction participant for qualification during the pre-qualification period of a relevant capacity auction;

target capacity means the amount of auction capacity which the IESO seeks to acquire through a capacity auction;

transitional capacity auction means an auction operated by the IESO after January 1, 2019 to acquire capacity, in accordance with section 18 of Chapter 7;

transitional capacity auction clearing price means the price at which a capacity auction

clears for an *obligation period* and will be quoted in \$/MW-day;

transitional capacity auction reference price represents the price at which resources would be incentivized to enter the market and recover the necessary costs to make their capacity available, recognizing their revenue opportunities and avoided costs in the *energy market*. The reference price is directly associated with the *target capacity* as another key reference point in the demand curve;

PART 5 – IESO BOARD DECISION RATIONALE

Documents presented to the IESO Board of Directors as well as the reasons for adopting the amendments are available [online](#).

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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R01		
Subject:	Transitional Capacity Auction		
Title:	Participant Authorization and Facility Registration		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input checked="" type="checkbox"/> Deletion	<input checked="" type="checkbox"/> Addition
Chapter:	2, 7	Appendix:	
Sections:	Chapter 2, Sections 1.2, 2.1, 3.1, 5.1, 5B, 7.1, Chapter 2 – Appendices, Chapter 7, 2.5.4, 18.1-18.4, 19.1-19.3, 19.6 (new)		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review and Comment	May 15, 2019
2.0	Submitted for Technical Panel Review	June 18, 2019
3.0	Posted for Stakeholder Review and Comment	June 27, 2019
4.0	Submitted for Technical Panel Vote	August 6, 2019
5.0	Recommended by Technical Panel; Submitted to IESO Board	August 14, 2019
6.0	Approved by IESO Board	August 28, 2019
Approved Amendment Publication Date:		September 5, 2019
Approved Amendment Effective Date:		October 15, 2019

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 evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

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

This proposal also includes the prudential support framework for the TCA which is largely based on the DRA framework.

Discussion

Most additions in this rule amendment proposal are defined term changes, for instance changing demand response to capacity or commitment to obligation. Newly created terms such as capacity auction participant and capacity market participant are described and defined in the definitions package (MR-00439-R00).

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. No responses to feedback were received pertaining to this proposal.

More specifically, Sections 18.1 and 18.2 add some clarifications to existing language and Section 19.1 adds a generator as eligible to be a capacity auction participant that can secure a capacity obligation.

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

Section 19.6 is a new section that provides for the eligibility requirements for capacity generator resources.

Specific changes to the market rules are listed below. There are five additional rule amendment packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT**Chapter 2****1.2 Participation**

- 1.2.2 No person shall 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* unless the *IESO* is satisfied:
- 1.2.2.1 on the basis of the certification, tests, and inspections referred to in section 6.2, that the person satisfies the technical requirements referred to in that section applicable to all *market participants*;
 - 1.2.2.2 that the person, if it applies to participate in the *real-time markets*, will either satisfy the *prudential support* requirements of Appendix 2.3 and any other financial requirements set forth in the *market rules* applicable to all *market participants* and the *IESO-administered market* in which the person wishes to participate, or in the case of a ~~*demand-response capacity*~~ *market participant*, satisfy the ~~*demand response security capacity prudential support*~~ requirements in section 5A5B;

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;*
- 2.1.1.8 [Intentionally left blank – section deleted]
- 2.1.1.9 *demand response market participants;*~~and~~
- 2.1.1.10 ~~*demand response*~~[Intentionally left blank – section deleted]
- 2.1.1.11 *capacity market participants; and*
- 2.1.1.12 *capacity* auction participants.

3. Application for Authorization

- 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*~~*capacity* *auction participant*, either:
 - a. the federal harmonized value-added tax system registration number issued to the applicant by the Canada Customs and Revenue Agency; or
 - b. 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.

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 capacity~~ market participant or ~~demand response capacity~~ auction participant with a ~~demand response~~ capacity obligation shall be subject only to the ~~demand response capacity~~ prudential support requirements in section 5B.

5B. ~~Demand Response Capacity~~ Prudential Requirements

5B.1 Purpose

- 5B.1.1 This section 5B sets forth the nature and amount of ~~demand response capacity~~ prudential support that must be provided by market participants that are either ~~demand response capacity~~ auction participants or ~~demand response capacity~~ market participants as a condition of delivering on a ~~demand response~~ capacity obligation, and the manner in which such market participants must provide and maintain ~~demand response capacity~~ prudential support on an on-going basis, in order to protect the IESO and market participants from payment defaults.

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 capacity~~ 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 capacity~~ 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 capacity~~ prudential support obligation.
- 5B.2.4 If ~~demand response capacity~~ 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 capacity~~ prudential support, the total ~~demand response capacity~~ prudential support held by the IESO in respect of that

market participant will be less than the market participant's ~~demand response capacity~~ 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 capacity~~ prudential support which will become effective no later than the expiry or termination of the existing collateral, such that the total ~~demand response capacity~~ prudential support provided is at least equal to the market participant's ~~demand response capacity~~ prudential support obligation.

5B.2.5 Where a market participant's ~~demand response capacity~~ 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 capacity~~ prudential support obligation, then within five business days, the market participant must provide to the IESO additional ~~demand response capacity~~ prudential support such that the total ~~demand response capacity~~ prudential support provided is at least equal to the market participant's ~~demand response capacity~~ 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 capacity~~ 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 capacity~~ prudential support such that the total ~~demand response capacity~~ prudential support provided is at least equal to the market participant's ~~demand response capacity~~ prudential support obligation.

5B.2.7 If the IESO draws upon part or all of a market participant's ~~demand response capacity~~ prudential support in accordance with section 6.3.3.2 of Chapter 3 and the remaining ~~demand response capacity~~ prudential support held by the IESO in respect of that market participant is less than the market participant's ~~demand response capacity~~ prudential support obligation, the market participant must, within five business days of receiving notice from the IESO, provide the IESO with additional ~~demand response capacity~~ prudential support such that the total ~~demand response capacity~~ prudential support provided is at least equal to the market participant's ~~demand response capacity~~ prudential support obligation.

5B.3 Calculation of ~~Demand Response Capacity~~ Prudential Support Obligations

5B.3.1 The IESO shall determine, in accordance with the applicable market manual, for each market participant, a ~~demand response capacity~~ prudential support obligation for each ~~commitment obligation~~ 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~~capacity prudential support obligation of each market participant as follows:

5B.3.2.1 prior to the start of each ~~commitment~~obligation 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~~capacity 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~~capacity 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~~capacity 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~~capacity prudential support that may be required as a result of an increase in the *market participant's* ~~demand-response~~capacity prudential support obligation that results from such change.

5B.4 Obligation to Provide ~~Demand-Response~~Capacity Prudential Support

5B.4.1 Each *market participant* must provide to the IESO and maintain ~~demand-response~~capacity prudential support, the value of which is at least equal to the *market participant's* ~~demand-response~~capacity prudential support obligation. The aggregate value of the ~~demand-response~~capacity prudential support shall be equal to the value of the undrawn or unclaimed amounts of ~~demand-response~~capacity prudential support provided by the *market participant*.

5B.4.2 A *market participant's* ~~demand-response~~capacity prudential support obligation must be met through the provision to the IESO and the maintenance of ~~demand-response~~capacity 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 capacity*~~ *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 capacity*~~ *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 capacity*~~ *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 capacity~~ *prudential support* referred to in section 5B.4.2.1 and shall establish for each such eligible ~~demand response capacity~~ *prudential support* provider, an aggregate limit of the ~~demand response capacity~~ *prudential support* that may be provided by that ~~demand response capacity~~ *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 capacity~~ *prudential support* from other eligible organizations that are still within their respective ~~demand response capacity~~ *prudential support* limits.

5B.4.5 In the event that the ~~demand response capacity~~ *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 capacity~~ *prudential support* held by the *IESO* and the ~~demand response capacity~~ *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 capacity~~ *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 capacity~~ *prudential support* in accordance with section 5B.4.2.1 shall be as follows:

5B.4.6.1 ~~demand response capacity~~ *prudential support* shall be obligations in writing;

5B.4.6.2 ~~demand response capacity~~ *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 capacity~~ *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-responsecapacity*~~ *prudential support* provided by the *market participant*, include setting-off and applying any and all ~~*demand-responsecapacity*~~ *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-responsecapacity*~~ *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-responsecapacity*~~ *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-ResponseCapacity*~~ Prudential Support Obligations

- 5B.5.1 Subject to section 5B.5.2, the *IESO* may reduce the ~~*demand-responsecapacity*~~ *prudential support obligation* of a rated *market participant*, other than a *distributor*, 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-responsecapacity*~~ *market participant*.

Credit Rating Category using Standard and Poor's Rating Terminology	Allowable Reduction in Prudential Support
AA- and above or equivalent	100% of the <i>demand-responsecapacity</i> <i>prudential</i>

	<i>support obligation</i> before allowable reductions
A-, A, A+ or equivalent	Greater of 90% of the <i>demand-response capacity</i> <i>prudential support obligation</i> before allowable reductions or \$37,500,000
BBB-, BBB, BBB+ or equivalent	Greater of 65% of the <i>demand-response capacity</i> <i>prudential support obligation</i> before allowable reductions or \$15,000,000
BB-, BB, BB+ or equivalent	Greater of 30% of the <i>demand-response capacity</i> <i>prudential support obligation</i> before allowable reductions or \$4,500,000
Below BB- or equivalent	0

5B.5.1A Subject to section 5B.5.2, the *IESO* may reduce the ~~*demand-response capacity*~~ *prudential support obligation* of a rated *distributor* 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 capacity*~~ *market participant*.

Credit Rating Category using Standard and Poor's Rating Terminology	Allowable Reduction in Prudential Support
AA- and above or equivalent	100% of the <i>demand-response capacity</i> <i>prudential support obligation</i> before allowable reductions
A-, A, A+ or equivalent	Greater of 95% of the <i>demand-response capacity</i> <i>prudential support obligation</i> before allowable reductions or \$45,000,000
BBB-, BBB, BBB+ or equivalent	Greater of 80% of the <i>demand-response capacity</i> <i>prudential support obligation</i> before allowable reductions or \$22,500,000
BB-, BB, BB+ or equivalent	Greater of 55% of the <i>demand-response capacity</i> <i>prudential support obligation</i> before allowable reductions or \$7,500,000
Below BB- or equivalent	0

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 capacity*~~ *prudential support obligation*.

- 5B.5.3 Where a *market participant's demand-response capacity* 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 capacity* prudential support obligation in accordance with sections 5B.5.5 or 5B.5.5A 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 capacity* prudential support obligation of an unrated *market participant*, other than a *distributor*, by an amount equal to the monetary value prescribed, by the table below:

Good Payment History Categories for Non-Distributors	Allowable Reduction in Prudential Support
≥6 years	Lesser of 50% of the <i>demand-response capacity</i> prudential support obligation before allowable reductions or \$12,000,000
≥5 years, <6 years	Lesser of 30% of the <i>demand-response capacity</i> prudential support obligation before allowable reductions or \$7,500,000
≥4, <5 years	Lesser of 25% of the <i>demand-response capacity</i> prudential support obligation before allowable reductions or \$6,000,000
≥3, <4 years	Lesser of 20% of the <i>demand-response capacity</i> prudential support obligation before allowable reductions or \$4,500,000
≥2, <3 years	Lesser of 15% of the <i>demand-response capacity</i> prudential support obligation before allowable reductions or \$3,000,000
<2 years	0

- 5B.5.5A The *IESO* shall determine the dollar amount of any allowable reduction in the *demand-response capacity* prudential support obligation of an unrated *distributor* by an amount equal to the monetary value prescribed, by the table below:

Good Payment History Categories for Distributors	Allowable Reduction in Prudential Support
≥ 6 years	Lesser of 80% of the demand-response capacity prudential support obligation before allowable reductions or \$14,000,000
≥ 5 years, < 6 years	Lesser of 65% of the demand-response capacity prudential support obligation before allowable reductions or \$9,000,000
≥ 4 , < 5 years	Lesser of 45% of the demand-response capacity prudential support obligation before allowable reductions or \$7,500,000
≥ 3 , < 4 years	Lesser of 35% of the demand-response capacity prudential support obligation before allowable reductions or \$6,000,000
≥ 2 , < 3 years	Lesser of 25% of the demand-response capacity prudential support obligation before allowable reductions or \$4,500,000
< 2 years	0

5B.5.6 The following restrictions shall apply to the provision of reductions in a market participant's ~~demand-response~~capacity prudential support obligation as provided for under sections 5B.5.1, 5B.5.1A, and 5B.5.4:

5B.5.6.1 a market participant shall not be entitled to a reduction in its ~~demand-response~~capacity 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~~capacity prudential support obligation under section 5B.5.4; and

7. Payment Default Procedure

7.1.1 The events of default relating to payment and either prudential support, ~~demand-response security, or demand response or capacity~~ 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 2 - Appendices

1.3 Dispatch Workstations

- 1.3.1 Each market participant other than a boundary entity, ~~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~~ or a capacity auction participant with a 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*,

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

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 and capacity~~ prudential support, as applicable, equal to the proposed transferee's *prudential support obligation* ~~or demand response and capacity~~ 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* and/or ~~*demand response capacity*~~ *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.

18. ~~Demand Response Capacity~~ Auctions

18.1 Purpose of ~~Demand Response Capacity~~ Auctions

18.1.1 The ~~*demand response capacity auctions will acquire*~~ *will procure demand response* auction capacity through a competitive auction.

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

18.2 Participation in ~~Demand Response Capacity~~ Auctions

18.2.1 No person may participate in a ~~*demand response capacity*~~ 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 capacity*~~ auction participant in accordance with section 3 of Chapter 2; and in accordance with the applicable market manual;

18.2.1.2 submitted and ~~*has been approved by the*~~*received* *IESO approval for a qualified capacity*, 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 capacity*~~ auction is to be conducted, provided to the *IESO* a ~~*demand response capacity*~~ 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 capacity*~~ auction participant that is authorized by the *IESO* to participate only in a *capacity auction as an hourly demand response auction resource*:

18.2.2.1 Chapters 4, 5, and 6;

18.2.2.2 Chapter 7 other than this section 18; and

18.2.2.3 Chapters 8 and 10.

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

18.3 Calculation of ~~Demand-Response~~Capacity Auction Deposits

18.3.1 Upon receipt of a ~~demand-response~~capacity auction participant's ~~demand-response~~qualified capacity ~~underin accordance with~~ section 18.2.1.2, the IESO shall determine for each ~~demand-response~~capacity auction participant, a ~~demand-response~~capacity auction deposit for a ~~demand-response~~capacity auction as specified in the applicable market manual.

