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APPrO
ASSOCIATION OF
POWER PRODUCERS
OF ONTARIO

APPrO Comments on the Benefits Case Assessment of the Market Renewal Project

("The Future of Ontario's Electricity Market[1]")

The Association of Power Producers of Ontario (APPrO) is pleased to submit these comments to the Independent Electricity System Operator (IESO) on the above-noted study recently prepared for the IESO by the Brattle Group.

INTRODUCTION

First, APPrO wishes to acknowledge the time and effort that has gone into the preparation of this study, the related Working Group discussions and stakeholder engagement and the government's support for a re-examination of Ontario's electricity market structure and procurement approaches in the future.

The Report concludes that IESO's Market Renewal Initiative (MR) can potentially result in significant future wholesale energy market, operability and procurement efficiency benefits in Ontario. Although, APPrO agrees that measures to address well-known and understood Ontario electricity market inefficiencies, thereby improving system operating flexibility and end-user cost are likely necessary, APPrO cautions that there may likely be other impacts that are not necessarily fully understood or examined within this report.

Most notably the outcomes from this market renewal initiative will likely have impacts on the economics and investments made by incumbent contracted suppliers', which may require significant effort in amending contracts. However, APPrO will continue to monitor the progress of this initiative, as at this time it is difficult to determine the precise contractual impacts and the required amendments. APPrO encourages the IESO to start engaging suppliers at the onset when it is clearer as to the impacts MR will have on contracted assets. Additionally, market renewal will require important improvements in sector and IESO governance. Therefore the

[1] The Brattle Group, The Future of Ontario's Electricity Market: A Benefits Case Assessment of the Market Renewal Project, March 3, 2017 Draft Report

path forward must be undertaken carefully, reflect Ontario's unique features and attributes, and include appropriate mitigation strategies during any transition.

Furthermore, APPrO believes that benefits calculated by Brattle may be significantly overstated, partially because of the approach and methodology used to calculate benefits, and partly because the unique characteristics of the Ontario supply situation together with very different constitutional, political and electricity governance issues and risks likely militate against the magnitude suggested, unless a very Ontario-specific approach and design is employed. US-markets while instructive may not necessarily be the most viable model for the Ontario situation as they also come with their own challenges and are under reform themselves. However, this is not to diminish the importance of addressing the need for electricity market reform and the restoration of competitive open market fundamentals; it is simply stating the obvious: Canada is not the U.S; Ontario is not PJM or NYISO. Therefore, as acknowledged by Brattle, any new Ontario market design should be able to "leapfrog" the challenges currently faced by those markets[2]. In addition, and because of the strong interrelationship between market energy prices and the Global Adjustment, there is a strong potential to mute the forecasted efficiency benefits from energy market reform in the near to medium term until the terms of contracted assets have fully expired beyond what has been forecasted.

We appreciate the IESO's and Brattle's intent to address stakeholder concerns regarding the details and granularity on the allocation of benefits to various market participants in its draft report; however, we find the allocation of benefits between customers and other market participants using a 50/50 methodology to be somewhat arbitrary. We continue to support the need for forward looking modeling of potential outcomes, which acknowledges Ontario's unique characteristics, identifying potential benefits to all market participants in support of a final decision by the IESO and its stakeholders as to how they wish to prioritize initiatives and proceed to detailed market redesign.

ONTARIO ELECTRICITY MARKET RETROSPECTIVE

The Ontario electricity market, as APPrO noted in an earlier submission, is now almost 20 years old, and much has changed in Ontario and elsewhere since that time. On the other hand much has also been accomplished over the same period to address fundamental and significant electricity system challenges Ontario faced in the late 90s and early 2000s.

Ontario undertook a very significant market design process under the Market Design Committee (MDC) in the late 90s and launched the Ontario electricity market in 2002. In some important respects, the design proposed by the MDC was never completely fulfilled (locational pricing, proper ramp rate, etc.) and market opening was later overtaken by political events:

- In December 2002, in reaction to high and volatile prices, the government introduced the Electricity Pricing, Conservation and Supply Act (EPCS), which (along with other

[2] ibid, page 6

measures) froze retail prices at 4.3 cents per kWh until 1 May 2006. Transmission and distribution rates were also frozen until 1 May 2006 (the freeze was later lifted in April 2004 by the new McGuinty government). This effectively eliminated new investment in generation based on scarcity pricing, and also resulted in cutbacks in transmission and distribution investment.

- As a result of the August 2003 blackout in eastern North America and to address the challenge of financing new investment in Ontario's system, the government formed the Electricity Conservation and Supply Task Force (ECSTF). The ECSTF delivered its report in 2004. It concluded that "the market approach adopted in the late 1990s needs substantial enhancement if it is to deliver the new generation and conservation Ontario needs, within the timeframes we need them[3]". The task force also recommended that a long-term plan for generation and conservation was needed. These recommendations were acted on by the new government in 2004 and 2005 with the formation of the Ontario Power Authority (OPA) and the initiation of Integrated Power System Plan (IPSP) and Supply Direction.

