
JULY 21, 2022

Market Renewal – Energy Project Implementation Market Power Mitigation

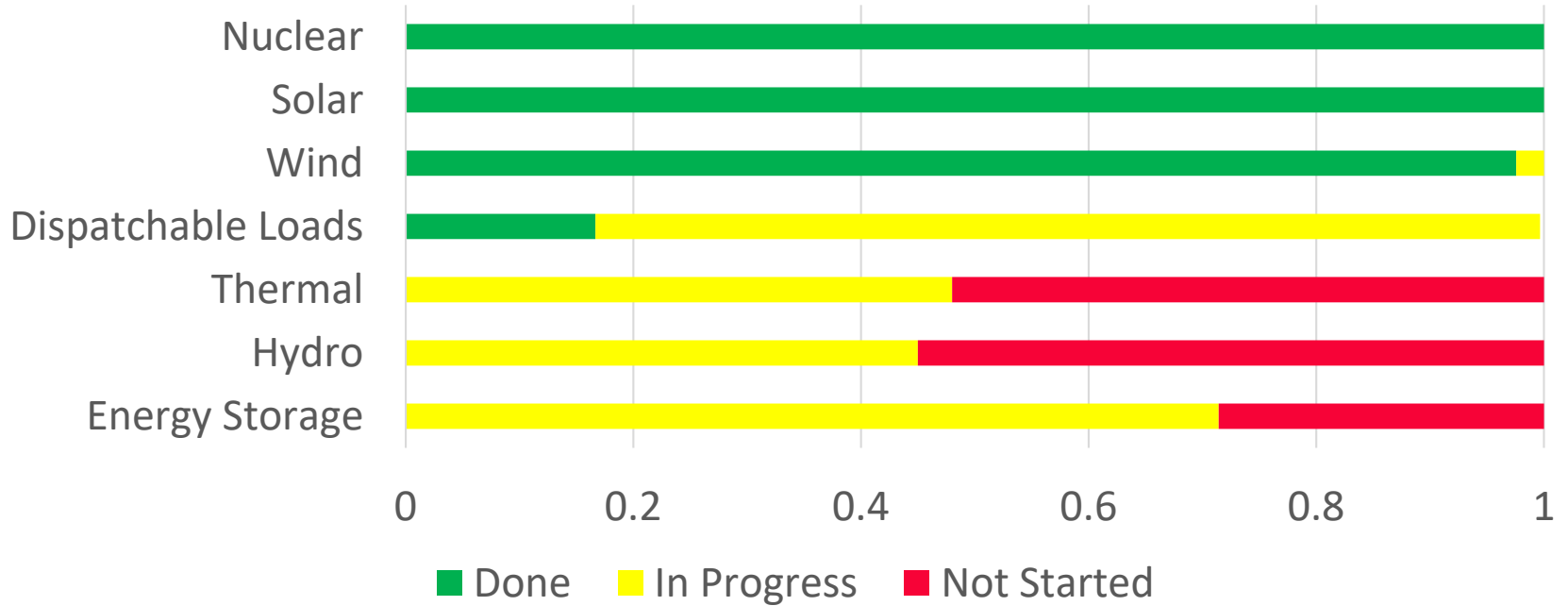
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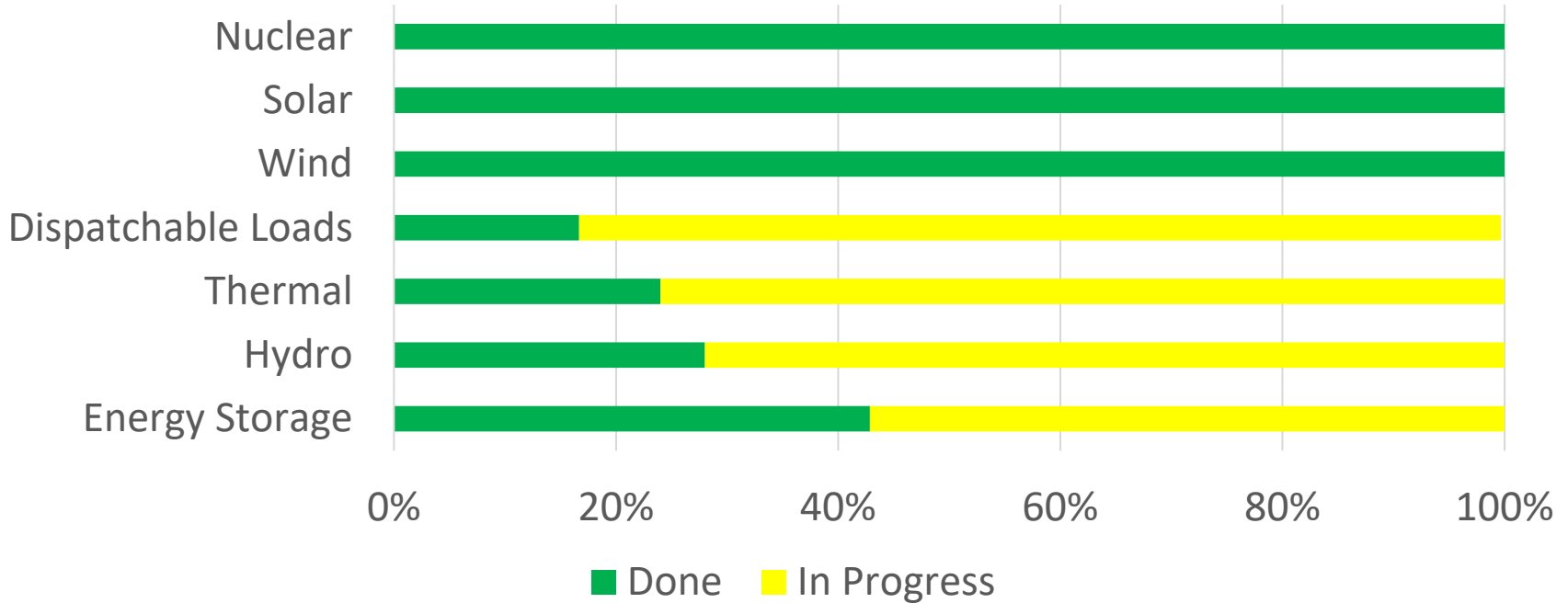
Agenda