18.3.2 The IESO shall review the ~~demand-response~~capacity auction deposit of a ~~demand-response~~capacity transferee upon receipt of a request for a ~~demand-response~~capacity obligation transfer in accordance with section 18.9.1. As a result of a transfer request, the IESO may increase the ~~demand-response~~capacity auction deposit of a ~~demand-response~~capacity transferee and the IESO shall notify the ~~demand-response~~capacity transferee of any such increase.

18.3.3 Where the amount of a ~~demand-response~~capacity auction deposit provided by a ~~demand-response~~capacity auction participant exceeds the amount required by the IESO, the IESO shall return the excess amount to the ~~demand-response~~capacity auction participant within five business days of such a request from the ~~demand-response~~capacity auction participant. Otherwise, that amount shall be held by the IESO and shall form part of that ~~demand-response~~capacity auction participant's ~~demand-response~~capacity auction deposit for its participation in a subsequent ~~demand-response~~capacity auction.

18.4 ~~Demand-Response~~Capacity Auction Deposits

18.4.1 A ~~demand-response~~capacity 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~~capacity auction participant.

- 18.4.2 Where all or part of a ~~demand-response~~capacity 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~~by an officer of the *IESO* that a specified amount is owing by the ~~demand-response~~capacity 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~~capacity auction participant shall arrange for and deliver additional ~~demand-response~~capacity auction deposits if the ~~demand-response~~capacity auction participant intends to continue to participate in a ~~demand-response~~capacity auction. If such additional ~~demand-response~~capacity 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~~capacity auction deposit in the form of cash; and
 - 18.4.2.5 by including a letter of credit as part of a ~~demand-response~~capacity auction deposit, the ~~demand-response~~capacity 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~~capacity 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~~capacity 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.

- 18.4.4 In the event a ~~demand-response~~capacity auction participant has not satisfied the applicable eligibility requirements specified in sections 19.2 ~~and 19.3~~, or 19.6 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~~capacity auction participant, shall, at the IESO's sole discretion, forfeit its ~~demand-response~~capacity auction deposit.

19. ~~Demand-Response~~Capacity Market Participants with ~~Demand-Response~~Capacity Obligations

19.1 Purpose

- 19.1.1 This section details the delivery of a ~~demand-response~~capacity obligation.
- 19.1.2 A ~~demand-response~~capacity market participant ~~who~~that receives a ~~demand-response~~capacity obligation shall deliver into the IESO-administered market via resources registered as one of the following resources:
- 19.1.2.1 hourly demand response;~~or~~
- 19.1.2.2 a dispatchable load;~~i~~
- 19.1.2.3 generator.
- 19.1.3 generator authorization types participating in a capacity auction must participate using capacity auction eligible generation resources.

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

- 19.2.1 A ~~demand-response~~capacity market participant is eligible to ~~participate as~~satisfy its capacity obligation with an hourly demand response resource provided that the ~~demand-response~~capacity 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;

- 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 capacity*~~ market participant shall not modify, vary or amend in any material respect any of the features or specifications of any ~~*resource facility*~~ 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* ~~and *capacity 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 capacity*~~ 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 capacity*~~ 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 capacity*~~ 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 capacity*~~ 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 ~~Chapter~~ Chapters 5, ~~other than section 1.2.1 to 1.2.3, 2.3, 2.4, 5.6, 8, 10; and 5.9;~~
- 19.2.4.3 Chapter 7 section 7; ~~and.~~
- ~~19.2.4.4 Chapters 6, 8, 10.~~
- 19.2.5 A *wholesale consumer* that is a *non-dispatchable load* may participate as a ~~*demand response contributor to*~~ 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 capacity~~ market participant is eligible to ~~participate~~ satisfy its capacity obligation as a dispatchable load ~~in satisfying its demand response capacity obligation~~, provided that the ~~demand response capacity~~ market 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 registration requirements for wholesale consumers that are dispatchable loads. The ~~demand response capacity~~ 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 and capacity 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 capacity~~ 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 capacity~~ 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 capacity~~ 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.

19.6 Eligibility Requirements for Capacity Generation Resources

- 19.6.1 A capacity market participant is eligible to satisfy its capacity obligation as a capacity generation resource, provided that the capacity market participant:

- 19.6.1.1 demonstrates to the satisfaction of the IESO that it can provide the capacity obligation, as specified in the applicable market manual;
- 19.6.1.2 is authorized as a generator;
- 19.6.1.3 registers facilities in accordance with the registration requirements applicable to generation facilities. The capacity market participant shall not modify, vary or amend in any material respect any of the features or specifications of any facility without first requesting IESO authorization and approval in accordance with the applicable market manual;
- 19.6.1.4 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;
- 19.6.1.5 has provided prudential support and capacity prudential support in accordance with section 5 of Chapter 2.

PART 5 – IESO BOARD DECISION RATIONALE

Documents presented to the IESO Board of Directors as well as the reasons for adopting the amendments are available [online](#).

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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R02		
Subject:	Transitional Capacity Auction		
Title:	Auction Parameters and Publication		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input checked="" type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	Ch. 7	Appendix:	
Sections:	Ch. 7, 18.5-18.8		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review and Comment	May 15, 2019
2.0	Submitted for Technical Panel Review and Comment	June 18, 2019
3.0	Posted for Stakeholder Review and Comment	June 27, 2019
4.0	Submitted for Technical Panel Vote	August 6, 2019
5.0	Recommended by Technical Panel; Submitted to IESO Board	August 16, 2019
6.0	Approved by IESO Board	August 28, 2019
Approved Amendment Publication Date:		September 5, 2019
Approved Amendment Effective Date:		October 15, 2019

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 evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

The TCA will determine capacity obligations for the obligation periods and the auction clearing price for successful capacity auction participants. For each obligation period, the IESO will establish a demand curve, and the auction offers will be stacked against the demand curve to determine the capacity obligations that minimize total cost while respecting the parameters of the TCA.

Prior to each TCA, the IESO will establish and publish the demand curve parameters in a public, pre-auction report. The pre-auction report will also identify key milestones for participation and zonal constraints. The outcomes of the TCA will be included in both public reports available to the entire marketplace and private reports sent directly to capacity auction participants.

Discussion

Most additions in the rule amendment proposal are defined term changes. Section 18.5.2.4 has been removed as it is no longer required. In this section, the 'transitional capacity auction' defined terms are used to refer specifically to the first TCA to avoid confusion with the ongoing DRA.

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. No responses to feedback were received pertaining to this proposal.

Specific changes to the market rules are listed below. There are five additional rule amendment packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT

18.5 ~~Demand Response~~Transitional Capacity Auction Parameters

- 18.5.1 The IESO shall conduct ~~a demand response auction on an annual basis~~capacity auctions to ~~procure demand response~~acquire capacity for ~~a one-year period~~commitment periods. In each ~~demand response~~capacity auction the IESO shall ~~procure demand response~~acquire auction capacity for each ~~commitment~~obligation 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~~transitional capacity auction, including the following ~~demand response~~transitional capacity 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~~transitional capacity auction reference price;
 - 18.5.2.3 a maximum and minimum ~~demand response~~transitional capacity auction clearing price;
 - 18.5.2.4 ~~a minimum demand response capacity limit that a demand response auction shall clear; [Intentionally left blank – section deleted]~~
 - 18.5.2.5 a maximum ~~demand response~~capacity limit at the maximum ~~demand response~~transitional capacity auction clearing price that a ~~demand response~~transitional capacity auction shall clear; and
 - 18.5.2.6 a maximum ~~demand response capacity limit that a demand response auction~~ capacity limit that a transitional capacity auction shall clear.
- 18.5.3 The IESO shall define ~~demand response~~capacity auction zonal constraints for each ~~demand response~~transitional capacity 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~~capacity auction:

- 18.5.4.1 the deadline to submit the amount of ~~demand-response~~qualified capacity the ~~demand-response~~capacity auction participant is willing to provide pursuant to section 18.2.1.2;
- 18.5.4.2 the deadline for a ~~demand-response~~capacity auction participant to submit a ~~demand-response~~capacity auction deposit in accordance with section 18.2.1.3;
- 18.5.4.3 the dates in which a ~~demand-response~~capacity auction participant may submit ~~demand-response~~transitional capacity auction offers for a ~~demand-response~~capacity auction;
- 18.5.4.4 the period over which the IESO shall conduct the ~~demand-response~~transitional capacity auction; and
- 18.5.4.5 the date of ~~demand-response~~transitional capacity auction post-auction reporting in accordance with sections 18.8.1 and 18.8.2.

18.6 ~~Demand-Response~~Capacity Auction Offers

- 18.6.1 A ~~demand-response~~capacity auction offer:
 - 18.6.1.1 may be submitted or revised by the ~~demand-response~~capacity 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~~obligation periods for which a ~~demand-response~~capacity auction participant has submitted a ~~demand-response~~capacity 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~~capacity auction offer shall only be submitted in respect of a given ~~demand-response~~capacity auction if:
 - 18.6.2.1 the ~~demand-response~~capacity auction participant complies with the ~~demand-response~~capacity auction ~~participation~~participant requirements in section 18.2.1; and
 - 18.6.2.2 the ~~demand-response~~capacity auction participant has not been disqualified from full or partial participation in the ~~demand-response~~capacity auction ~~in accordance with section, pursuant to sections~~ 19.4.8, 19.5.4 ~~and the applicable market manual, or~~ 19.6.4.

- 18.6.3 A ~~demand-response~~capacity auction offer may include up to twenty price-quantity pairs for each ~~commitment~~obligation period and shall comply with the following:
- 18.6.3.1 the ~~demand-response~~capacity auction offer shall be for and applicable over an entire ~~commitment~~obligation period associated with a ~~demand-response~~capacity auction;
 - 18.6.3.2 the ~~demand-response~~ capacity 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~~obligation period associated with that ~~demand-response~~transitional capacity auction;
 - be greater than or equal to \$0.00/MW-day;
 - not exceed the applicable maximum ~~demand-response~~transitional capacity auction clearing price; and
 - increase as the associated ~~demand-response~~capacity auction offer quantity increases.
 - 18.6.3.3 the ~~demand-response~~capacity 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~~capacity auction participant is willing to provide in accordance with section 18.2.1.2; and
 - 18.6.3.4 the ~~demand-response~~ capacity auction offer shall indicate whether the ~~demand-response~~ capacity auction participant is willing to clear an capacity 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 Transitional Capacity Auction Clearing Prices and Quantities**

- 18.7.1 The IESO shall determine a ~~demand-response~~transitional capacity auction demand curve to be utilized for each ~~commitment~~obligation period in an auction

- year, based upon the ~~demand-response~~transitional capacity auction 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~~transitional capacity auction, determine for each ~~commitment~~obligation period the ~~demand-response~~transitional capacity auction clearing price in accordance with the applicable *market manual*.
- 18.7.3 The IESO shall, in each ~~demand-response~~transitional capacity auction, determine for each ~~commitment~~obligation period the ~~demand-response~~capacity obligation for each ~~demand-response~~capacity 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~~transitional capacity auction, determine for each ~~commitment~~obligation period associated with the ~~demand-response~~transitional capacity auction:
- 18.7.4.1 the ~~demand-response~~transitional capacity 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~~capacity auction participant, in accordance with this section 18.7.
- ~~in accordance with this section 18.7.~~
- 18.7.5 If two or more ~~demand-response~~capacity auction participants submit a ~~demand-response~~capacity auction offer at the same price, for the last available quantity, the ~~demand-response~~capacity auction offer with the earlier time stamp shall be selected as the successful ~~demand-response~~capacity 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~~capacity auction, *publish* the following in accordance with the applicable *market manual*:
- 18.8.1.1 the ~~demand-response~~transitional capacity auction clearing price;
- 18.8.1.2 the amount of ~~demand-response~~capacity that has been ~~procured~~acquired; in each electrical zone;

18.8.1.3 those ~~demand-response-capacity~~ auction participants who received a ~~demand-response-capacity obligation~~ and all respective ~~demand-response-capacity obligations~~; and

18.8.1.4 the qualified ~~demand-response~~auction capacity of each ~~demand-response~~capacity auction participant.

18.8.2 The IESO shall, following the conclusion of a ~~demand-response~~capacity auction, issue post-auction reports to each ~~demand-response~~capacity auction participant by the date specified in the pre-auction report, to detail the ~~demand-response~~ capacity auction offers that have cleared in the ~~demand-response~~capacity auction and the associated ~~demand-response-capacity obligations~~ for each ~~commitment~~obligation period in accordance with the applicable market manual.

PART 5 – IESO BOARD DECISION RATIONALE

Documents presented to the IESO Board of Directors as well as the reasons for adopting the amendments are available [online](#).

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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R03		
Subject:	Transitional Capacity Auction		
Title:	Energy Market Participation		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input type="checkbox"/> Deletion	<input checked="" type="checkbox"/> Addition
Chapter:	3, 7	Appendix:	
Sections:	Chapter 3 – 6.3, 6.3A, & 6.5, Chapter 7 - 3.4, 18.9, 19.4, 19.5, 19.7 (new)		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Draft for Stakeholder Review and Comment	May 15, 2019
2.0	Submitted for Technical Panel Review and Comment	June 18, 2019
3.0	Posted for Stakeholder Review and Comment	June 27, 2019
4.0	Submitted for Technical Panel Vote	August 6, 2019
5.0	Recommended by Technical Panel; Submitted to IESO Board	August 16, 2019
6.0	Approved by IESO Board	August 28, 2019
Approved Amendment Publication Date:		September 5, 2019
Approved Amendment Effective Date:		October 15, 2019

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 evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

Capacity market participants with a capacity obligation will be required to deliver on their capacity obligation through participation in the energy market as an hourly demand resource, dispatchable load or non-committed generator. These resource types will be required to submit offers into the energy market (day-ahead and real-time) for every hour of the availability window.

Discussion

Minor changes have been proposed to Chapter 3 to reflect changes to defined terms and to show the shift from demand response programs to the Transitional Capacity Auction.

Significant changes have been proposed for Chapter 7. Defined terms have been updated to show the shift from demand response programs to the Transitional Capacity Auction. New sections have been added in Section 18.9 to further describe qualified capacity, and to provide more clarification on the transfer of auction capacity. Section 19.7 - Energy Market Participation for Capacity Generation Resources has been added. This section outlines the requirements for Market Participants with Capacity Generation Resources to participate in the energy market.

