

# UTILIZATION PAYMENTS DISCUSSION

Demand Response Working Group

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March 1, 2018

# Purpose

- Continue discussion of the merits of DR utilization payments by reviewing stakeholder feedback received

# Recap

- The discussion on utilization payments for DR was a priority item put forth by stakeholders in the 2017 DRWG work plan
- The IESO commissioned a discussion paper to provide research on utilization payments to facilitate an informed discussion
  - At the Nov 16 DRWG meeting, Navigant presented the topics from the Utilization Payment discussion paper and facilitated a discussion on utilization payments
  - At the Jan 30 DRWG, IESO reviewed and discussed findings from the Navigant Utilization Payment discussion paper with stakeholders

# Feedback

- The IESO is looking for compelling rationales from the DRWG on the merits of DR utilization payments
- Feedback was requested to hear DRWG member perspectives and observations
- Feedback received generally falls into three categories:

Impact on  
Utilization

Fairness

Market  
Efficiency

# Utilization Frequency

## Stakeholder Comment

Utilization payments would incentivize residential DRMPs to bid lower energy prices, which could increase utilization.

- *In theory, providing a payment for DR utilization would incent participants to lower energy bid prices, which could lead to increased utilization of DR resources*
  - *Stakeholder feedback indicates that utilization payments may not lead to increased utilization*
- *Would a utilization payment reduce DR energy bid prices to materially impact utilization frequency?*
  - *The IESO has provided historical pricing statistics in a [presentation](#) at the Sep 12, 2017 DRWG meeting*

# Utilization for RPP Customers

## Stakeholder Comment

Residential customers on a regulated price plan (RPP) are not exposed to wholesale pricing. Exposure to high market pricing through utilization payments for residential customers has a high likelihood of improving performance of the resource and increasing activations.

- *Some participants may not be exposed to wholesale electricity pricing and as a result may not receive the benefit from DR activations*
- *The IESO is requesting more detail from stakeholders on the materiality of the matter including MWs impacted and quantifying likely bid price behaviour change from a utilization payment*

# Utilization Payments in Past DR Programs

## Stakeholder Comment

CBDR resources were prepared to activate at \$200/MWh provided they received this payment demonstrating that revenue is a strong incentive for activation.

- *The historical contracting programs required DR energy bids to be priced at \$200/MWh. Once the \$200 price requirement was removed for HDR resources, the IESO observed that the majority of DR bids were priced by participants much higher than \$200/MWh*
  - *Implies DR participant's value of energy consumption is much higher than this level*

# Utilization Payment Lowering Costs

## Stakeholder Comment

If paying a DR resource for utilization reduces the cost of electricity, then DR payments are positive system benefit.

- *The IESO agrees that if a DR utilization payments could reduce total system costs then it does yield a positive system benefit*
  - *However, providing a utilization payment may reduce the cost of the energy price of electricity for that event but other system costs such as uplift and capacity costs would increase*
- *Introduces a market inefficiency issue because one resource type receives an unfair advantage*
- *On balance, it is not clear that there would be a positive system benefit*



# Utilization Costs

## Stakeholder Comment:

There are costs to activate DR including opportunity costs and process costs. Utilization payments help offset those costs.

- *DR participants may incur costs to be utilized for DR. However, energy resources have the capability to reflect these costs in their energy bid price. While this may result in infrequent economic utilization, it is reflective of the energy market competitiveness of the resource.*

# Negawatts and Megawatts

## Stakeholder Comment

IESO should support DR utilization payments based on the premise that “negawatts” and megawatts are functionally and economically equivalent

- *The IESO agrees that resources should be treated equally for the type of service provided*
- *The IESO has explored the impact of “negawatts” and megawatts through examples in the following slides.*

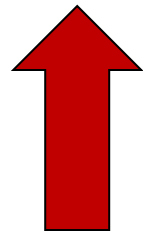
# Negawatts and Megawatts

## IESO Example 1

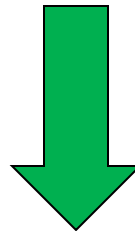
- Assume ABC Corporation owns a widget factory and a generator each individually participating in the IESO market

ABC Corp.  
Widget  
Factory  
*withdraw 6MW*

ABC Corp.  
Generator  
*inject 4MW*



Net Consumption  
2MW



IESO Market  
*Market Price = \$100/MWh*

ABC Corp. Energy Bill	
Net Consumption MW	2MW (6MW-4MW)
Energy Price	× \$100
Net Settlement	\$200

# Negawatts and Megawatts

## *IESO Example 2*

- Now assume ABC Corp. widget factory participates in DR by installing a behind-the-meter generator or interrupts production with the same 4MW
- Both examples yield the same settlement result



ABC Corp. Energy Bill	
Net Consumption MW	2MW (6MW-4MW)
Energy Price	× \$100
Net Settlement	\$200

**IESO Market**  
*Market Price = \$100/MWh*

# Negawatts and Megawatts

## IESO Example 2



↑  
Net Consumption  
2MW

IESO Market  
Market Price = \$100/MWh

- Now assume ABC Corp. widget factory participates in DR by installing a behind-the-meter generator or interrupts production with the same 4MW
- **If a DR utilization payment is made, ABC Corp. receives an extra payment**

### ABC Corp. Energy Bill

Net Consumption	2MW (6MW-4MW)
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Energy Price	× \$100
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Net Settlement	\$200	<b>+ Utilization Payment</b>
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# Negawatts and Megawatts

- The previous examples illustrate that the current practice of **not** providing a utilization payment is equal treatment for resources providing “negawatts” and megawatts
  - Is there anything the IESO has missed or not considered?
- Example 1 and Example 2 should yield the same settlement impact because its impact to the IESO market is the same. However, if a DR utilization payment is made in Example 2, the ABC Corp receives an additional payment, which is unequal treatment

# IESO OBSERVATIONS

# Observations

- Some indication that utilization payment for load **not** exposed to market price identifies a potential area for further discussion
  - The IESO is interested in receiving more detailed information from stakeholders on materiality and likely behaviour change
- No clear indication that utilization payments would increase activation for most load types
  - Stakeholders have indicated VOLL is very high and sometimes in excess of MMCP
- Based on the “Negawatt and Megawatt” example, it appears that current practice for compensating DR utilization is equivalent treatment and a DR utilization payment would introduce non-equivalent treatment



# Next Steps

- The IESO does see merit in continuing discussion on utilization payments for participants **not** exposed to market pricing but it is unclear to the IESO on the impact of utilization payments on these types of participants
  - The IESO is requesting more detail from stakeholders on the materiality of the matter including MWs impacted and quantifying likely bid price behaviour change from a utilization payment
- For resources exposed to market pricing, does not appear to have merit to continue discussions for now
- Based on the quantity of stakeholder feedback received, the IESO does not see strong interest from the DRWG on this topic
  - Only two members submitted feedback on this issue and members declined to present their views for discussion at the DRWG
  - Unclear if this continues to be a priority item to the working group

# Next Steps

- Feedback can be sent to [engagement@ieso.ca](mailto:engagement@ieso.ca) by Mar 16, 2018.
- The IESO is also willing to meeting with stakeholders individually if they would like to share information not suited for the wider DRWG audience