

2018 DR WORK PLAN

Demand Response Working Group

March 1, 2018

Today's Objectives

- Recap of proposed work plan items (including feedback from last meeting)
- Review of 2018 Goals and Framework
- Overview of Approach for Evaluation of work plan items
- Results of Evaluation

Goal is to finalize the 2018 DR Work Plan

Purpose of the DR Work Plan

- The DR work plan consists of a list of priority initiatives identified by the IESO and DRWG
- Recent work plans have focused on establishing a stable market for DR, opportunities to increase participation and addressing issues in the auction design
- A key focus going forward will be ensuring DR is delivering its full potential and in a position to compete to meet Ontario's future capacity needs

Recap –Work Plan Items

Category	Item
In Progress	Improved utilization of HDR resources
	Utilization payments
	Greater clarity in test dispatch structure of HDR resources -closed
Other Items	Allow longer commitment periods
	Varying DR capacity obligations
	Review of Record of Installation requirements
	Dispatchable loads in aggregated resources
	Reduce minimum size for energy resources
	Shorten or eliminate standby notice for HDR resources
New in 2018	Focus more broadly on Demand management
	Create a resource sub-category for weather-sensitive loads
	Quantify the true financial value of Demand Response to the system - closed
	Update DR Baseline Methodology
	Construct a webpage that lists DRAPs/DRMPs -closed

Recap –Work Plan Items

- The Work Plan items in the previous slide were reviewed and discussed for accuracy at the Jan 30 DRWG meeting

New Items

- Stakeholders provided the following additional suggestions for inclusion in the Work Plan
 - Facilitating DR input into ICA
 - Evaluate the need for a 4 hour test for HDR resources
 - Smart EV charging as a DR resource
 - New Webpage
- These will also be reviewed in today's discussion
- Items not recommended for inclusion in 2018 Work Plan may be included in future discussions or directed to the other forums (ICA, NER RFI, etc) as appropriate

Recap -2018 Goals for Demand Response

2018 Goals for DR

Develop DR to ensure it can compete with traditional supply

Alignment with Market Renewal

Evaluation Criteria

Compatibility with goals for DR

Electricity market benefits

Ease of implementation

Timeline/urgency

Evaluation –Overall Approach

- Each work plan item reviewed against evaluation criteria
- Aim to provide a *consistent approach* across work plan items
- Results of analysis indicate how best to prioritize items for 2018
- Each item will include an IESO recommendation as to whether or not this should be a priority item for the 2018 work plan

Allow Longer Commitment Periods

Proposed Item: Allow some DR Auction commitment periods to be longer than current 6 month duration.

- Multi-year commitments may increase participation but reduce flexibility
- Would require substantial change to the DR auction design
- Commitment period duration is a design element of the ICA. This item. May be better directed to ICA design discussion

After review the IESO considers the ICA stakeholder engagement a more appropriate forum for discussion on this issue.

Varying DR Capacity Obligations

Proposed Item: Allow capacity obligations to vary on a monthly basis rather than be fixed for entire commitment period

- May increase participation and reduce barriers to resource types
- Would require substantial change to the DR auction design
- May be better directed to ICA design discussion

Similar to commitment period issue, the IESO considers the ICA stakeholder engagement a more appropriate forum for this discussion.

Review Metering Requirements

Proposed item: Review of registration requirements for the contributor management process including record of installation requirements, measurement data submissions, audit of DR resources and other metering related issues

- May help improve administration for DRMPs
- May help reduce barriers to participation from C&I loads
- Ensure data integrity

IESO is proposing to add this item to the 2018 work plan as an item for additional discussion

Reduce 1MW Threshold

Proposed Item: Reduce minimum size for energy resources to allow greater participation from smaller resources

- Significant undertaking to consider implications for entire IESO-administered markets
- Could be reviewed as part of the Long-term Energy Plan's directive on storage
- The IESO's non-emitting resource RFI is also an appropriate venue to discuss this item

The broad impacts of this change make it an issue that is beyond scope of DRWG alone –current strategy to address this issue being considered internally

Weather-Sensitive Load Sub-Category

Proposed Item: Weather-sensitive loads are more reliable and available in weather-driven peak

- May facilitate increased participation from this load-type
- Current HDR participation framework allows resources to submit energy bids reflective of capability
- The ICA stakeholder engagement will be developing a capacity qualification process and performance assessment requirements for different resource types

The IESO proposes that the ICA stakeholder engagement is a more appropriate forum for this discussion.