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. In response to stakeholder feedback, this proposal contains a new section, 18.9.1.5C to allow a transfer of a capacity obligation between zones where the same capacity market participant is both the capacity transferor and the capacity transferee. Additionally, stakeholders noted an incorrect reference in sections 19.7.8 and 19.7.10 which has been corrected in this version.

Specific changes to the market rules are listed below. There are five additional rule amendment

PART 3 – EXPLANATION FOR PROPOSED AMENDMENT

packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT**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, ~~demand response security, or demand response~~ or capacity 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, ~~demand response security, or demand response~~ or capacity prudential support;
 - 6.3.1.3 fails to provide and maintain prudential support, ~~demand response security, or demand response~~ capacity 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, ~~demand response security, or demand response~~ or capacity prudential support provider.
- 6.3.3 Where a *market participant* or a person providing prudential support, ~~demand response security, or demand response~~ or capacity 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*, ~~demand response security, or demand response~~or capacity *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*, ~~demand response security, or demand response~~or capacity *prudential support* is due to expire or terminate and has not been replaced as required under section 5.2.5, 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*, ~~demand response security, or demand response~~capacity *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*.

6.3A Suspension of a Market Participant

- 6.3A.2 The *IESO* shall *publish* the details of the *suspension order* and provide a copy of the *suspension order* to the *OEB* and the *transmitter, distributor and/or* other *market participant* to whose *facilities* the suspended *market participant* is connected.
- 6.3A.4 The *IESO* may do one or more of the following to give effect to a *suspension order*:
 - 6.3A.4.1 reject any *bid, offer, TR bid* or *TR offer* submitted by the *suspended market participant*;
 - 6.3A.4.2 set-off any amounts otherwise due to the *suspended market participant* against any amounts owed by the *suspended market participant* under the *market rules*;
 - 6.3A.4.3 issue a *disconnection order* to the *transmitter, distributor and/or* other *market participant* to whose *facilities* the *suspended market participant's* *facilities* are connected and provide a copy to the *OEB*; or

- 6.3A.4.4 make such further order or issue such directions to the *suspended market participant* as the *IESO* determines appropriate.
- 6.4.2 The *IESO* shall *publish* the details of the *termination order* and provide a copy of the *termination order* to the *OEB* and to the *transmitter, distributor and/or other market participant* to whose *facilities* the terminated *market participant's facilities* are connected.
- 6.4.3 When the *IESO* issues a *termination order*, it may at the same time, if it has not already done so, issue a *disconnection order* to the *transmitter, distributor and/or other market participant* to whose *facilities* the terminated *market participant's facilities* are connected and provide a copy to the *OEB*.

6.5 De-Registration of a Market Participant's Facilities

- 6.5.3 If the *IESO* deregisters some or all of a *market participant's registered facilities*, it may at the same time issue a *disconnection order* to the relevant *transmitter, distributor and/or other market participant* to whose *facilities* the *market participant's facilities* which is subject of the deregistration are connected and provide a copy to the *OEB*.

Chapter 7

3.4 The Form of Dispatch Data

- 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~~obligation period in accordance with the applicable market manual.

18.9 ~~Demand Response~~ Capacity Obligation Transfers

- 18.9.1 A ~~demand response~~capacity transferor may, subject to *IESO* approval and in accordance with the applicable *market manual*, request a transfer of all or a portion of its ~~demand response~~-capacity obligation to a ~~demand response~~capacity transferee provided that the following criteria are met:
- 18.9.1.1 the quantity to be transferred does not exceed the difference between the ~~demand response~~capacity transferee's qualified ~~demand response~~ capacity, and its existing ~~demand response~~-capacity obligation for the applicable ~~commitment~~obligation period;

- 18.9.1.1.1 for the purposes of 18.9.1.1, the *qualified capacity* refers to the *qualified capacity* received by the *capacity transferee* in the *obligation period* for which the quantity is being transferred.
- 18.9.1.2 the ~~*demand-response capacity*~~ *transferor* provides written confirmation to the *IESO* from the ~~*demand-response capacity*~~ *transferee* of its willingness to accept the transfer of a ~~*demand-response capacity*~~ *obligation* from the ~~*demand-response capacity*~~ *transferor*;
- 18.9.1.3 the *capacity obligation* transfer shall consist of the same attributes (e.g. *physical or virtual*) and be of the same *resource type*, as detailed in the applicable *market manual*, as the ~~*demand-response capacity*~~ *transferor's demand-response capacity obligation*; ~~and~~
- 18.9.1.4 the quantity to be transferred is in increments of 0.1MW, and the resulting ~~*demand-response capacity*~~ *obligations* for both the ~~*demand-response capacity*~~ *transferor* and ~~*demand-response capacity*~~ *transferee* following the transfer shall be 0 MW, or greater than or equal to 1 MW;
- 18.9.1.5 the *capacity obligation* to be transferred is within the same zone;
- 18.9.1.6 if the *capacity obligation* was acquired through a *transitional capacity auction*, the *capacity obligation* may be transferred between zones where the *transitional capacity auction clearing prices* in the two respective zones are equal to the Ontario-wide *transitional capacity auction clearing price*;
- 18.9.1.7 For the purposes of 18.9.1.6, the *capacity transferor* and the *capacity transferee* may be the same *capacity auction participant*;
- 18.9.1.8 *capacity obligation* transfers must not result in the receiving zone reaching a *capacity auction zonal constraint*.
- 18.9.2 For each transfer request that satisfies the criteria in section 18.9.1, the *IESO* shall determine the ~~*demand-response capacity*~~ *transferee's* revised ~~*demand-response capacity*~~ *auction deposit* and/or ~~*demand-response capacity*~~ *prudential support obligation*, as applicable, in accordance with section 18.3.2 and section 5B.3.3 of Chapter 2.
- 18.9.3 The ~~*demand-response capacity*~~ *transferee* shall provide the *IESO*, within five *business days* of receiving notification from the *IESO* or within such a longer period of time as may be agreed between the *IESO* and the ~~*demand-response capacity*~~ *transferee*, any additional ~~*demand-response capacity*~~ *auction deposit* and/or ~~*demand-response capacity*~~ *prudential support obligation* that may be required as a result of a transfer request.

- 18.9.4 After the revised ~~demand-response~~capacity auction deposits and/or ~~demand-response~~capacity prudential support obligations have been satisfied by the ~~demand-response~~capacity transferee, the IESO shall notify the ~~demand-response~~capacity transferor and ~~demand-response~~capacity transferee of its approval or rejection, and the IESO shall publish updated post-auction reports pursuant to section 18.8.

19.4 Energy Market Participation for Hourly Demand Response Resources

- 19.4.1 A ~~demand-response~~capacity 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, or if the applicable pre-dispatch shadow price for an hourly demand response resource is equal to or greater than the standby notice price threshold, determined by the IESO, for at least one hour during the dispatch day availability window, the IESO shall issue a standby notice to the applicable ~~demand-response~~capacity 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~~capacity market participant by 07:00 EST, the ~~demand-response~~capacity market participant shall remove their bids for the hourly demand response resource as soon as practicable and before 9:00 EST. A ~~demand-response~~capacity 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~~capacity 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~~capacity 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 one hour during the dispatch day availability window.
- 19.4.5 If a ~~demand-response~~capacity market participant receives an activation notice pursuant to section 19.4.4, the ~~demand-response~~capacity 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 capacity~~ market participant shall notify the IESO as soon as practicable.

- 19.4.6 A ~~demand-response capacity~~ 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 capacity~~ market participant does not comply with an activation notice pursuant to this section 19, in accordance with the applicable market manual. The ~~demand-response capacity~~ market participant may also be subject to compliance actions in accordance with section 6 of Chapter 3.
- 19.4.7 A ~~demand-response capacity~~ 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 capacity~~ auction any ~~demand-response capacity~~ market participant's hourly demand response resource participant 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-In the event of a material reduction in the demand response capacity of an hourly demand response resource, associated with a capacity obligation acquired through a transitional capacity auction, the capacity market participant shall submit non-performance events, provided that the demand-response market participant notifies~~ notify the IESO as per the procedures and criteria specified in the applicable market manual.
- 19.4.9A In the event of a material reduction in the demand response capacity of an hourly demand response resource, associated with a capacity obligation acquired through a demand response auction, the demand response market participant shall notify the IESO as per the procedures and criteria specified in the applicable market manual.
- 19.4.10 A ~~demand-response capacity~~ 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~~ related to an hourly demand response resource in an obligation 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~~capacity 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~~ obligation period to verify that a ~~demand-response~~-capacity obligation is deliverable by the ~~demand-response~~capacity market participant.
- 19.4.12 If a ~~demand-response~~capacity market participant fails activation testing performed pursuant to section 19.4.11, the ~~demand-response~~capacity 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~~capacity market participant day-ahead notification of test activations pursuant to 19.4.11 and the test activation shall occur within the availability window of a ~~commitment~~an obligation 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~~capacity 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~~transitional capacity auction any ~~dispatchable-load-facility~~capacity

market participant 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 obligation~~ period to verify that a ~~demand response~~ capacity obligation is deliverable by the ~~demand response~~ capacity market participant.
- 19.5.8 If a ~~demand response~~ capacity market participant fails activation testing performed pursuant to section 19.5.7, the ~~demand response~~ capacity 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~~ an obligation 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~~ an obligation period pursuant to this section 19.5.

19.7 Energy Market Participation for Capacity Generation Resources

- 19.7.1 A capacity market participant satisfying its capacity obligation with a capacity generation resource shall be eligible for an availability payment, in

accordance with this section and 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

19.7.2 The IESO shall schedule a *capacity generation resource* in the *energy market*, and issue *dispatch instructions* in accordance with Chapter 7.

19.7.3 A *capacity generation resource* shall comply with *IESO dispatch instructions* in accordance with Chapter 7.

19.7.4 The IESO may disqualify from future participation in the *transitional capacity auction* any *capacity market participant* that fails to inject energy when called upon in accordance with this section 19.

Outage Notification Requirements for *Capacity Generation Resource* with a Capacity Obligation

19.7.5 Each *capacity generation resource* shall comply with the *outage* notification requirements of Chapter 5.

19.7.6 A *capacity generation resource* shall reduce its *offer* to reflect the maximum capacity that it reasonably expects it can inject due to any *outage*.

Activation Testing for Generation Resources

19.7.7 The IESO may, in accordance with the applicable *market manual*, direct a *capacity market participant* to perform activation testing for each *capacity generation resource* up to a maximum of two activation tests per *obligation period* to verify that a *capacity obligation* can be satisfied by the *capacity market participant*.

19.7.8 If a *capacity market participant* fails an activation test performed pursuant to section 19.7.7, the *capacity 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.

19.7.9 The IESO shall provide a *capacity generation resource* day-ahead notification of test activation and the test activation shall occur within the *availability window* of an *obligation period*.

19.7.10 The test activation shall occur in accordance with the *dispatch instructions* specified in this section 19.7.

PART 5 – IESO BOARD DECISION RATIONALE

Documents presented to the IESO Board of Directors as well as the reasons for adopting the amendments are available [online](#).



Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R04		
Subject:	Transitional Capacity Auction		
Title:	Non-Performance Charges and Settlements		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input checked="" type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	Ch. 9	Appendix:	
Sections:	4.7J, 4.8		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

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1.0	Draft for Stakeholder Review and Comment	May 15, 2019
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4.0	Submitted for Technical Panel Vote	August 6, 2019
5.0	Recommended by Technical Panel; Submitted to IESO Board	August 16, 2019
6.0	Approved by IESO Board	August 28, 2019
Approved Amendment Publication Date:		September 5, 2019
Approved Amendment Effective Date:		October 15, 2019

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 evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

The following proposed rule changes evolve the settlement processes of the DRA into the TCA.

Discussion

Minor changes have been proposed to reflect changes to defined terms and to show the shift from demand response programs to the Transitional Capacity Auction.

A new sub-section was added (4.7J.2.1) to make a capacity market participant with a capacity generation resource subject to availability payments.

Lastly, sub-sections were removed from 4.8.3 and 4.8.4 to remove references to the CBDR and the former DR Pilots program which no longer exist.

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. No responses to feedback were received pertaining to this proposal.

Specific changes to the market rules are listed below. There are five additional rule amendment packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT

Chapter 9

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*~~*capacity* market participant, in the manner specified in the applicable market manual.

4.7J.2 A ~~*demand response*~~*capacity* 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*~~*capacity* market participant does not satisfy the requirements of its ~~*demand response*~~ capacity obligation:

~~Demand Response~~Capacity Obligation- Availability Charges

4.7J.2.1 A ~~*demand response*~~*capacity* 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*.

4.7J.2.1A A capacity market participant participating with a capacity generation resource shall be subject to an availability charge for every hour of the availability window in which it fails to submit energy offers in the amount of their capacity obligation in the day-ahead commitment process or in the pre-dispatch hour specified in Market Manual 5.5

~~Demand Response~~Capacity Obligation Dispatch Charges

4.7J.2.2 A ~~*demand response*~~*capacity* 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~~Capacity Obligation Administration Charges

4.7J.2.3 A ~~*demand response*~~*capacity* 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 Obligation-Capacity Charges

- 4.7J.2.4 Subject to ~~sections~~section 19.4.5 ~~and 19.4.12~~ of Chapter 7, a ~~demand response capacity~~ market participant participating with an hourly demand response resource that fails to ~~provide~~satisfy its capacity ~~through obligation in response to~~ an activation ~~notice or activation~~ test, shall be subject to a ~~demand response capacity~~ charge.
- 4.7J.2.5 Subject to section ~~19.7.5.83~~ of Chapter 7, a ~~demand response capacity~~ market participant participating with a ~~either a dispatchable load or a capacity generation resource~~ that fails to ~~provide~~satisfy its capacity ~~through obligation in response to~~ an activation test shall be subject to a ~~demand response capacity~~ charge.
- 4.7J.3 A ~~demand response capacity~~ market participant or a ~~demand response capacity~~ 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~~an obligation period.
- 4.7J.4 At any time, the IESO may audit any submitted ~~demand response~~ measurement data and supporting information and a ~~demand response capacity~~ 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 capacity~~ market participant any resulting over or under payment, as applicable. Any amounts recovered or distributed to a ~~demand response capacity~~ market participant shall be distributed to or recovered from market participants in accordance with sections 4.8.3 and 4.8.4.

