



Intelligent energy for a greener planet

Demand Response Program

Expanding DR to Uncontracted (Stranded) Generators

February 12, 2019

Northland Power Endorses the IESO's Decision



- Northland Power Inc. (NPI) endorses the IESO's decision to provide "other" capacity resources including un-contracted generation the opportunity to participate / compete in the Demand Response (DR) auction for 2020
- Late 2018, NPI positioned this request along with the system benefits to the IESO hoping to find alignment in understanding
- This would allow un-contracted generators such as NPI's Kingston Cogen an opportunity to compete for capacity revenue between now and the 2023 Incremental Capacity Auction (ICA)
- Kingston has been a stranded asset since Jan. 31st, 2017
- This would help secure the long run viability of un-contracted generation as future capacity resources in Ontario.
- This change is making use of the flexibility that can be provided by existing assets

Who Benefits From This Change?



1. Rate Payers:
 - Increased competition and market based pricing (DR auction) provides the drivers for lower market prices for capacity

2. The IESO:
 - Adding more and different types of technology to capacity resources will increase the flexibility of the IESO system while increasing reliability
 - This change can create a smoother transition to the ICA in 2023

3. Uncontracted Generators:
 - Although this change benefits NPI now, it also paves the way for other uncontracted market participants to compete in future
 - NPI's asset just happens to be one of the first generators that is in a position of not having a contract

4. Other Capacity (e.g. storage, etc.)
 - This change could open the opportunity to energy storage and future technology as capacity should be agnostic to technology in the future

