

# Resource Adequacy – Feedback Form

Meeting Date: September 28, 2020

<b><u>Date Submitted:</u></b> 2020/10/20	<b><u>Feedback Provided By:</u></b> Organization: Ontario Waterpower Association Main Contact: Paul Norris Email: [REDACTED]
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Following the September 28, 2020 Resource Adequacy webinar, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on the following items discussed during the webinar. More information related to these feedback requests can be found in the presentation, which can be accessed from the [engagement web page](#).

**Please submit feedback to [engagement@ieso.ca](mailto:engagement@ieso.ca) by October 20, 2020.** If you wish to provide confidential feedback, please submit as a separate document, marked “Confidential”. Otherwise, to promote transparency, feedback that is not marked “Confidential” will be posted on the engagement webpage.

## Stakeholder Feedback Table

IESO Requests	Stakeholder Feedback
<u>Principles to Guide the Resource Adequacy Framework Conversation</u>	
<p>The IESO proposes to use the MRP guiding principles to guide the discussion with stakeholders on the development of a high-level Resource Adequacy framework. Are there other principles that should be considered throughout this discussion?</p>	<p>Yes. There should be an explicit principle of “Commercially Reasonable” – i.e. does the framework support commercially reasonable investment.</p> <p>There should also be specific recognition that Resource Adequacy includes Distribution Connected Generation.</p>
<u>Draft Resource Adequacy Framework</u>	
<p>Do these three capacity acquisition timeframes (commitment and forward periods) provide sufficient options for meeting the needs of your resource type?</p>	<p>No. The IESO has actually presented five (5) acquisition mechanisms:</p> <p><u>Programs</u> Investments in assets, resources and businesses that can meet both electricity and non-electricity objectives</p> <p><u>Capacity Auctions</u> Remain as the IESO’s primary mechanism for acquiring smaller amounts of capacity to meet short term needs</p> <p><u>Capacity auctions or targeted RFPs</u> Re-acquire existing resources of a minimum size that have material costs to re-invest and extend their capability to meet medium term needs</p> <p><u>RFPs</u> Acquire newly-built resources or existing resources that require major upgrades to meet needs that are within long-term forecast confidence</p> <p><u>Government Policy</u> Nuclear and large-scale hydro resources are based on long-term strategic views that capture more than just the forecasted electricity needs</p> <p>The OWA’s initial comments on these options are provided in a separate written submission.</p>

Which option(s) are most suited to your resource type?	Waterpower facilities, regardless of size, have extremely long lifespans and capital investment plans in contrast to most other electricity sources. Moreover, they provide myriad socioeconomic and environmental benefits that go well beyond affordable, reliable electricity. The RA framework should begin with a recognition of these core assets, both transmission and distribution connected.
Based on timing when various mechanisms are going to be available, do you see timing gaps when a resource needs a mechanism before that mechanism is ready?	<p>Yes. Contracts for more than one hundred (100) waterpower facilities are scheduled to expire before or close to 2028/2029. Owners of these assets are making capital investment decisions <u>now</u> (e.g. dam safety, public safety around dams). The earlier that there is clear visibility on the mechanisms by which Capacity, Energy and Ancillary Products will be valued, the more certain investment decisions will be and the more value will be provided to ratepayers.</p> <p>In addition, based on the timelines outlined, it would appear that, by design, no new Greenfield waterpower, regardless of size, will be supported and even securing incremental capacity from existing facilities will be extremely challenging.</p>
<b>Resource Adequacy Engagement Plan</b>	
What needs to be considered in future engagement phases to develop the details of the mechanisms in the framework?	The IESO should be engaging stakeholders on all five (5) acquisition mechanisms presented. Again, the principle of “Commercially Reasonable” should be applied throughout.
What other areas need to be discussed with stakeholders to operationalize the framework?	The approach to small hydro (existing and new). Does the IESO see this as a program?