4.8 Additional Non-Hourly Settlement Amounts

- 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 ~~[Intentionally left blank – section deleted] any compensation for demand response market participants paid in that energy market billing period by the IESO pursuant to section 4.7H;~~
- 4.8.3.2 ~~[Intentionally left blank – section deleted] 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 capacity~~ 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 ~~[Intentionally left blank – section deleted]any adjustments to demand response market participant payments pursuant to section 4.7H;~~
 - 4.8.4.2 ~~[Intentionally left blank – section deleted]any adjustments to demand response market participant payments pursuant to section 4.7I; and~~
 - 4.8.4.3 any adjustments to ~~demandcapacity~~ ~~response~~-market participant payments pursuant to section 4.7J.

PART 5 – IESO BOARD DECISION RATIONALE

Documents presented to the IESO Board of Directors as well as the reasons for adopting the amendments are available [online](#).

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Market Rule Amendment Proposal

PART 1 – MARKET RULE INFORMATION

Identification No.:	MR-00439-R05		
Subject:	Transitional Capacity Auction		
Title:	Removal of DR Pilots and CBDR Sections		
Nature of Proposal:	<input type="checkbox"/> Alteration	<input checked="" type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	Ch. 2, 7, 9	Appendix:	
Sections:	Ch. 2 (section 5A, Appendix 2.2), 7 (sections 16, 17), Ch. 9 (section 4)		
Sub-sections proposed for amending:			

PART 2 – PROPOSAL HISTORY

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6.0	Approved by IESO Board	August 28, 2019
Approved Amendment Publication Date:		September 5, 2019
Approved Amendment Effective Date:		October 15, 2019

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 evolve the Demand Response Auction (DRA) into the Transitional Capacity Auction (TCA) to address capacity needs in Ontario.

Over its four auctions, the DRA has proven successful in driving down capacity costs and increasing competition. Enhancing the IESO's approach to capacity auctions this year by opening participation to other resources is another step toward a more competitive electricity marketplace; it moves Ontario's electricity marketplace down the path of efficiency, competition, and transparency – the key principles of the market renewal efforts.

This proposal will be discussed as part of the Transitional Capacity Auction stakeholder engagement initiative before consideration by the Technical Panel.

Further information on the Transitional Capacity Auction stakeholder engagement is found [here](#).

Background

While reviewing the market rules for TCA Phase 1 changes, there were sections of the rules that were no longer necessary to keep, relating to the Capacity Based Demand Response (CBDR) program, and the former Demand Response Pilots program. The sections in this package, detail the sections of the market rules that will be removed as part of this clean-up effort.

Discussion

This market rule amendment proposal was first circulated to stakeholders and market participants who are participating in the Transitional Capacity Auction stakeholder engagement. No responses to feedback were received pertaining to this proposal.

Each section listed below will be deleted or changed, to remove references to the former Demand Response Pilots program and CBDR. Specific changes to the market rules are listed below. There are five additional rule amendment packages that form the entirety of the proposed rule changes for the TCA.

PART 4 – PROPOSED AMENDMENT

Chapter 2

5A. Capacity Based Demand Response Program – Demand Response Security Requirements

- All sub-sections to be removed

Chapter 2 - Appendices

Appendix 2.2

~~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.~~

~~1.1.6A [Intentionally left blank – section deleted]~~

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

16. Demand Response Pilot Program

All sections to be removed

17. Capacity Based Demand Response Program

All sections to be removed

Chapter 9

4.7H Capacity Based Demand Response Program

- All sub-sections to be removed

4.7I Demand Response Pilot Program

- All sub-sections to be removed

PART 5 – IESO BOARD DECISION RATIONALE

Documents presented to the IESO Board of Directors as well as the reasons for adopting the amendments are available [online](#).

Agenda Item Summary

Date of Meeting:	August 28, 2019
Presenter:	Leonard Kula, COO and VP, PA&O Barbara Ellard, Director, Markets & Procurement Alexandra Campbell, Director, Market Renewal Capacity Integration David Short, Director, Transitional Capacity Auction Project
Agenda Item:	Market Renewal Program/Transitional Capacity Auction Update
Purpose of item: ¹	Education for a strategic issue
Executive Summary: ²	Attached is a presentation on the Energy work stream of the Market Renewal Program and the IESO's Transitional Capacity Auction (TCA). The purpose of the presentation is to provide a summary of the work that has been completed on the Energy High-Level Design as well as an update to the Board of Directors on work related to the IESO's Transitional Capacity Auction, including what has been completed and what is next. The presentation also includes an update on the Energy Business Case.
Significant Issues, Risks and Opportunities: ³	<p>Risk - the Energy work stream of Market Renewal has completed the High-Level Design phase and is moving forward with Detailed Design. There are key linkages and stakeholder focus areas that will need to be managed effectively to ensure progress.</p> <p>Risk/opportunity – it is very difficult to achieve substantial consensus on major market design changes. However, significant design flaws with the existing Energy market design, a solid High-Level Design plus effective stakeholder engagement has allowed us to achieve substantial consensus at the end of the Energy High-Level Design phase.</p>

¹ State the purpose of the agenda item: a) Education for a strategic issue, b) soliciting Feedback, or c) a Decision/Recommendation item.

² Provide concise summary of issue, identifying why the item is important to the Board, with distilled analysis, and Management's recommendation.

³ Provide concise description of significant issues, risks and opportunities.

Materials⁴:

Presentation “Market Renewal Program and Transitional Capacity Auction Update – August 2019”

⁴ Materials (memo, slides, and reports) are to be concise, providing brief analysis of salient points, risks/opportunities, and Management’s recommendations. If detailed report/ background information is necessary, it should be provided in an appendix with specific direction to key sections.

Market Renewal Program / Transitional Capacity Auction Update

Prepared for IESO Board of Directors

August 28, 2019

Purpose and Overview (1 of 2)

- **Purpose:** Information / education
 - To provide an update on the Energy work stream as we close out the High-Level Design (HLD) phase
 - At the October meeting of the Board of Directors, we will seek approval of the three Energy high-level design documents and the associated business case
 - To provide an update on work related to the Transitional Capacity Auction (TCA) and next steps for Capacity Auction development
 - In another agenda item, we are seeking Board approval for TCA Phase 1 Market Rule changes

Purpose and Overview (2 of 2)

- **Overview:**

- Energy

- Background
 - Stakeholder engagement on the HLD
 - Business case development
 - Next steps

- Capacity

- Background
 - TCA Phase I
 - TCA Phase II
 - TCA project risks
 - Capacity Auction next steps

Definitions

- **Capacity** is an amount of electricity that is available to be generated or reduced when needed. Capacity needs fluctuate seasonally as demand rises and falls. To balance electricity supply and demand throughout the day, month, or year, there must be adequate capacity to meet the peak demands.
 - Capacity can be thought of as ‘availability’ to produce electricity
 - Capacity is the instantaneous capability or *power* (MW).
- **Energy** is the power simultaneously produced by suppliers and consumed by consumers. It is the key product in the electricity system. Energy is the quantity of electricity needed to match supply and demand in Ontario second-by-second over a period of time.
 - Energy can be thought of as ‘production’ of electricity over a period of time
 - Energy is *power delivered or consumed over time* (MWh).

ENERGY

Background (1 of 4)

- The IESO is responsible for the reliability of Ontario's electricity grid and for administering Ontario's electricity markets:
 - We have to dispatch the power system reliably and administer the energy markets, in accordance with our obligations in the objects of the IESO in the Energy Act, guided by a large number of North American Electric Reliability Corporation (NERC) and Northeast Power Coordinating Council (NPCC) standards
 - The energy market is the tool we use to deliver reliable system operation. It provides an open and transparent platform to schedule and dispatch resources using a competitive and consistent approach

Background (2 of 4)

- The existing market tools and incentives are largely unchanged since market opening in 2002 and require significant ongoing supplemental processes to ensure reliability
 - The existing tools and processes have known design flaws that have been well-documented by the Market Surveillance Panel (MSP) and Auditor General (AG)
 - The existing design is resulting in higher system costs and gaming opportunities
 - A number of incremental changes have been made over the years - largely to manage known inefficiencies - but more foundational changes are needed to prepare the IESO for operating the system of the future

Background (3 of 4)

The Energy work stream is focused on renewing two areas of Ontario's existing electricity market:

Pricing

- Ontario's two-schedule pricing design is unique
- Prices do not reflect system needs
- Results in sub-optimal investment, supply, and consumption decisions
- Requires large out-of-market payments to ensure reliable operations. These payments are inefficient and have been the target of gaming
- Design has prevented important improvements to the market

Dispatch and Commitments

- Approach to optimizing the dispatch schedule is flawed
- Requires supplemental processes and out-of-market actions to ensure reliable operations
- Process to commit gas generators for operations is not transparent and has been subject to unsatisfactory cost recovery
- Design flaws will result in greater reliability challenges as Ontario emerges from surplus conditions

Background (4 of 4)

Day-Ahead Market (DAM)

- Commits energy resources the day before operation and stabilizes real-time markets

Real-Time Unit Commitment (ERUC)

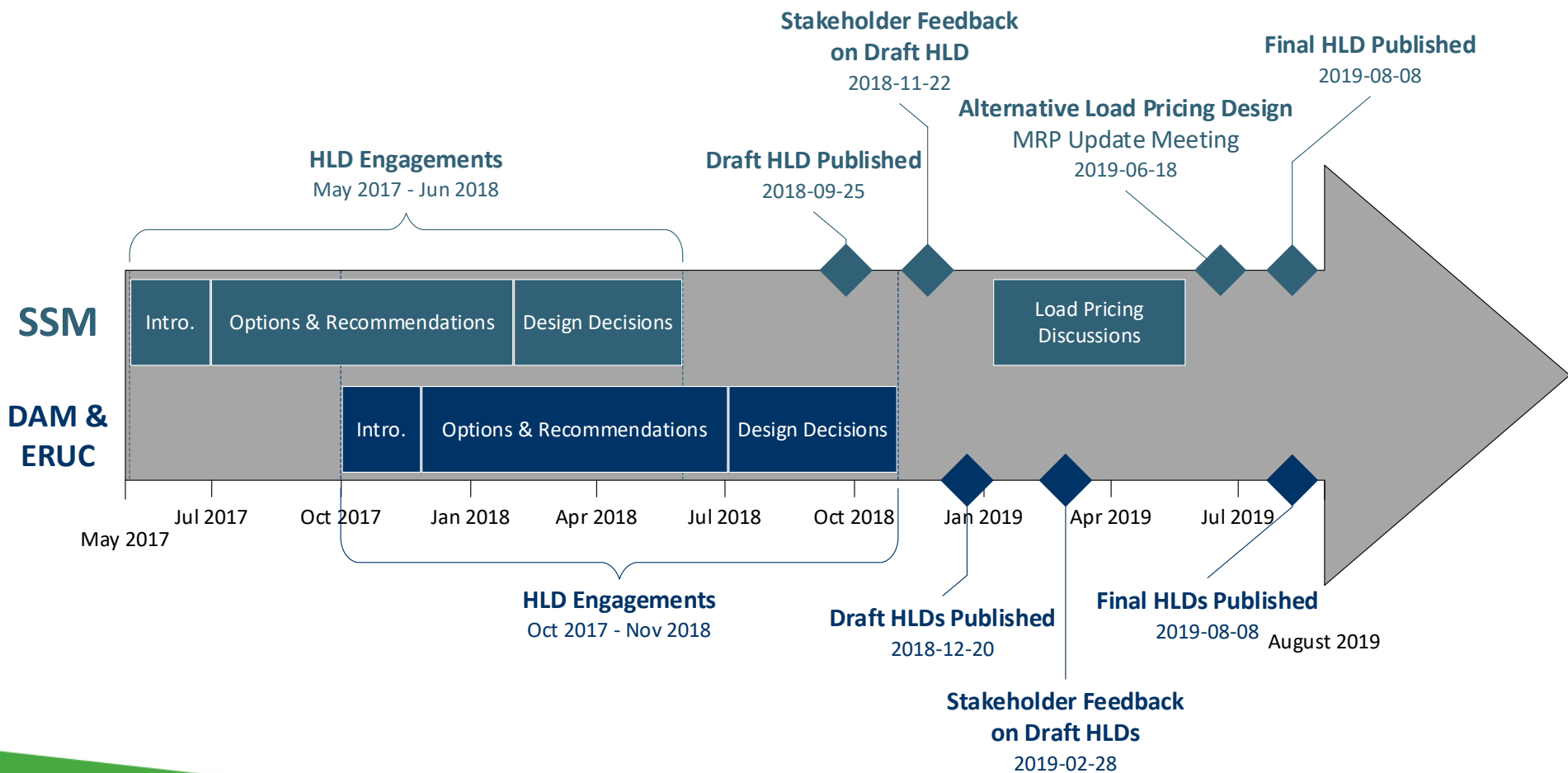
- Ensures optimal mix of resources are committed at lowest cost, 3-24 hours before operation

Single Schedule Market (SSM)

- Reduces costs by ensuring energy prices transparently reflect global and local system constraints

Energy HLD: Stakeholder Engagement

Energy HLD: Stakeholder Engagement Timeline



Energy HLD: Stakeholder Feedback

- Stakeholder feedback on the draft HLDs included general support for the progress and direction of the Energy work stream as well as some areas of concern
 - Stakeholders expressed concerns about the way we proposed to calculate prices for grid-connected wholesale load, which contributed to further engagement in various forums
- In response to stakeholder feedback, the IESO developed an alternative design for load pricing
 - We presented the alternative load pricing design at the June MRP update meeting and reviewed stakeholder feedback at the July MRP update meeting
 - While the alternative design is less efficient, it provides loads with greater optionality to manage uncertainty and risks