- The government also moved to eliminate coal fired generation originally by 2007, but later changed this to 2014. A series of long term contracts were signed to address the supply deficit, the off-coal policy and to bring more "green energy" into the system. This latter objective was amplified during and after the 2008-2009 recession (which also saw demand fall significantly).

Since market opening in 2002, there have been a number of attempts to address design elements not completed in the original roll-out, or to address a variety of issues which have arisen as a result of operational experience. Some have been successful, but overall, the IESO and market participants have been unable to effect significant and substantial changes to Ontario's wholesale electricity market design and rules despite several attempts to do so. Over time, this has become more and more difficult as generation suppliers have formulated their economics and entered into contracts with the former OPA and now the IESO based on the current market design. Because these contracts have long terms, market evolution has been extremely difficult.

In this respect the Brattle Report seems to misunderstand the genesis of Ontario's contracted supply situation, ascribing it to the OPA and IESO, when in fact these entities have simply executed in every case the directions imposed on them by the Ontario government. This approach has been successful in achieving Government's public policy objectives. The fact is that Ontario has reduced its carbon footprint by 85% (unprecedented in North America), addressed its reliability challenges, effected a significant degree of economic activity around these efforts, and got very good investments in refurbished or new energy capacity at a competitive cost of

[3] TOUGH CHOICES: Addressing Ontario's Power Needs. Final Report to the Minister, January 2004, i

capital through its approach to competitive procurements, with appropriate allocation of risk between the parties. The cost of these initiatives is largely a function of policy and political drivers, not the inherent design of contracts.

The Minister of Energy noted this recently: "Ontarians will be benefiting from these investments to strengthen our clean and reliable electricity system for decades – both economically and environmentally." One can argue the efficacy of this approach but it has achieved the government's objectives. The current contracts remain in place and will continue to do so for some time to come.

GENERAL COMMENTS & RECOMMENDATIONS

Brattle suggests that a renewal process may result in negative consequences for some currently contracted suppliers. Potential changes to implement LMP, DAM, Capacity Market, etc., all have far reaching impacts to future wholesale market operations and revenues, along with triggering contract amendments which could adversely affect supplier economics if not fairly treated. Without a clear understanding of what these are, their timing, and a commitment to impact mitigation and a strategy from the IESO to keep suppliers economics whole in any transition, it may be challenging for all suppliers to support such a broad market renewal effort.

As the ECSTF Report put it: "Generators who were willing to make an early commitment to Ontario…should not be penalized by the proposed new approaches on resource adequacy.[4]"

APPrO appreciates that the IESO has taken note of the impact on contracts as a critical MR issue to be managed: "…the IESO understands that the potential for Market Renewal to impact contracts is a key concern for many stakeholders. The IESO is not looking at contracts as an opportunity for further cost savings. We recognize that contracts will be impacted and we will work with counterparties in a collaborative fashion to address these issues."[5]

This issue remains (along with future political and governance risk, and the unique nature of the Ontario electricity system), potentially a very significant impediment for a successful market renewal initiative of the breadth and depth proposed by the IESO. Additionally, given the previous track record on changes to Ontario's wholesale electricity market design and a lack of stakeholder consensus regarding what changes should be implemented, when, and how, APPrO believes that the Market Renewal Benefits Case should be both carefully reviewed and if it is to move forward to the design stage, it be carefully managed through a well-developed and robust project management process in order to achieve measurable goals within a carefully considered timeline and project management cost envelope, and to minimize contracted supplier impacts. Off-ramps and options must form part of this project management approach. From APPrO's perspective this will, together with a reasonable and balanced approach to contract amendments, be an essential condition for success in the initiative.

[4] Ibid., iv

[5] Market Renewal SE Stakeholder Feedback, Engagement Structure, and Objectives and Principles, February 2017

As APPrO has noted previously[6], the fundamental differences between Ontario's electricity market structure and other organized electricity markets in North America or elsewhere, must be reflected in a Market Renewal Business Case. We are not persuaded that they do so, yet. This omission could potentially inflate benefits. For example:

- Ontario Power Generation (OPG) is Ontario Government-owned, the dominant supplier, and most of its generation is rate-regulated by OEB;
- Generator market participants are all hedged either by procurement contracts or regulated rates;
- Very few 'active market buyers' because most load customers are hedged through default supply rates or special rates, where no Load-Serving Entities (LSEs) exist with obligations to serve any Ontario loads;
- Because of the lack of generators and loads exposed to Ontario's wholesale electricity market and its prices, bilateral contracting is very illiquid;
- IESO's market rule amendment process has relatively weaker governance compared to the oversight of the US Federal Energy Regulatory Commission (FERC) over ISO wholesale markets (except ERCOT), along with more robust stakeholder participation regarding ISO market design and rule changes.