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October 20, 2020

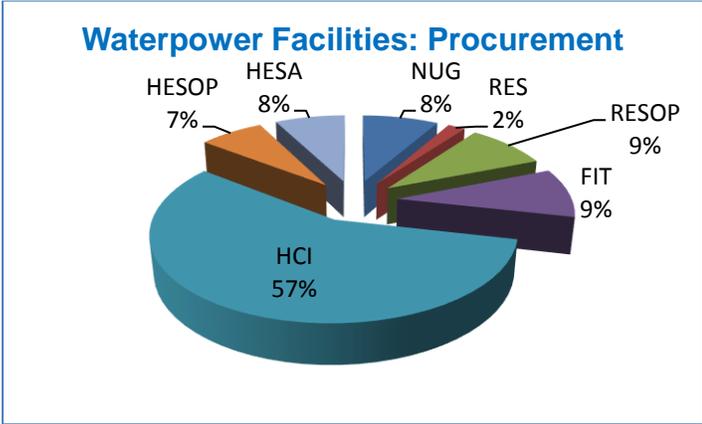
Dear Leonard,

I am writing further to the IESO's September 28 Resource Adequacy Stakeholder session to provide our initial input and advice regarding the scope and design of the initiative. At the outset, I am encouraged with the re-launch of this initiative and am hopeful that it achieves its full potential. My comments are intended to contribute to that objective.

1. Applying an Ontario lens

As was raised throughout the Incremental Capacity Auction stakeholder engagement, as recognized by the IESO in the decision to discontinue its effort on the initiative, any approach to resource adequacy must necessarily apply the lens of the jurisdiction to which it will apply. Ontario's two hundred twenty-five (225) hydroelectric facilities account for approximately 25% of installed capacity and annual energy production and, at only 17% of overall generation costs, provide significant value to ratepayers. Importantly, as illustrated below, the majority of these facilities (155) are under some form of contract, while the remainder are rate-regulated.

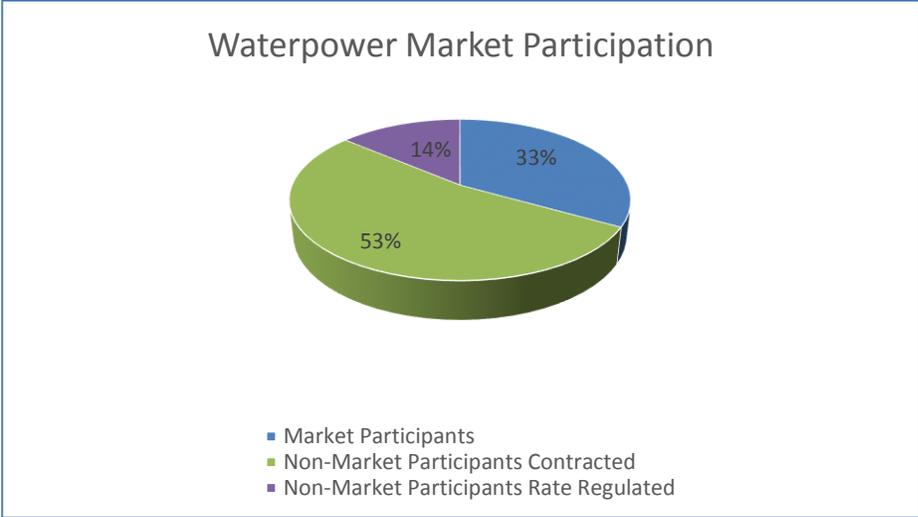
**Figure 1 – Ontario Hydroelectric Contracts**



Many of these facilities have been contributing to local, regional and/or provincial resource adequacy and reliability requirements as well as broader socio-economic objectives for decades. This “Made in Ontario” advantage should be a starting point for the current initiative.

In addition, as shown in Figure 2, more than half of the province’s waterpower fleet are contracted “non-market participants” and of those that market participants, several are self-scheduling. However, the IESO’s Resource Adequacy initiative focus appears to be primarily if not entirely on dispatchable market participant generation. Again, the composition of our existing assets should be a foundation upon which the design is built.