Energy Work Stream: Closing out HLD

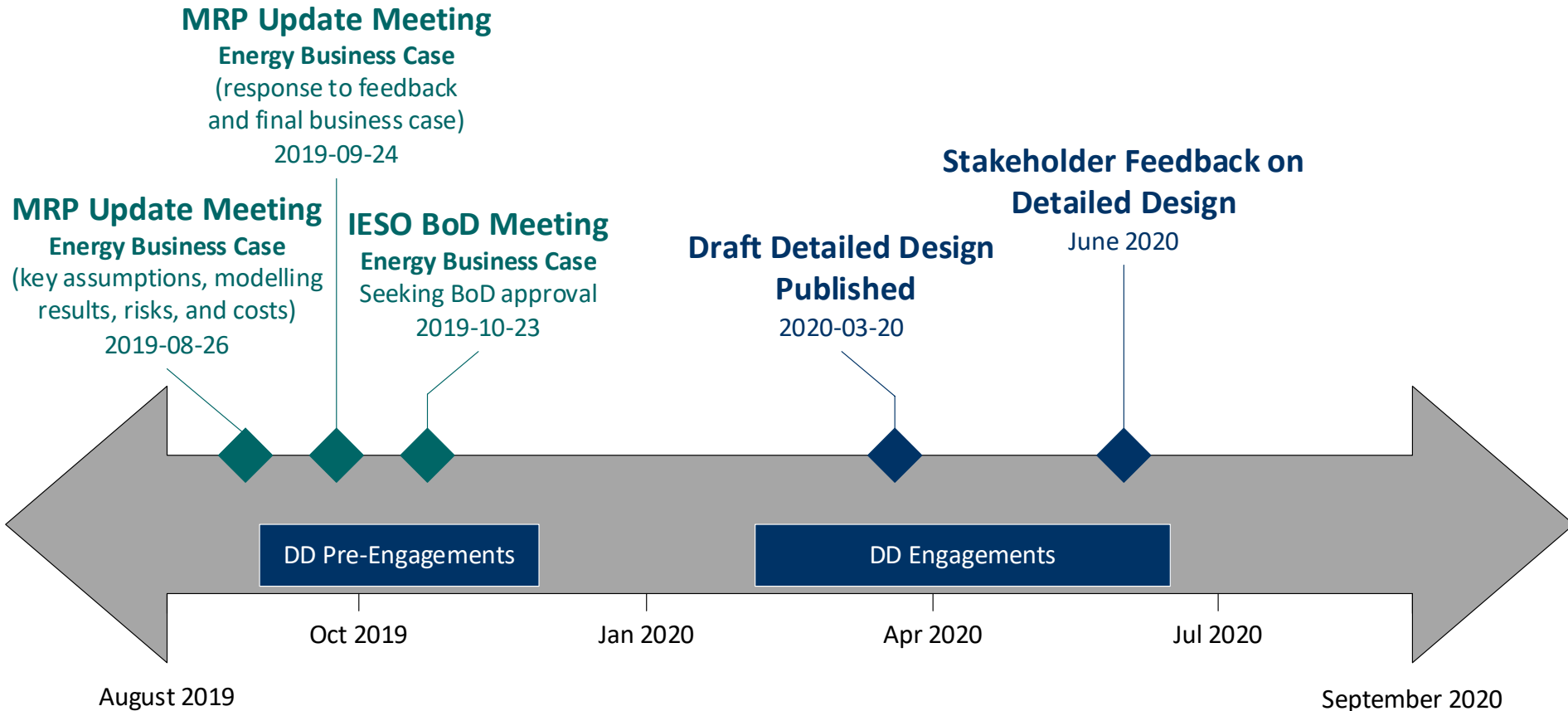
- We have updated the draft Energy HLDs to reflect stakeholder feedback, including the alternative load pricing design, and other points of clarification
 - Final HLDs were posted on August 8, 2019
 - The HLDs serve as the building blocks for the Energy Detailed Design (DD), including stakeholder engagements set to begin later this year
- With the release of the HLDs, the engagement on the high-level design phase of the Energy work stream ends

Achieving stakeholder support for Energy HLDs is a significant accomplishment...and reflects a lot of hard work from many in the IESO

Development of the Energy Business Case

- The Energy business case will focus on why changes to Ontario's energy market are required, addressing known flaws and inefficiencies, and value of creating a new platform to enable future market improvements and evolution
- The Energy business case will also include an assessment of the net benefits of the energy market enhancements over the first 10 years after implementation offset by the cost of implementing the changes
 - The benefit analysis will calculate the market improvements related to unit commitments, intertie transactions, and pricing and dispatch
 - A number of other benefits will be assessed qualitatively
 - Note: Ontario will continue to realize benefits beyond 10 years
- We have engaged stakeholders on the development of the Energy stream business case to aid understanding and build support

Next Steps: Energy Work Stream



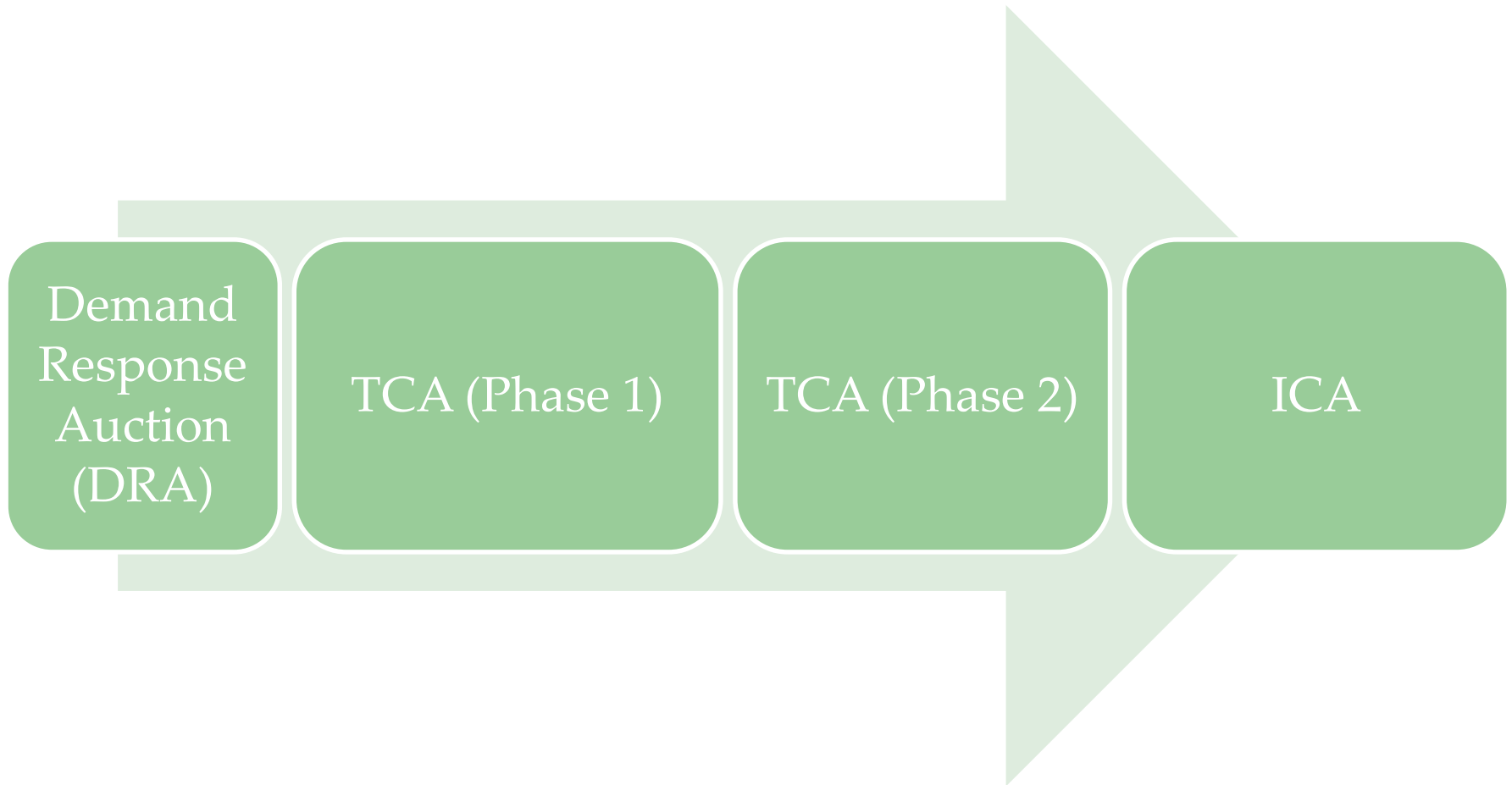
CAPACITY



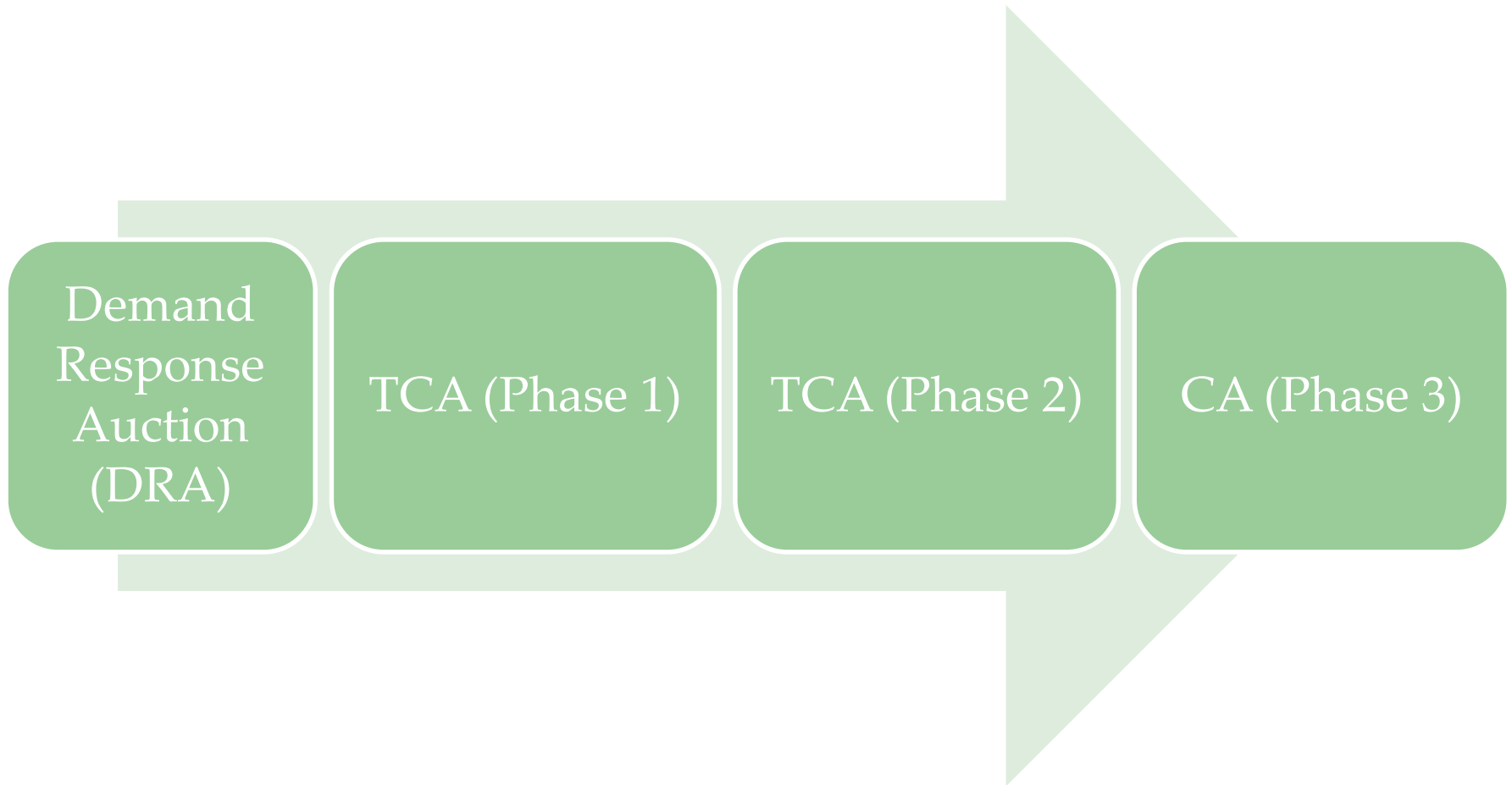
Background

- Ontario will emerge from surplus conditions next year and capacity is required to meet Ontario resource adequacy needs
- There is value for ratepayers in developing a mechanism to allow a variety of resource types to directly compete against each other to provide capacity
- Since 2015, we have been acquiring Demand Response capacity via an annual auction – but Demand Response (DR) resources alone are not sufficient to meet future capacity needs
- In June, the Board of Directors approved the development of the two phases of the Transitional Capacity Auction (TCA) to acquire capacity competitively from an expanding range of resource types

Original Staged Approach for Capacity



Revised Staged Approach for Capacity



TCA Project: Summary

- The TCA is designed as an annual auction to satisfy the near-term capacity needs starting summer 2020
 - The first TCA will be executed in Q4 2019
- The TCA project will deliver the following:
 - Increased competition beyond demand response resources, by enabling existing and market-enabled resources (i.e., generators, imports, etc.) to participate in capacity auctions
 - Incrementally evolve auction rules and processes to enhance the reliability and efficiency of the capacity resources acquired
 - For example, capacity qualification process and performance assessment
- Given the change in approach for the ICA, the TCA will be re-branded as the IESO's Capacity Auction in the future

Features – Phase I

- Phase I will use the existing Demand Response Auction as a starting point
 - Enabling off-contract, non-regulated dispatchable generators to compete with demand response resources in a Capacity Auction
 - Some other technical design features will change with limited impact on the overall auction execution or outcomes
 - For example, significant changes in market rule terminology
- Efforts are focused on education and establishing a roadmap for Capacity Auctions
 - In particular a reliability assurance plan for Target Capacity has been developed

Stakeholder Feedback Themes - Phase I

1. Equitable Treatment of Demand Response (DR)

- Demand Response resources will not be treated equitably because generators will be compensated for providing energy and ancillary services when they are activated while DR resources will not
- A few participants offered early comments that DR be kept separate from other capacity auctions, or a minimum quantity for DR is reserved

2. Timelines

- Moving too fast (slow down and move features to Phase II)

3. Eligible Resources

- More resource types want to be enabled in Phase 1 (move faster)