Update DR Baseline Methodology

Proposed Item: Include a re-evaluation of the in-day adjustment

- ICA currently discussing evaluation of compliance with dispatch – looking at % based approach
- A review and possible change to the current DR baseline methodology is a resource intensive project.
- Only 1 non-participant working group member brought up this initiative as a priority item

IESO is proposing to remove this item from the 2018 DR work plan but can be introduced as a work plan item in a future year.

Dispatchable Loads in Aggregated Resources

Proposed Item: Modify IESO systems to allow dispatchable loads to participate simultaneously as an energy market resource and as a contributor to an energy market resource

- Moving 5-minute DL to HDR reduces resource flexibility
- Creates distortion in load forecasts, market prices
- Runs *counter* to a core objective of increasing utilization and value of DR

The IESO can provide a presentation outlining this rationale in more detail at a future meeting if there is interest from DRWG members

Focus on Demand Management

Proposed Item:

- Understand whether and how already installed thermostats can be engaged after the fact for demand management
- Modify pre-existing programs to obtain customer commitment to participate in Demand Response in exchange for smart thermostats

Focus on Demand Management

- Outside of Auction/Market Renewal Framework
- Further study of issues required to determine benefits
- Further study of issues required to determine costs
- The IESO's non-emitting resource RFI is a more appropriate venue to discuss this item
 - <http://www.ieso.ca/-/media/files/ieso/document-library/working-group/market-renewal/ner-rfi-20171221-presentation.pdf?la=en&hash=A0397AC9FDD85B97380976B3591ED1FA436DB0E3>

IESO is proposing to remove this item from the 2018 work plan

NEW: Facilitating DR Input into ICA

Proposed Item:

- ICA design issues and discussions continue to evolve
- Certain areas where further DR perspectives would be welcome
- DRWG can be utilized as forum for more focused discussions on the impact of particular ICA design decisions

Facilitating DR Input into ICA

- Highly compatible with goals
- Helps ensure DR perspectives brought to bear on ICA design discussions
- Can be implemented within given resource constraints
- Helps prepare for future ICA

IESO is proposing to add this item to the 2018 work plan

NEW: DR Capacity Testing

Proposed Item: Stakeholders request the IESO review the need for an HDR test that is four-hours in duration. The IESO also wants to continue discussion on IESO expectations, needs and requirements from the testing process.

- Develops DR to compete against traditional supply
- Can be accommodated within existing resource constraints
- Can be evaluated within relatively short timeline

IESO is proposing to add this item to the 2018 work plan as an item for additional discussion

New: Smart EV Charging

Proposed Item:

- Consider developing a Smart Electrical Vehicle Charging Demand Management Initiative
- Initiative could access customer owned energy storage (EV battery) aggregation as a dispatchable resource
- Smart charging monitors the level of battery charge, customer requirements and remotely controls EV charging to locally meet LDC constraints

EV Charging

- Not applicable to current goals
- Benefits likely at the distribution level at this stage
- Current 1 MW threshold represents barrier to participation
- The IESO's non-emitting resource RFI is a more appropriate venue to discuss this item
 - <http://www.ieso.ca/-/media/files/ieso/document-library/working-group/market-renewal/ner-rfi-20171221-presentation.pdf?la=en&hash=A0397AC9FDD85B97380976B3591ED1FA436DB0E3>

IESO is proposing to not to include this item to the 2018 DR work plan. This topic could be considered as part of the IESO's work in Distributed Energy Resources.

New: New Webpage

Proposed Item:

- A stakeholder requested the IESO look at developing web content to better demonstrate the value of DR and to support communication about this resource to the broader sector.
- Revised webpage can help support goals
- Effective webpage can support market participation
- Can be accommodated within existing resource constraints
- Can be evaluated within relatively short timeline

IESO is proposing to add this item to the 2018 work plan

PROPOSED WORK PLAN

Proposed 2018 DRWG Work Plan

- Reflective of evaluation framework and 2018 goals
- IESO will have further discussions internally and with stakeholders on items flagged for additional review

Proposed 2018 DR Work Plan	
Confirmed Priority	Improved Utilization of DR
	Facilitating DR Input into ICA
	Review Webpage
Additional Review/ Discussion to Determine Priority	Utilization Payments
	Review Testing
	Review Metering Requirements
Not Priorities for DRWG in 2018	Allow Longer Commitment Periods
	1 MW Threshold
	DL in Aggregated Portfolios
	Varying DR Capacity Obligations
	Weather-Sensitive Load
	Review Baseline
	Focus on Demand Management
	Smart EV Charging

Next Steps

- To provide feedback on the proposed 2018 DR work plan, please submit comments by March 16 to engagement@ieso.ca