

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.