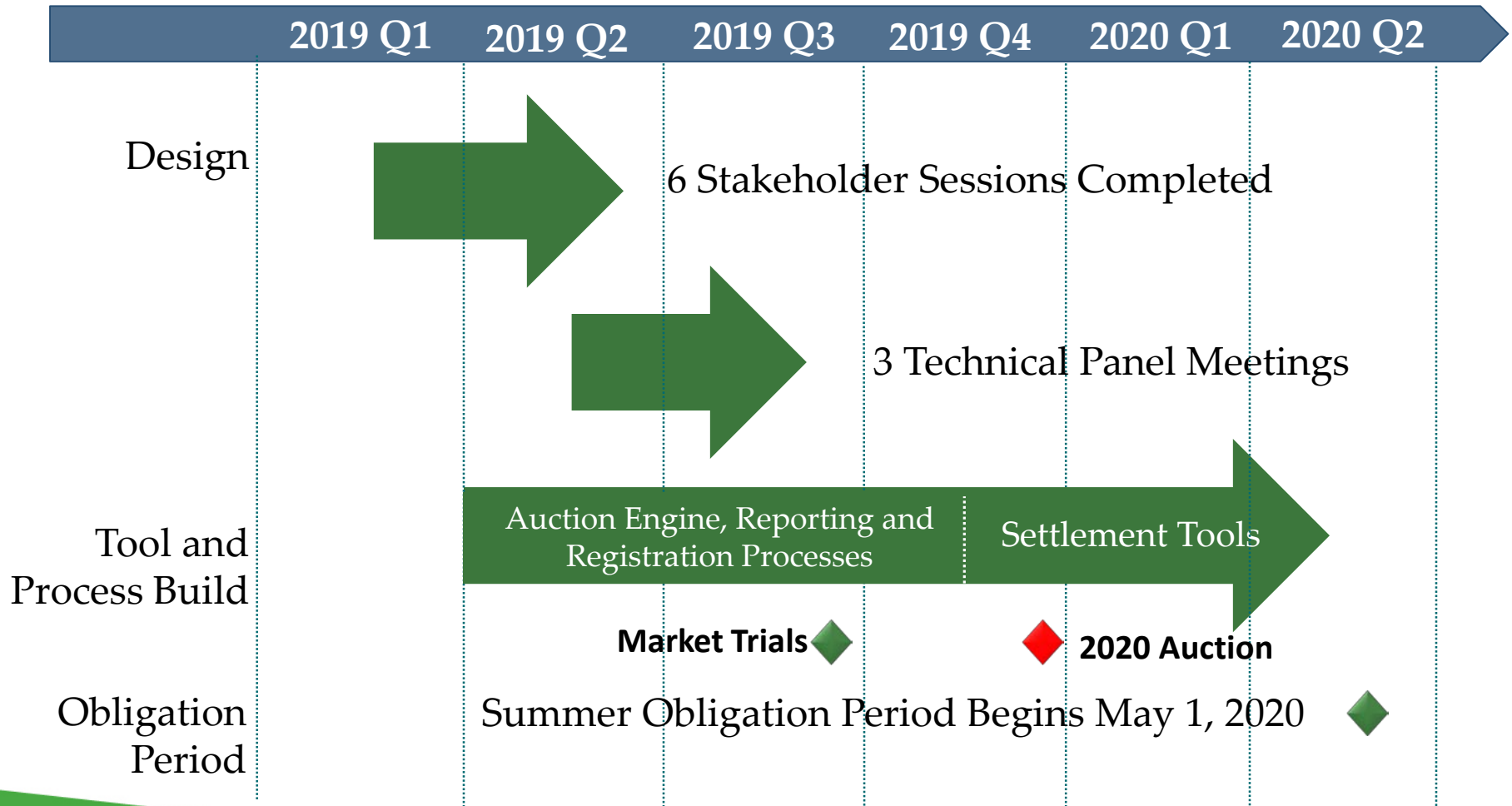
4. Considerations for Phase II and future auctions

- Early input from stakeholder desires for the next phase of design features
- Concerns about future IESO capacity need as some seasons will be have surplus capacity

Stakeholder Outcomes for Phase I

1. Focused IESO resources on Demand Response Working Group issues to address and assess any equity concerns
2. Adjusted schedule to allow more time for feedback and moved some design features to Phase II to reduce the burden of changes
3. Published a draft schedule of when resource types would be enabled in future Capacity Auctions
4. Developed a Target Capacity methodology to provide some certainty and support for developing resources in advance of the significant 2023 capacity need

Phase I - Timeline



Changes – Phase II

- Continue to enable some additional (but not all) resources to participate in the Capacity Auction
- Build a new auction engine that allows new auction features and increased processing capability
 - The auction engine is the tool that optimizes to select the set of successful offers to supply capacity
 - The DRA tool was always meant to be a temporary solution
- Develop new, and refine existing, technical design features as outlined in the Appendix
- Set the stage for future Capacity Auction enhancements

TCA Project: Key Risks

- Lack of stakeholder support anticipated due to expanded participation, compressed timelines for engagement, etc.
 - Mitigation tasks include executive outreach to build relationships and understand areas of concern and support
 - Increased IESO focus on DR Working Group to move forward issues of concern to DR community
- Unhappy stakeholders launch challenge of TCA Phase I Market Rules to Ontario Energy Board
 - The IESO continues to have proactive engagement with stakeholders to understand key concerns in order to reduce this risk
 - Should the TCA be delayed:
 - the IESO will continue to hold DR auctions using existing market rules to meet our short-term reliability need for capacity
 - the TCA Project will amalgamate design and implementation work stages to enable 2020 auctions

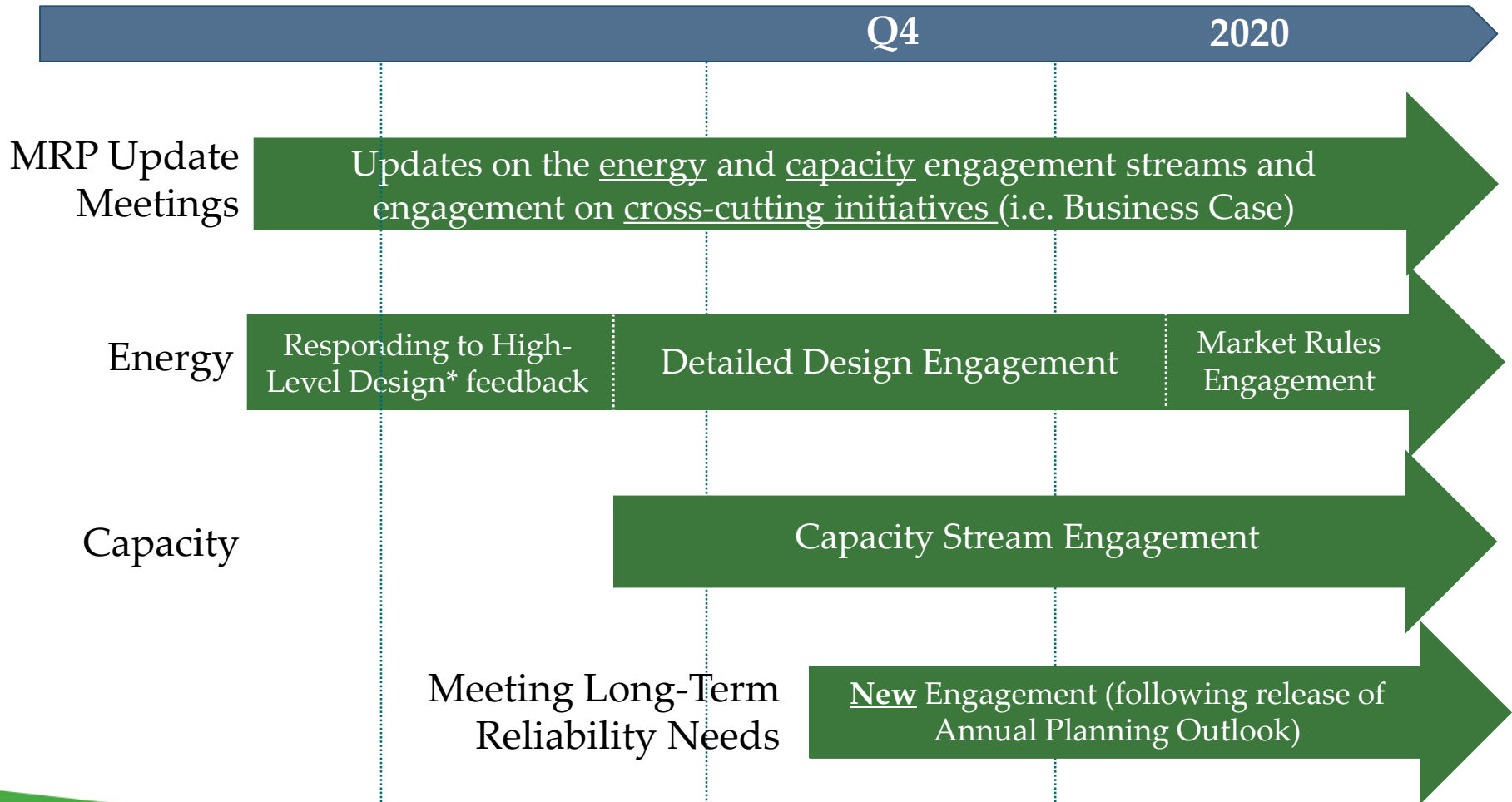
Next Steps for TCA

- Phase I design and IESO tool updates are complete and are ready for Market Trials
- Phase I is on track for the December auction
 - Market Rules will be presented at August 2019 IESO Board meeting
- Phase II design is underway and stakeholdering is as follows:
 - June 2020 auction design features stakeholdering starts September 2019
 - Market Rules planned to go the IESO Board in Q1 2020
 - December 2020 auction design features stakeholdering starts October 2019
 - Market Rules planned to go the IESO Board in Q3 2020

Next Steps for future CA Engagement

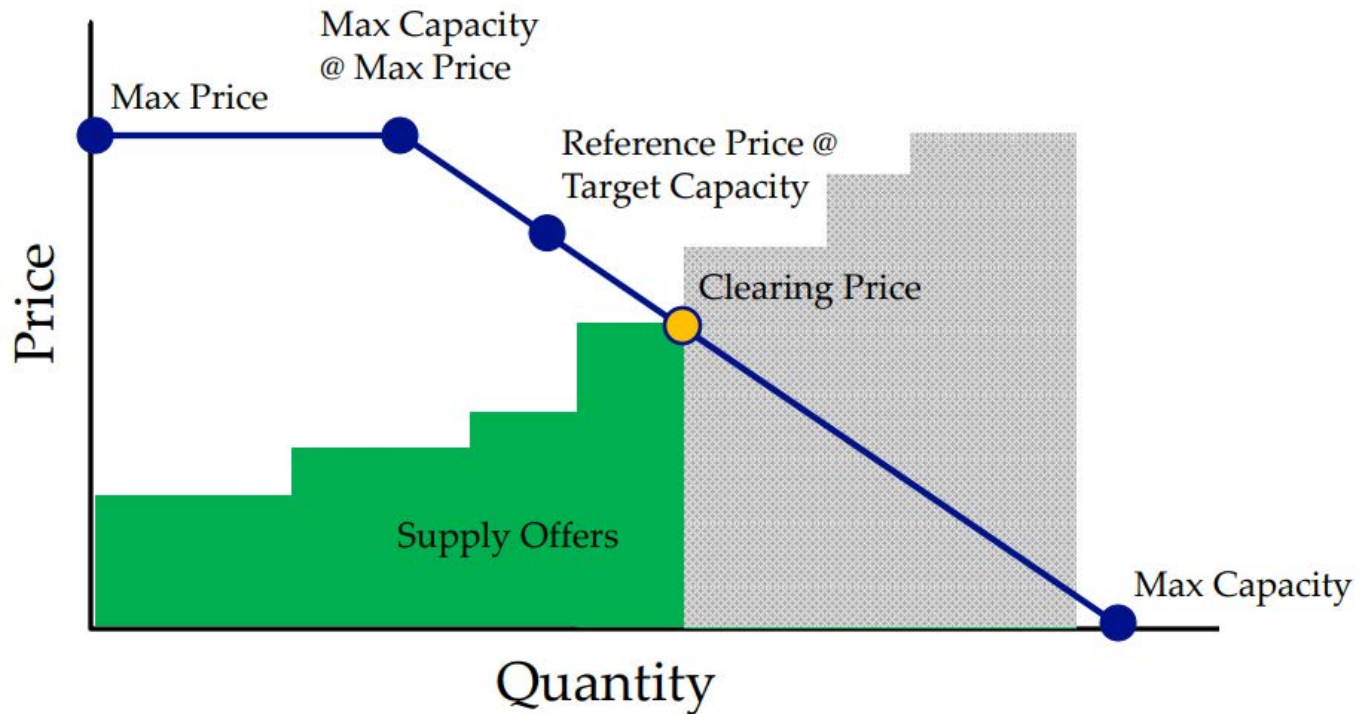
- **Capacity Engagement:** focused on the ongoing development capacity auctions (Phase 3 and beyond)
 - Continue to work with stakeholders on features required for an auction design that can meet Ontario's needs over the next decade
- **Meeting Long-Term Reliability Needs Engagement:** Focused on options for meeting longer term resource adequacy needs
 - Develop a quantitative and qualitative assessment of various resource acquisition mechanisms for Ontario's forecasted future needs and applicability of their uses
 - Develop a common understanding with stakeholders to ensure we find ways to satisfy Ontario resource adequacy as effectively as possible in the future

Engagement Approach going forward...