**Figure 2 – Market Participation**



Finally, the IESO’s presentation appears to have neglected the potential for relieving transmission and/or distribution constraints as a means of contributing to resource adequacy requirements through optimization of existing generation assets. Given the intent to align the identification of requirements with system planning forecasts, an explicit recognition of the role “wires” solutions could play is recommended.

## 2. Focusing on all five streams

While the vast majority of the IESO's materials were focused on Auctions and RFPs/Contracts, there were in fact five (5) "lanes" of potential investment identified. The OWA strongly recommends that efforts and resources be dedicated to each of these areas (IESO's "Streams") moving into the next stage of more detailed stakeholder engagement.

A great deal more clarity needs to be brought as to how these streams relate to one another in terms of allocated capacity, eligibility, timelines and design/setting appropriate incentives. We recommend less arbitrary eligibility criteria for these streams to ensure increased competition, while ensuring each take into account specific commercial realities of planning and investment.

Initial comments on each are provided:

### Programs

*Investments in assets, resources and businesses that can meet both electricity and non-electricity objectives.*

The example given here was "energy efficiency", but presumably this theme could also include "small hydro" (e.g. HCI Program), for which there is no obvious place in the market-focused design. Similarly, concepts such as Net-Metering, Indigenous/Community Economic Development or the creation of Load Serving Entities may fit within this stream. Much more detail is required regarding the IESO's intent and considerable stakeholder engagement will be required to develop the boundaries of this component.

### Capacity Auctions

*Remain as the IESO's primary mechanism for acquiring smaller amounts of capacity to meet short term needs.*

There are a number of elements of the now-abandoned ICA that have yet to be migrated to the evolution of the Demand Response Auction, most notably the "Multi-Year Commitment". Consultation and clarification are required to ensure the Capacity Auction is designed appropriately.

### Capacity auctions or targeted RFPs

*Re-acquire existing resources of a minimum size that have material costs to re-invest and extend their capability to meet medium term needs*

There needs to be a transparent means through which it is determined that an Auction or an RFP/Contract will be used. Considerable discussion is required on "*existing resources of a minimum size that have material costs*" as well as whether this is a mechanism only suited to unbundled capacity. I do not agree that only projects requiring capital cost expenditures should be eligible for multi-year commitments or a contract. Such a structure could perverse the market into making investments so they can get longer term clarity. There are a number of waterpower facilities that have been incited/required to make recent capital investments for which a contract for capacity, energy and ancillary services may be most prudent.

### RFPs

*Acquire newly-built resources or existing resources that require major upgrades to meet needs that are within long-term forecast confidence.*

For waterpower, the threshold for “major upgrades” is already defined through taxation regulation and policy (O. Reg. 124/02 defines an upgraded station as one with improvements “...that increase the station’s generation of electricity by at least two per cent on an annual basis” and a “redeveloped station” to include a “...substantially replaced power house and associated physical infrastructure for the conveyance and utilization of water”). It should be up to the proponent whether to make investments with the medium-term or long-term certainty of a contract.

### Government Policy

*Nuclear and large-scale hydro resources are based on long-term strategic views that capture more than just the forecasted electricity needs.*

While the description is appropriate, Nuclear and large-scale hydro are but two examples of resources based on “long-term strategic views”. The development of community based small hydro in remote First Nation Communities would be another, as may be certain transmission projects.

