

DEMAND RESPONSE EVOLUTION IN ONTARIO

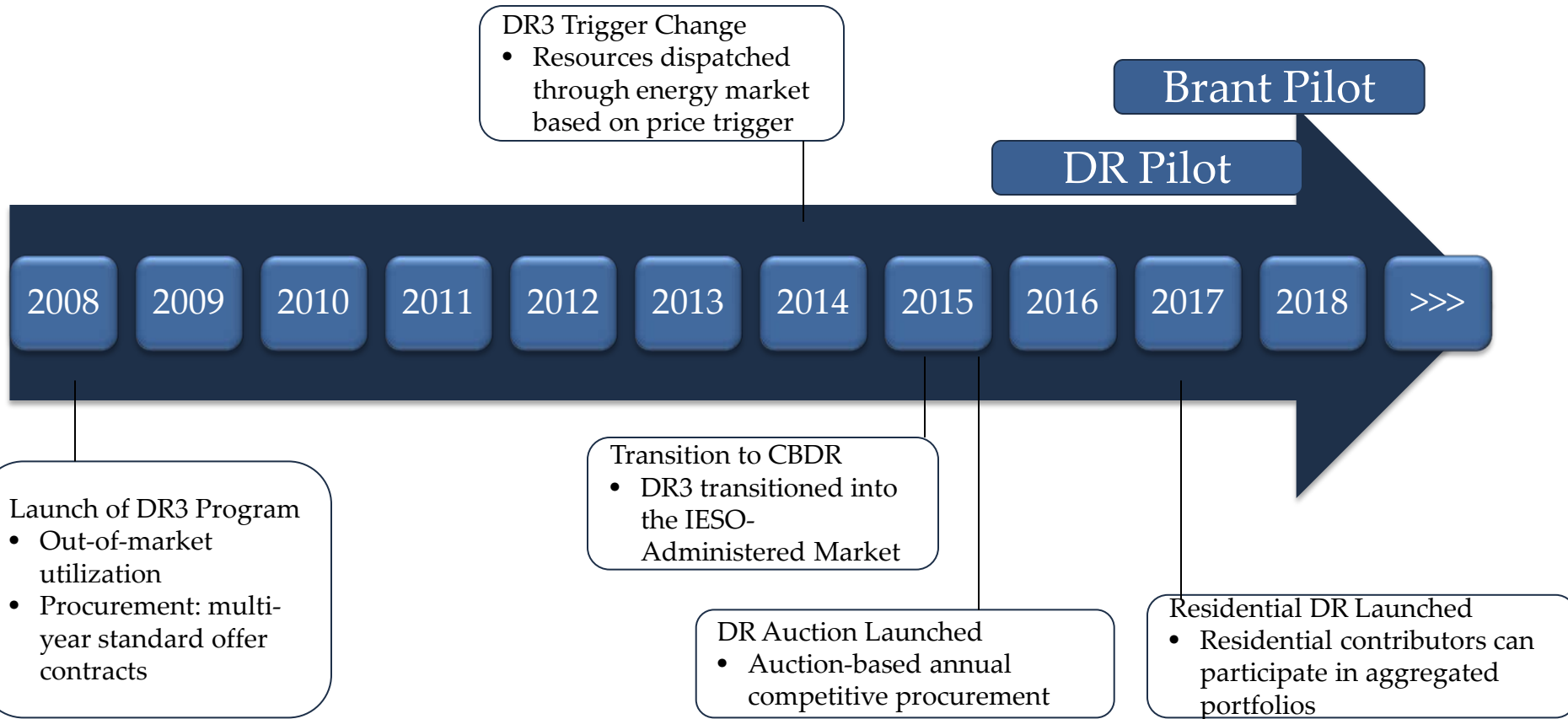
Demand Response Working Group
Meeting #6

November 30, 2016

IESO Goal for Demand Response

- Achieve greater value and economic use of DR through the IESO-administered market, maximizing opportunities through continuous improvement

Evolution of DR in Ontario



Lessons Learned

2014

Energy market dispatch of DR

2015

DR providers become IESO Market Participants

Transition to competitive auction procurement

2016

DR Pilot learnings

Participant-managed energy bids for HDR

Dispatch notification through private market reports

Stakeholder Feedback

DRWG

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DR SE

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DRWG

Future Evolution

Capacity Based Demand Response ✓

- DR2 and DR3 transitioned into IESO-administered market
- Contract-holders became IESO market participants, bound by IESO Market Rules
- Successfully integrated in April 2015

DR Pilot ✓

- Learn more about capabilities of DR resources
- Variety of participation
 - 5-minute and Hourly response
- Successful RFP held in June 2015

DR Auction ✓

- Competitive, flexible and transparent procurement platform
- Providers compete annually to provide DR Capacity to Ontario
- Successful Auction held in December 2015

Future Evolution

- Maximize opportunities for DR to participate in the IESO-administered markets
- 2017: Improve operability and utilization of DR resources in the energy market

Stakeholder Feedback

- Over the last year, the IESO has implemented a number of stakeholder-driven initiatives:

Capacity
Obligation Transfer

Target Capacity
Growth Trajectory

Randomized
Control Trials for
RDR

- Stakeholders' priorities shared with the IESO so far:

Min Resource Size
(1MW)

Commitment
Period Length

Dispatchable Load
in Aggregated
Portfolios

Shorter DR
Activation Blocks
(min 4 hr to 1 hr)

Capacity Transfers
during
Commitment
Period

2017 DR Workplan

- Before committing to a workplan the IESO wants to hear from stakeholders on opportunities to improve DR
- For 2017, IESO sees merit in pursuing the following priorities:
 - How HDR resources are called upon in the energy market
 - Review activation requirements (ie Standby and Activation Notice)
 - Review 4-hour dispatch block
 - Further integration of residential DR resources
- The final workplan agreed with stakeholders must consider IESO internal constraints on resources available to commit to DR projects

Feedback

- Please submit feedback to engagement@ieso.ca