APPENDIX

Capacity Auction Demand Curve



Phase II - Design Features under Consideration – for June 2020 Auction

1. Demand Curve Parameters*

- The IESO will work with consultant to develop new demand curve parameters such as our expected resource cost and the maximum price the IESO is willing to pay for any capacity
- The shape of the curve will be unchanged

2. Resource-Level Participation

- Moving from organizational representation in the auction toward individual resources participation

3. Admitting Energy Storage

- Will admit energy storage to offer into the auction but will not address energy market barriers that may still exist

4. Enabling System-backed Imports

- Neighboring jurisdictions, who have no coal as part of their generation portfolio (i.e., Hydro Quebec), may participate in the auction to supply capacity

Phase II - Design Features under Consideration – for June 2020 Auction

5. Update Zonal Maximum Limits

- Informed by the IESO's resource adequacy requirements, the IESO will review the process for determining the how much capacity is acceptable in an area

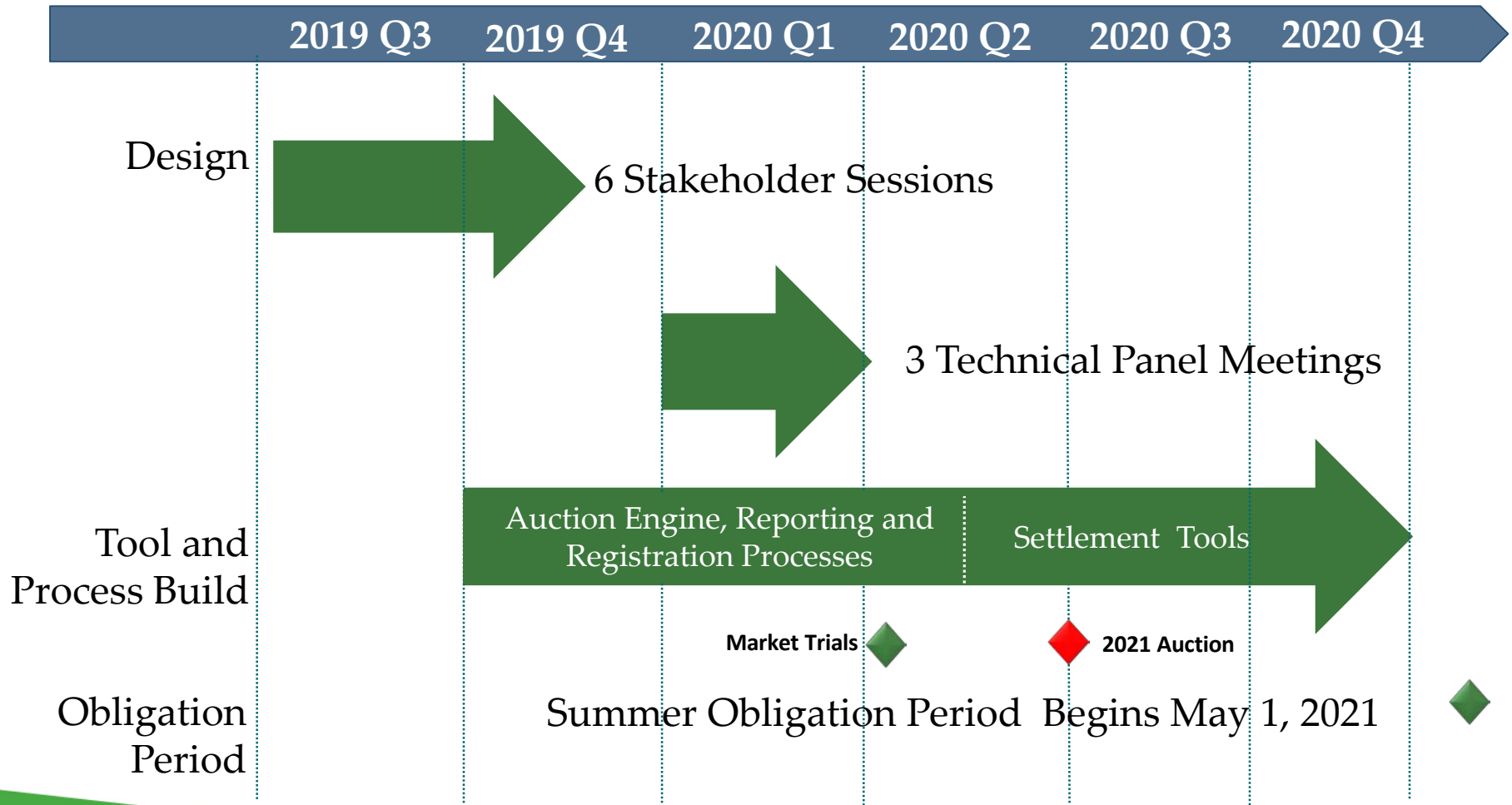
6. Revisions to Obligation Transfer Requirements

- The capacity obligation transfer shall consist of the same attributes (e.g. physical or virtual)
- Transfers of capacity between any zone will be allowed (given that it will not result in an exceedance of zonal constraints)

7. Declining Offers to manage gas/oil plant participation

- Allows participants with multiple generators at one location the ability to better represent their cost to supply capacity

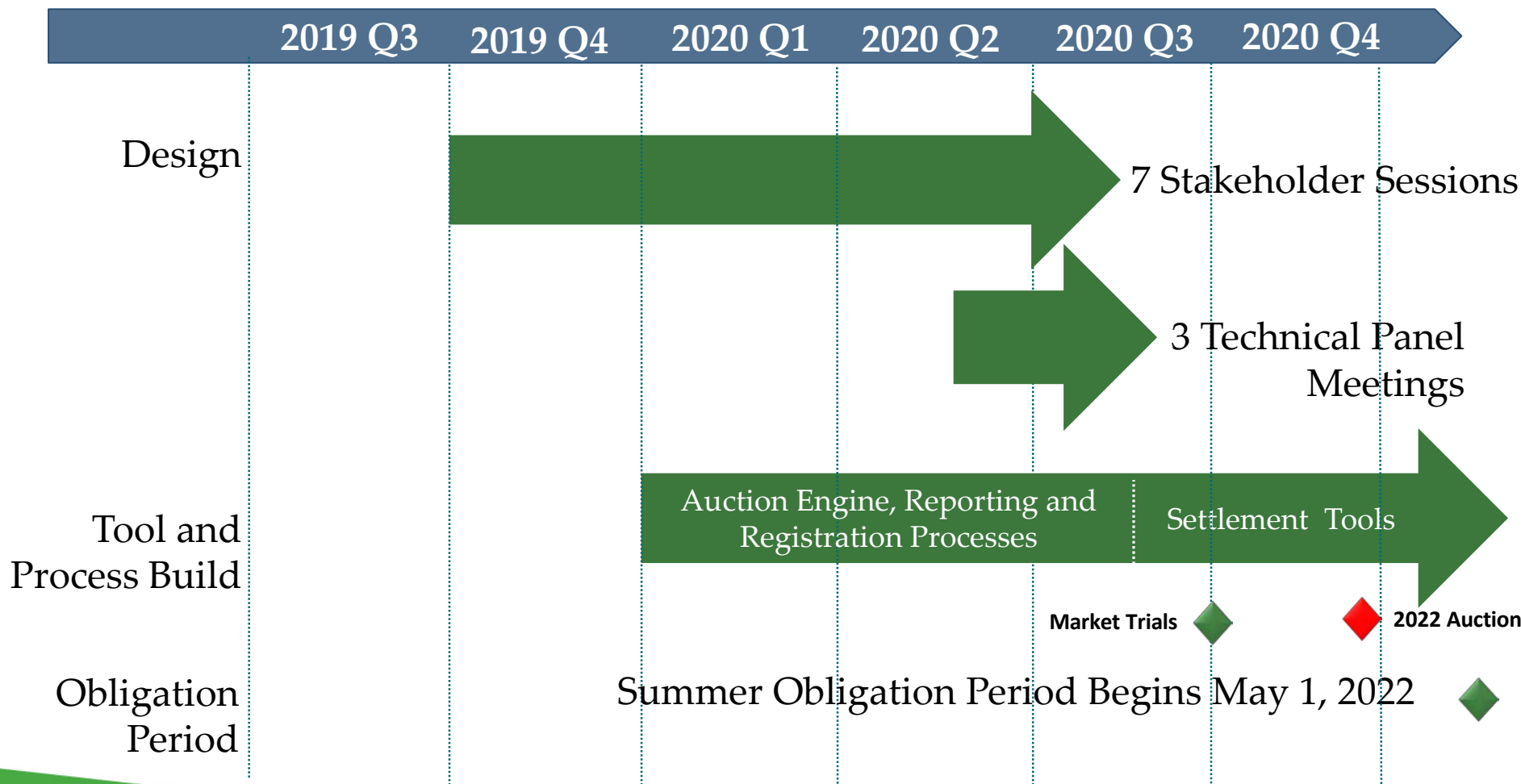
Project Timeline for June 2020 Auction



Phase II - Design Features under Consideration – for December 2020 Auction

1. Capacity Qualification Process*
 - Ensures every MW offered is equal and consistent with assumed performance
2. Performance Obligation Assessment*
 - Penalties and testing rules and processes
3. Market Power Mitigation*
 - Physical and economic withholding of capacity that could impact the auction price
4. Consider admitting Self-Scheduling generation into auction
5. Enabling Resource-Backed Imports (i.e., individual generators from neighboring jurisdictions such as New York ISO)
6. Enabling Merchant Capacity (i.e., uncontracted capacity from existing facility in Ontario)
7. Consider enabling Uprates (i.e., expansion of existing facility in Ontario)
8. Contingent Offers
 - Optimize the auction engine to manage the seasonal differences of Ontario's adequacy needs
9. Zonal and Regional Minimum Limits to improve reliability

Project Timeline for December 2020 Auction



Agenda Item Summary

Date of Meeting:	August 27, 2019
Presenter:	Leonard Kula, COO and VP, PA&O Shawn Cronkwright, Director, Energy Design & Implementation Alexandra Campbell, Director, Market Renewal Capacity Integration
Agenda Item:	Market Renewal Program Update
Purpose of item:¹	Education for a strategic issue
Executive Summary²:	<p>Attached is an updated Market Renewal Program dashboard. The program dashboard provides an overview of the program and a breakdown of its component parts – Energy and Capacity.</p> <p>The purpose of the dashboard is to provide the Audit Committee with visibility into the program’s progress, as well as a high-level overview of emerging issues.</p>
Significant Issues, Risks and Opportunities:³	Market Renewal is a strategic initiative that must be managed effectively to ensure progress.
Materials⁴:	Dashboard Report “Market Renewal Dashboard – August 2019”

¹ State the purpose of the agenda item: a) Education for a strategic issue, b) soliciting Feedback, or c) a Decision/Recommendation item.

² Provide concise summary of issue, identifying why the item is important to the Board, with distilled analysis, and Management’s recommendation.

³ Provide concise description of significant issues, risks and opportunities.

⁴ Materials (memo, slides, and reports) are to be concise, providing brief analysis of salient points, risks/opportunities, and Management’s recommendations. If detailed report/ background information is necessary, it should be provided in an appendix with specific direction to key sections.

MARKET RENEWAL PROGRAM DASHBOARD

Status Date: Aug 2019
Data as of: June 30, 2019

Purpose

The Market Renewal Program (MRP) Dashboard provides an overview of the program and a breakdown of its component parts – Energy and Capacity. The Dashboard report template is currently undergoing an update to ensure that it continues to provide the right level of visibility on key areas of interest for the IESO board of directors.

Summary

Overall Note

The impact of the IESO's decision on June 24, 2019 and subsequent announcement of changes to the Capacity work stream of MRP have not yet been cascaded through the MRP reporting documents. In order to ensure the most effective reporting as possible during this transition, the report uses data as of June 30, 2019 which is as close as possible to the date of announced changes. Reporting of progress and actual data to this point is captured. Forecast data for the revised Capacity work stream after July 1 through to year-end 2019 is not addressed specifically in this report.

Cost

The program is tracking in the Green category for all cost indicators. A Cost Performance Index (CPI) greater than 1 means the program is underspent – which is consistent with the program being slightly behind schedule. Reasons for the underspend: the bulk of the spend occurs later in the year when we procure the large software systems needed to implement the market design, reduced costs because resources are coming to the program slower than expected, and a delay in re-procuring a key market design consultant.

Schedule

On an annual cumulative basis, as of the end of June, the SPI for MRP is 0.81 which is currently under the value of 0.9 for the year-end accumulated average target. The SPI value reflects the combination of an SPI of 0.84 for the Energy work stream and an SPI of 0.76 for the Capacity work stream. In light of the recently announced changes in June for the capacity work stream, the target for capacity will need to be reviewed and updated. In the meantime, MRP will continue to report progress of the Energy work stream against the performance targets. For Energy, the SPI of 0.84 is lower than the end-of-year target as of the end of Q2 as a result of some high level design milestones pushing further into 2019 than planned and the associated value not able to be earned at this point, combined with some impacts to detailed design as a result of delays in acquiring the planned resources. The high level design milestones are currently planned to be completed before year end, and progress is being made on trying to close any remaining resource gaps with the Energy detailed design effort. Progress against the schedule is impacted by work to design, stakeholder and document High Level Design changes in order to address AMPCO concerns with the load-pricing proposed design.



MARKET RENEWAL PROGRAM

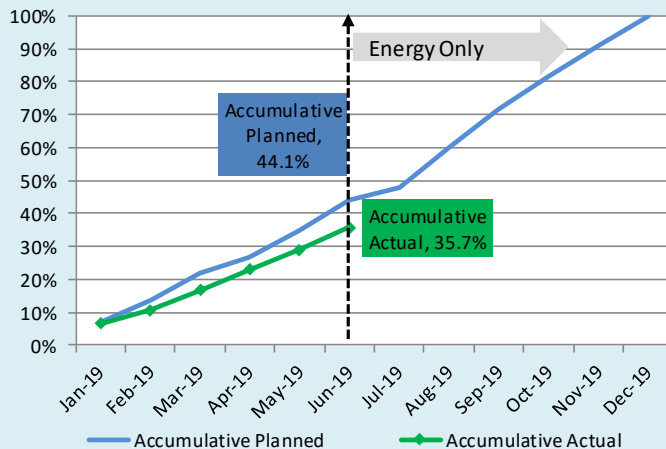
Status Date: Aug 2019

Data as of: June 30, 2019

Health Indicators

	Overall	Schedule			Cost		
		Schedule Performance Index (SPI)		Variance Progress	Cost Performance Index (CPI)		Progress
	Previous Month	Y	0.84	Y	G	1.65	G
Current Month	Y	0.81	Y	G	1.64	G	G
Trend	<div></div>	<div></div>		<div></div>	<div></div>		<div></div>

Schedule Progress



Key MRP Milestones

- The IESO announced changes in early July regarding the approach for addressing future capacity needs. The full impact of these changes have not yet been cascaded through the MRP reporting documents.

Broader IESO Linkages

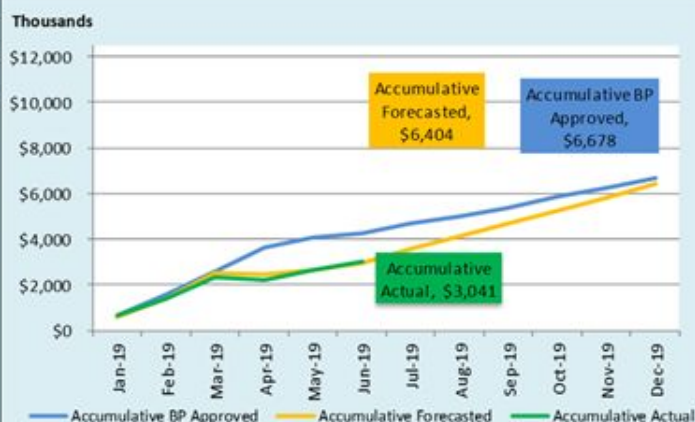
- The Transitional Capacity Auction (TCA) is a significant change to the Ontario electricity marketplace and happening in parallel to MRP. The recent IESO announcement of changes to how future capacity needs may be addressed has resulted in new questions and concerns from stakeholders participating in the MRP engagement activities.
- Market Participants with existing electricity supply contracts are interested not only in MRP design, but also how those changes will impact their contracts. Contract Management's plan to engage contract holders in parallel to MRP design activities is critical for success.
- MRP and the Replacement Settlement System (RSS) project have technical and implementation interdependencies that must be closely monitored.