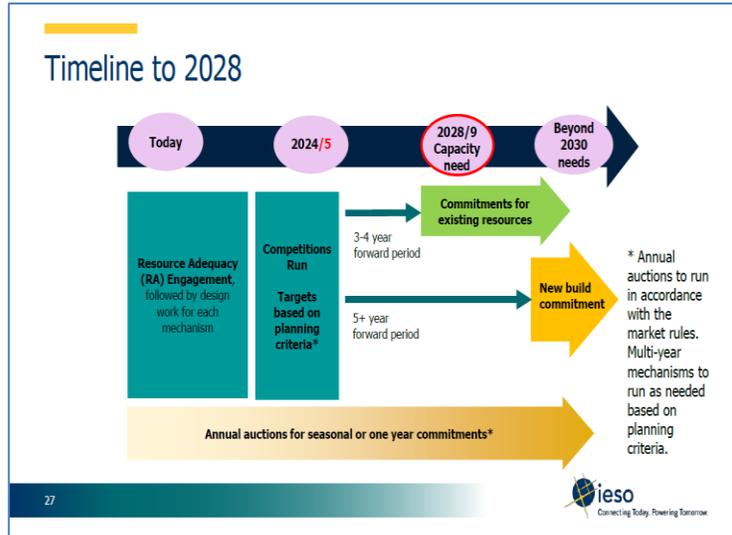
### 3. Planning now for transition

Slide 27 of the IESO’s September 28 presentation (reproduced below as Figure 3) outlines the proposed timelines for the implementation of (three of five) mechanisms to satisfy resource adequacy requirements the emerge by 2028. Against this consider the generic (and in some instances aggressive<sup>1</sup>) development timelines for waterpower (Upgrades/Efficiency Increases, Retrofits/Redevelopments, Greenfield) as represented in Figure 4. It is apparent that only medium to long term measures will support new waterpower investment, underscoring the value, in the short term, of reacquiring existing assets and extending their ongoing contribution to resource adequacy.

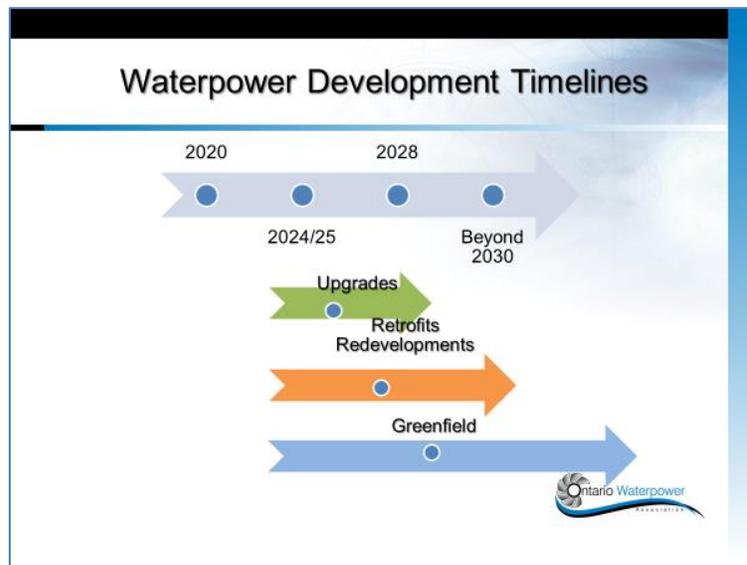
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<sup>1</sup> For example, 4-5 years for an upgrade could be achievable **if** everything lines up well on feasibility level engineering, internal and external approvals, detailed engineering, procurement (a new runner is about 1 year delivery ARO) and construction.

**Figure 3 – IESO Timeline to 2028**



**Figure 4 – Waterpower Development Timelines**



Moreover, there are more than one hundred (100) existing contracts for waterpower facilities that are scheduled to expire within this time horizon (e.g. HCI, RESOP, HESOP). As owners and operators of long lifespan assets with 20-30 year capital plans, waterpower proponents need to know well in advance of 2024/25 what mechanisms will be in place to support investment or whether to plan to divest the infrastructure and the associated water management regime back to the province.

#### 4. Ensuring meaningful engagement

In the IESO's presentation, participants were advised that, subsequent to written submissions, work streams for future engagement would be developed (November), recommendations to the IESO Board would be made (December) and a final High Level Framework would be presented to stakeholders (Q1 2021). I understand from subsequent discussions with IESO staff that there is now a plan to include the initiative as a component of the monthly engagement in November.