The Value of DR In Overall Planning Objectives

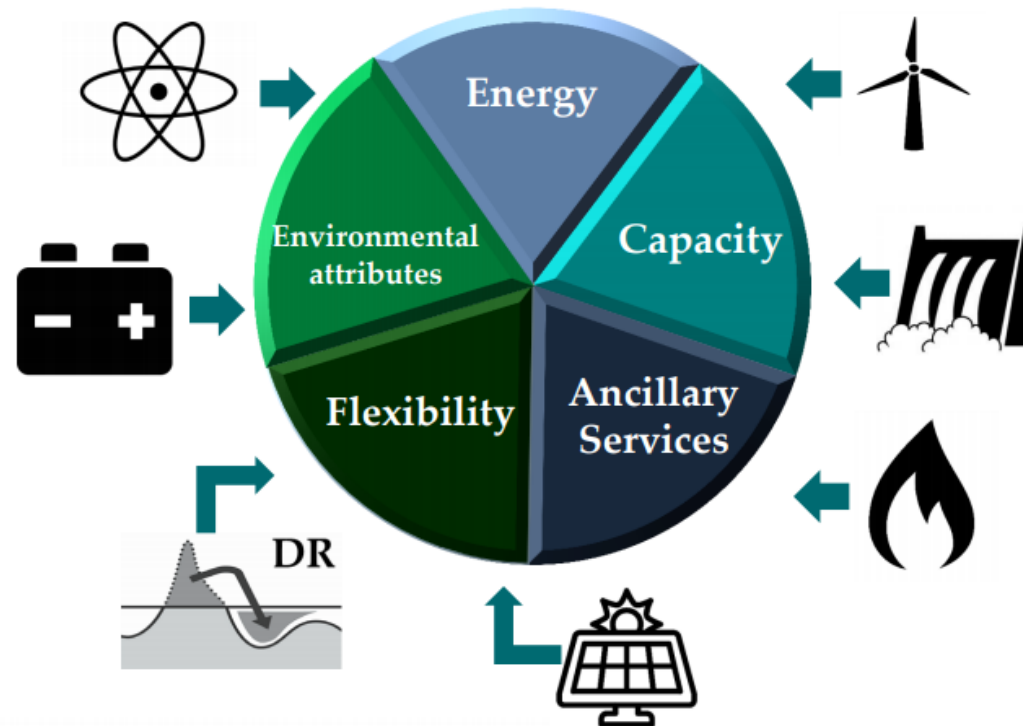


- As part of the overall planning process, the IESO focuses on system capacity and energy requirements as well as the attributes of the resources which might provide these products or services including reliability and cost effectiveness
- As part of the IESO's overall planning process, among the many things considered, consideration is given to the following:
 - Capacity
 - Energy
 - Ancillary Services (e.g. operating reserve, voltage controls, frequency regulation)
 - Flexibility (Load following or Ramping)
- As a DR resource, Generation can effectively provide all of the above products and services adding considerably to the reliability, stability and cost effectiveness of the system grid

Our Future Market Vision

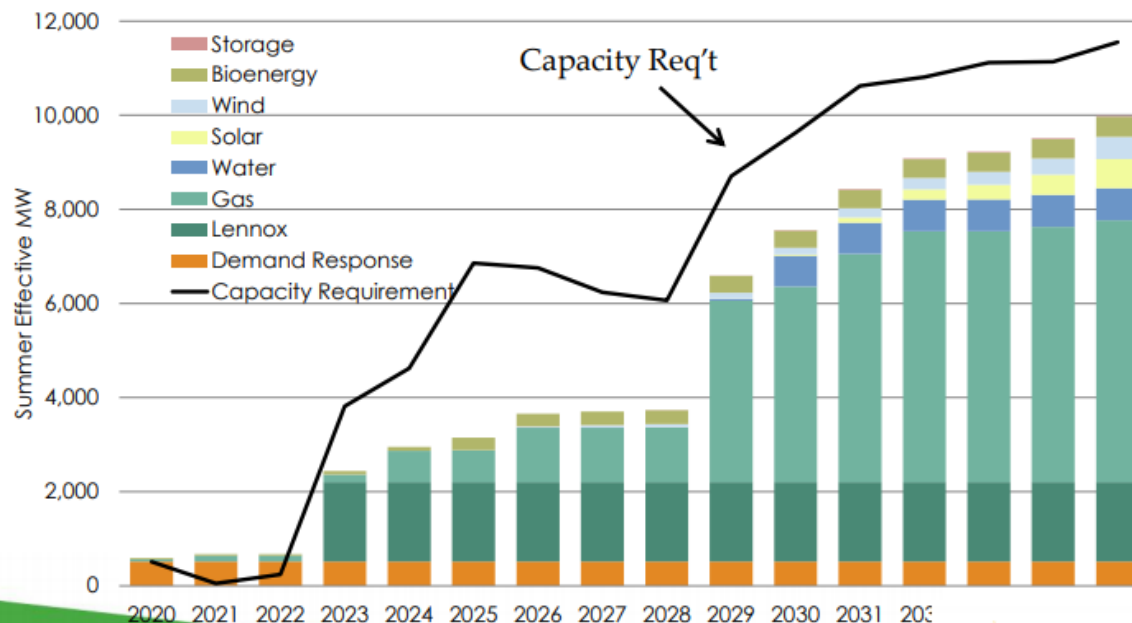
A more transparent and flexible marketplace based on clearly defined and “unbundled” products and services with clear price signals

Unbundled Services and Revenue Streams



Emerging Incremental Needs

- The size of the capacity need will increase as contracts expire
 - Summer effective MW available from expired resources will reach ~7.5 GW by 2030 and almost 10 GW by 2035
 - These facilities will have an opportunity to compete alongside all other resource types in ICA



How Will the Future Incremental Capacity Auction Value DR?



- As part of the Market Renewal Initiative, the future ICA will be agnostic to the type of resources that participate in the capacity auctions.
- Participants bidding resources are expected to compete against each other via the auction to secure capacity revenue.
- By making the necessary changes to market rules and IESO processes, the IESO is using market based mechanisms to secure capacity resources for now and the future (ICA) while providing the system capacity insurance over the next few years.

Questions?