Cost

Capital



Operating



Legend

Status	Overall	SPI	Schedule Progress	CPI	Cost Progress
G	All constraints green	> 0.90	< 10% contingency	> 0.90	< 10% contingency
Y	One constraint yellow	0.70 – 0.90	10% - 100% contingency	0.80 – 0.90	10% - 100% contingency
R	More than one constraint yellow, or any constraint red	< 0.70	>100% contingency	< 0.80	>100% contingency



MRP: ENERGY WORK STREAM

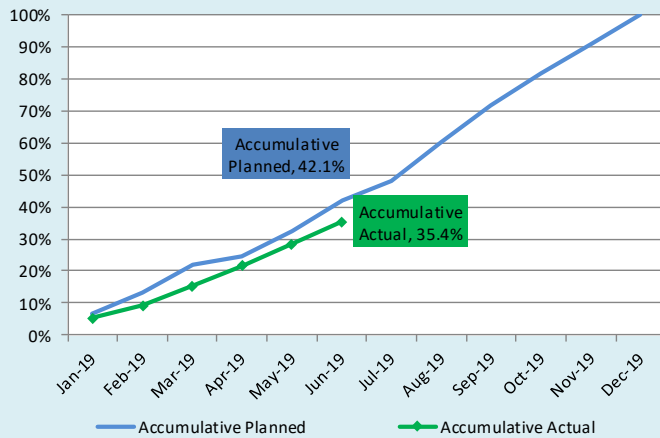
Status Date: Aug 2019

Data as of: June 30, 2019

Health Indicators

	Overall	Schedule			Cost		
		Schedule Performance Index (SPI)		Variance Progress	Cost Performance Index (CPI)		Progress
Previous Month	Y	0.88	Y	G	1.53	G	G
Current Month	Y	0.84	Y	G	1.61	G	G
Trend	<div></div>	<div></div>		<div></div>	<div></div>		<div></div>

Schedule Progress



Milestones

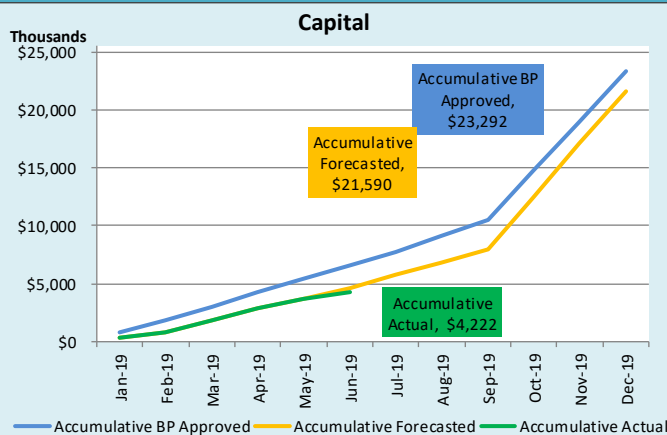
Complete

The final High Level Design (HLD) documents for Single Schedule Market (SSM), Day-Ahead Market (DAM), and Enhanced Real-Time Unit Commitment (ERUC) were published on August 8, 2019. This concludes the high level design phase of the Energy work stream.

Future

The Energy business case is planned to be brought to the Board of Directors in October for approval. The first version of the Energy detailed design document is planned to be complete by the end of March 2020.

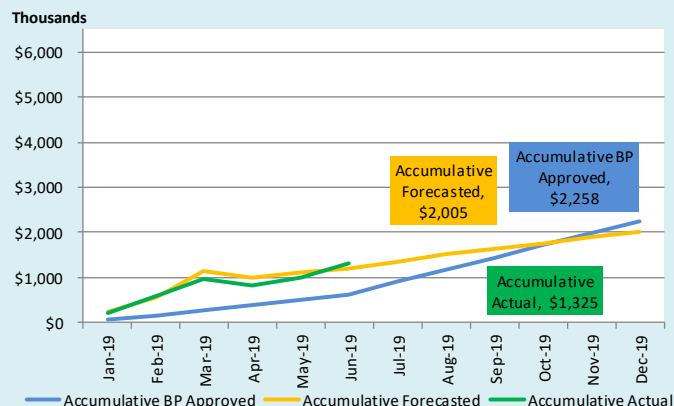
Cost



Key Issues

- Engaging stakeholders on the Energy business case
- Preparing for detailed design stakeholder engagement activities in September – November 2019.

Operating



Legend

Status	Overall	SPI	Schedule Progress	CPI	Cost Progress
G	All constraints green	> 0.90	< 10% contingency	> 0.90	< 10% contingency
Y	One constraint yellow	0.70 – 0.90	10% - 100% contingency	0.80 – 0.90	10% - 100% contingency
R	More than one constraint yellow, or any constraint red	< 0.70	>100% contingency	< 0.80	>100% contingency



MRP: CAPACITY WORK STREAM

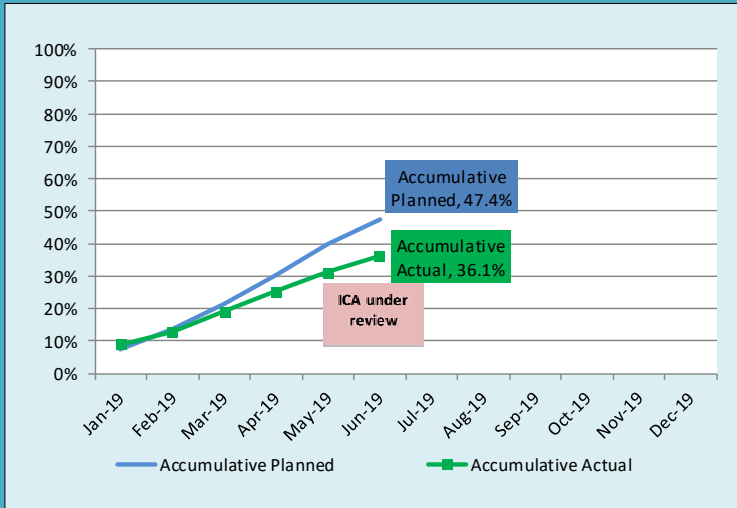
Status Date: Aug 2019

Data as of: June 30, 2019

Health Indicators

	Overall	Schedule			Cost		
		Schedule Performance Index (SPI)		Variance Progress	Cost Performance Index (CPI)		Progress
	Previous Month	Y	0.78	Y	G	1.85	G
Current Month	Y	0.76	Y	G	1.70	G	G
Trend	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>

Schedule Progress



Milestones

- Currently under review following the IESO's announcement in July regarding changes to the approach for capacity
- The IESO stopped all work on the ICA initiative on June 24, 2019. Total MRP spend for capacity work from January 2017 to June 24, 2019 is about \$10 million. Some of the ICA detailed design work is useful to help develop TCA designs.

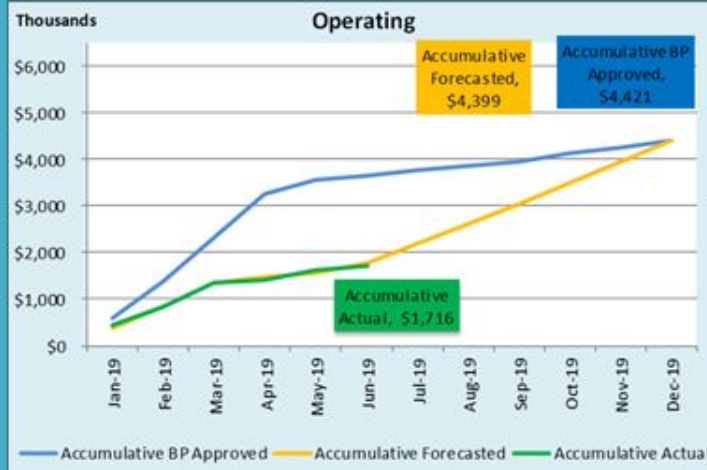
Cost



Key Issues

- Currently under review
- The TCA project is currently underway. This project will evolve the Demand Response Auction in 2 phases, with an objective of increasing competition and more effectively meeting Ontario resource requirements. The MRP Capacity stream is being repositioned to develop Phase 3 - that set of incremental changes to further drive competition and effectiveness.

Operating



Legend

Status	Overall	SPI	Schedule Progress	CPI	Cost Progress
G	All constraints green	> 0.90	< 10% contingency	> 0.90	< 10% contingency
Y	One constraint yellow	0.70 – 0.90	10% - 100% contingency	0.80 – 0.90	10% - 100% contingency
R	More than one constraint yellow, or any constraint red	< 0.70	>100% contingency	< 0.80	>100% contingency

AMPCO INTERROGATORY 36

AMPCO-36

INTERROGATORY

Ref: C-2-2 P1

The IESO indicates that “along with the limited capacity needs for Ontario in the future, the current path of the HLD had a lack of stakeholder support to proceed with detailed design.”

a) Please explain what the assumption was for capacity needs for Ontario in the future, in the Incremental Capacity Auction (ICA) High Level Design (HLD) in March of 2019.

b) Please explain the reasons for the lack of stakeholder support.

Please explain how stakeholder concerns are addressed through the revised approach to MRP.

RESPONSE

(a) During development of the ICA HLD, assumptions were based on forecasts presented at the September 2018 Technical Planning Conference.

(b) Stakeholder feedback to the ICA HLD has been posted publically to the IESO’s ICA stakeholder engagement page¹. Within that feedback, including the submission from AMPCO, stakeholders noted that there was not a fulsome discussion around the alternatives or complementary tools to the ICA.

The IESO will be convening stakeholders in the Fall of 2019 to discuss ways to meet Ontario’s long-term resource adequacy requirements. Please also see the response to OEB Staff Interrogatory 29 at Exhibit I, Tab 6.0, Schedule 1.29.

¹ <http://www.ieso.ca/Market-Renewal/Stakeholder-Engagements/Market-Renewal-Incremental-Capacity-Auction>

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AMPCO INTERROGATORY 37

AMPCO-37

INTERROGATORY

Ref: C-2-2 P1

The IESO indicates it remains committed to providing open, transparent and competitive mechanisms for acquiring capacity and allowing a variety of resource types to compete. It will initiate an engagement with stakeholders on alternative approaches that could work in concert with auctions to meet capacity needs.

a) Please outline the strategy and timeline for the above proposed engagement with stakeholders.

b) Please provide the number of resources and costs in 2019 related to the above stakeholder engagement.

RESPONSE

a) Please see the response to OEB Staff Interrogatory 41 b) i. at Exhibit I, Tab 6.0, Schedule 1.41.

b) The cost estimate and number of resources required for this work will be identified once a formal plan is released.

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1 **AMPCO INTERROGATORY 38**

2 AMPCO-38

3 **INTERROGATORY**

4 **Ref #1: C-2-1 P11 Table 8**

5 **Ref #2: C-2-2 P4**

6 At reference #1, the 2019 MRP Capacity Capital budget is \$11.3 million.

7 At reference #2, the 2019 MRP Capacity budget is \$12 million.

8 Please explain the variance.

9 **RESPONSE**

10 The increase is due to increased estimates for the detailed design consultant for ICA and the
11 associated contingency for this contract.

12 The updated forecast for the Capital budget for Capacity is zero.

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AMPCO INTERROGATORY 39

AMPCO-39

INTERROGATORY

Ref: C-2-2 P3 Table 2

- a) Please explain the \$2 million variance, Budget compared to Actual, for January 2019 to June 2019.
- b) Please detail the work activities and associated costs to be undertaken July 2019 to December 2019.
- c) Please discuss if the 2019 Capacity Forecast of \$4.8 million includes an amount for contingency. If yes, please provide a breakdown of the contingency by cost category.

RESPONSE

- a) The Capacity work stream deliverables in the first half of 2019 included the completion of high level design and the start of detailed design, which is a capital expense. The high level design was completed with fewer resources and ahead of schedule with resources starting detailed design earlier than planned – this resulted in an operating expense savings of \$2.0 million.

(\$ millions)	January 2019 – June 2019 Year to Date		
	Actual	Budget	Variance
Compensation & Benefits	1.4	2.9	(1.5)
Professional & Consulting	0.3	0.7	(0.4)
Operating & Administration	-	0.1	(0.1)
Total Operating Expenses	1.7	3.7	(2.0)

- b) The IESO plans to complete a review of complementary resource acquisition mechanisms in late 2019. This work will inform the IESO as to what, if any, enduring additional or enhanced features are required in the capacity auction. Please also see the response to OEB Staff Interrogatory 29 at Exhibit I, Tab 6.0, Schedule 1.29.
- c) The 2019 Capacity forecast does not include contingency.

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AMPCO INTERROGATORY 40

AMPCO-40

INTERROGATORY

Ref #1: OEB Staff 14 Updated August 26, 2019

Ref #2: OEB Staff 14 April 30, 2019

Please explain why the monthly headcount actuals for Dec 2018, Jan 2019, February 2019 and March 2019 differ between the two responses.

RESPONSE

The actuals differ between responses as the numbers in the initial response excluded some support resources that were later identified. Support resources are core IESO resources that are providing support to the program, but don't report to MRP.

The updated evidence submitted August 26 reflects the IESO's current understanding of historical MRP resourcing.

MRP Headcount	December 2018	January 2019	February 2019	March 2019
Ref #1: OEB Staff 14 Updated August 26, 2019	82	81	80	79
Ref #2: OEB Staff 14 Filed April 30, 2019	76	79	79	73

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AMPCO INTERROGATORY 41

AMPCO-41

INTERROGATORY

Ref #1: BOMA 6 Updated August 26, 2019

Ref #2: BOMA 6 April 30, 2019

At reference #2, the headcount for MRP is 125. At reference #1, the revised headcount is 73, a variance of 52. At C-2-2 P4 Table 4, the 2019 Capacity Work Stream headcount is decreasing from 55 to 27, a variance of 28. Thus of the MRP variance in headcount of 52, 28 is related to the Capacity Work Stream. Please account for the further variance in headcount of 25 (52-28=24).

RESPONSE

The updated evidence provided the annual cost of the MRP resources at June 2019. An updated table which reflects the forecasted MRP resources at December 2019 is provided below:

	Employee Type	Budget	Updated Forecast December	Variance
Energy	Regular	41	41	-
	Temporary	14	14	-
	Total	55	55	-
Capacity	Regular	35	18	(17)
	Temporary	20	9	(11)
	Total	55	27	(28)
General	Regular	11	11	-
	Temporary	4	4	-
	Total	15	15	-
MRP Total	Regular	87	70	(17)
	Temporary	38	27	(11)
	Total	125	97	(28)

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