APPrO supports the exploration of operability reforms. However, insufficient analysis has been undertaken to determine what potential operability reforms are needed. For this reason, we consider that Brattle's approach, methodology, and results for operability reforms are even more subjective than for the energy market enhancements. However, in light of Ontario's growing need for flexible resources and products, APPrO supports exploring the implementation of new flexible products and the expansion of the ancillary market. APPrO would also suggest that these products need to be procured competitively.

Regarding capacity auctions, or some other kind of capacity product, APPrO considers that Ontario-specific costs and risks vis-à-vis other markets and jurisdictions must be accounted for when doing comparisons of contract prices and capacity prices. In APPrO's view, the case for the introduction of an incremental capacity auction for maintaining resource adequacy is less clear and the benefits case for it should be the focus of more investigation.

It can be argued that contract prices in Ontario reflect their vintage, the specifics of various government of Ontario supply mix directives, procurement approaches used by the OPA, locations and technology specified in the call for proposal, real higher costs (e.g., exchange rate, labor, regulatory), various approvals, and higher risks (e.g., political, lack of hedges resulting from illiquid bilateral contracting market, etc.) compared to other markets and jurisdictions. Should in depth consideration to the development of capacity markets be considered as part of market renewal then risk allocation and cost to manage that risk should be important

[6] APPrO Submission to IESO Market Renewal Preliminary Benefits Case Findings, February 2017.

parameters to be evaluated. Brattle is correct in stating that the risk to new investment in capacity has been largely borne by consumers through the previous procurement model; however, those investments have been secured at competitively priced and competitive returns on capital. APPrO submits that in a capacity market where the risk on supply fundamentals shifts to the suppliers, the return on investment required to attract capital may be higher. For a capital intensive industry, this has the potential to not be aligned with the interests of the consumer.

Since no US-style capacity market was in place in Ontario at the time, a retrospective comparison of existing Ontario contracts to similarly vintaged capacity-type contracts in other jurisdictions is not very useful. Given the uncertainty about the future of Ontario's supply and demand dynamics and going forward, it also suggests that future costs savings Brattle projects around capacity auctions are conjectural. That said, consumer cost reduction going forward is an important driver of reform, and a capacity auction approach to incremental procurement represents a significant component of the benefits case. It also reflects APPrO's view that existing assets have value that can be harnessed going forward, both during the term of current contracts, and beyond. As such, capacity markets may be beneficial to those resources coming off contract as it provides a source of revenue stream; however, as noted above, capacity markets may not be the best way or only way to source new investments.

Capacity auctions for incremental intermediate and peaking resources as contemplated in market renewal could generate efficiency benefits to Ontario by recognizing the longer-term value of existing capacity, and attracting low-cost, non-traditional capacity resources that may not have been identified under Ontario's existing procurement framework. However, these auctions are designed to procure generation capacity over short terms of 1 – 5 years.

The high degree of difference between Ontario's market structure and design compared to other ISO markets will likely drive significant amounts of Ontario-specific customization relative to other ISO markets. In particular, nuclear and hydro investments require financial commitments extending over decades as well as long term agreements with indigenous and local communities.

Given their foundational nature, nuclear and baseload hydro resources that require such long term capital commitments and include other benefits and/or considerations will require a long-term regulatory or contractual framework outside of a capacity framework.

GOVERNANCE

Finally, as APPrO has noted previously[7] Market Renewal is not just about a new market design. If it is to be sustainable over the long term, and deliver the results anticipated, a renewed market must be able, - and importantly, left able - to operate to deliver the most efficient outcomes within a clearly defined policy framework. A more effective governance framework than

[7] Op.cit.

currently exists must therefore be adopted to better ensure the accountability, transparency, and workability of the IESO-administered wholesale electricity market going forward. The framework must include consideration of how rules should be made. It is instructive to note that the subject of governance was an entire chapter (Chapter 5) in the final report of the original Market Design Committee in 1999, so a refresh of IESO rule-making processes and consideration of best practices after almost 20 years ought to be undertaken for the same reasons as a market design renewal.

APPrO is pleased to note that the Brattle Report acknowledges this:

> "We agree with stakeholders that governance and regulatory risks are critical components of the capacity auction workstream… we recommend that the IESO and stakeholders explicitly address these risks through a combination of improved governance structures and market design elements that address Ontario's unique challenges and environmental policies…"[8],

and that the IESO has also accepted this as a critical aspect of Market renewal.

APPrO appreciates the opportunity to participate in this engagement and should you have any questions on this submission, please do not hesitate to contact me.

Sincerely,

David Butters
President & CEO

[8] Brattle Draft Report, page 11