

# Demand Response Testing

Demand Response Working Group

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# Purpose

- Outline IESO plans for testing DR resources and ensure participants understand their obligations and consequences of non-performance

# DR Resource Testing

- In the Incremental Capacity Auction (ICA) it is expected that supply and demand side resource performance will be assessed by Capacity Check Tests where a resource's capability will have to be demonstrated with considerations such as: Timing, Frequency, and Financial implications

Performance Assessment	Present	Future – ICA
Demand side resource	DR test activations	Capacity Check Test
Supply side resource	Connection Assessments, equipment commissioning, and NERC testing	

# DR Resource Testing

- To date, DR resources have been utilized infrequently and the IESO must have assurance of the reliability of DR resources in order to rely on DR capacity to meet capacity needs in the ICA
  - DR test activations are the most effective way to build confidence and provide assurance of reliability of DR resources
- Repeated testing will help prepare DR resources for the future, track performance, and with adequate history provide assurance of the reliability of DR resources
- IESO plans to test all Physical and Virtual DR resources in each commitment period and re-test participants that fail
  - In the near term, this will likely mean an increase in test frequency
- The IESO will follow up with participants that fail activation tests to offer assistance and may investigate the non-performance further

# DR Resource Testing

- As per Market Rules Chapter 7, 19.4.11 and 19.5.7, IESO may direct DR resources to perform activation testing with up to two test activations per commitment period
- Market participants can request to be tested at another time if they are unable to proceed with the test activation
  - Must file non-performance event; and
  - Bids should reflect inability to provide load reduction

# Consequences of Test Failure

- The DR Market Participant will receive non-performance charges for failing a test activation primarily through two settlement charges:
  - **Capacity Charge (failure to provide capacity)**
    - Availability Payment for the month is clawed back
    - Capped at one charge per month
  - **Dispatch Charge (failure to follow dispatch)**
    - Additional charge equivalent to the Availability Payment for the MW the DR resource failed to curtail multiplied by the hourly demand response auction clearing price
    - This charge is multiplied by a non-performance factor (1x, 1.5x, or 2x) depending on whether activation is during a peak period

# Consequences of Test Failure

- Test failure may also be referred to IESO's Market Compliance and Assessment Division (MACD) as a potential market rule non-compliance
- As per Market Rules Chapter 7, 19.4.8 and 19.5.4, IESO may disqualify participation from future DR auctions when resource fails to provide performance consistent with the requirements

# References

- To setup or for enrolling in next DR auction training, please email: [marketplacetraining@ieso.ca](mailto:marketplacetraining@ieso.ca)
- IESO Market Rules Chapter 7: <http://www.ieso.ca/sector-participants/market-operations/-/media/b174dfbb05144d1b914529fbe39fb813.ashx>
- DR Auction Training guide: <http://www.ieso.ca/-/media/files/ieso/document-library/training/introduction-to-the-demand-response-auction.pdf?la=en&hash=8A49ED6AF4183399AE52DD713A3651707C627F0D>
- ICA Capacity Check Test: <http://www.ieso.ca/-/media/files/ieso/document-library/engage/ica/ica-20171106-presentation.pdf?la=en&hash=AA9948C5352041018FBD9DE017F46B06271B11D2>