Given that this initiative was originally scheduled to commence in January 2020, beginning with a series of presentations from stakeholders, I am very concerned about the significantly compressed timeframe for engagement is what many would agree is one of the most critical pieces of work the IESO has undertaken in recent years. During the hiatus, the OWA worked with other supply-side organizations<sup>2</sup> to develop a High-Level Ontario Resource Adequacy Framework as a starting point for stakeholder engagement, a copy of which is provided as Appendix A. You will note that a number of themes expressed in this submission are reflected in that document.

As expressed above, I am of the view that there are some fundamental elements of the draft presented that require considerably more time and attention and, quite frankly, some that appear to simply be missing. While I recognize the key implementation timeline considerations, I encourage the IESO to work with stakeholders to develop the right framework from the outset.

Thank you for the opportunity to comment.



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Copy: OWA Generator Advisory Committee  
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Ministry of Energy, Northern Development and Mines

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<sup>2</sup> Consortium of Energy Suppliers, Canadian Renewable Energy Association (CanREA), Ontario Waterpower Association (OWA), Ontario Energy Association (OEA), Advanced Energy Management Alliance (AEMA), Association of Power Producers of Ontario (APPrO)

## Appendix A– High-Level Ontario Resource Adequacy Framework

**OBJECTIVE** A pragmatic resource adequacy strategy to ensure Ontario’s electricity supply needs are met safely and reliably at lowest possible cost to customers recognizing Ontario’s specific electricity market characteristics

### **FACTORING IN SPECIFIC ONTARIO SUPPLY**

- **Rate-Regulated Generation:** OPG’s baseload generation (i.e., nuclear and applicable hydroelectric) are rate-regulated by OEB, meeting supply needs
- **Embedded Hydro Generation:** Embedded hydroelectric generation are generally not practical to be wholesale market participants, and in addition to meeting supply needs are recognized as having additional benefits (i.e., environmental, public safety, etc.)
- **Nuclear Generation:** Bruce and Darlington refurbishment programs continue as contracted and rate-regulated generation, meeting supply needs

### **KEY ELEMENTS OF THE STRATEGY**

#### **1. ROBUST, FREQUENT, TRANSPARENT POWER SYSTEM PLANS**

- a. Clear and technical specifications of Ontario-wide and regional power system and supply needs, predicated on supply attributes with risk assessments of applicable resources’ ability to meet needs
- b. Ontario system planning data and information must meet ‘best-in-class’ standards to maximize transparency and interest in opportunities for investment and competition

#### **2. CAPACITY AUCTIONS – VOLUNTARY, SHORT-TERM, BALANCING**

- a. IESO administered auctions meeting short-term supply needs based on power system plans
- b. Optionality for resource participation – to greatest extent possible, auctions to meet supply needs should be competitive, flexible (e.g., on term), and resource agnostic

#### **3. CONTRACTS – VOLUNTARY, MID- TO LONG-TERM, ENSURING INVESTMENT**

- a. IESO administered procurement processes, as needed, resulting in executed contracts for resources (existing or new) required to meet supply needs based on power system plans over period longer than short-term
- b. Optionality for resource participation – to greatest extent possible, contracting processes to meet supply needs should be competitive, flexible (e.g., on term), and resource agnostic

#### **4. ENERGY AND ANCILLARY SERVICES MARKET PRICES AND CAPABILITY TO SUPPLY**

- a. Energy and ancillary services wholesale market prices should reflect actual demand/supply conditions/value
- b. Resources able to supply energy and ancillary services permitted to do so within competitive wholesale market, meeting supply needs in conjunction with other mechanisms (e.g., Capacity Auctions, contracts)

#### **5. ACCOUNTING FOR DERs**

- a. DERs (e.g., gas-fired, combined heat and power, solar, wind generation, energy storage, demand response, etc.) that are economic and affordable require a development and integration framework to cost-effectively and reliably help meet supply needs
- b. Need for regulatory framework review (i.e., regulated vs. unregulated, definition of customer, cost allocation across customers, rate design, etc.) and wholesale market design/rules to help determine cost-effective and reliable development and integration of DERs, including future roles of LDCs, DER suppliers, IESO, and OEB