1. Update on reference level consultations
2. Updates to market power mitigation documents
 - Market Manual 14.1
 - Market Manual 14.2
 - FAQ and Worksheets
3. Next steps

Reference Level Consultations: February 2022



Reference Level Consultations: June 2022



Updates to Market Power Mitigation Documents

- In May 2022, the Technical Panel voted to provisionally approve the draft market rules for Market Power Mitigation
- Based on feedback from the Technical Panel and from market participants, received during the ongoing reference level consultations, the IESO has introduced additional, clarifying details in Market Manual 14.1 and Market Manual 14.2
- No additional changes to the market rules have been proposed at this time

Updates to Market Power Mitigation Documents

- Market Manual 14.1: Details regarding execution of the impact test via simulation for ex-post mitigation
- Market Manual 14.2: Procedural details with respect to the independent review process, updates regarding reference level value calculations for cascade hydro, energy storage and thermal resources
- FAQ document: Updates to align with market power mitigation Market Manual and Market Rule content, new questions from participants and the addition of a new appendix showing conduct and impact thresholds
- Workbooks: Updated layout



Market Manual 14.1

Ex-Post Mitigation Impact Test Details

Clarification regarding the simulations required to carry out the impact test for ex-post mitigation have been added:

- Section 5.6: How simulations required to carry out the impact test in various scenarios for physical withholding will be calibrated
- Section 6.3: How simulations required to carry out the impact tests for inertia withholding will be calibrated

Ex-Post Mitigation Impact Test Details: Physical Withholding

- Section 5.6.1: How the IESO will use the relevant reference level, combined with the submitted offer, to determine the offer curve to use in the simulation
- Section 5.6.2: How the IESO will calibrate a simulation to carry out the impact test, including determining which resources will have their offers modified in a single simulation

Ex-Post Mitigation Impact Test Details: Intertie Withholding

- Section 6.3.1: How the IESO will use the relevant reference level, combined with the submitted offer, to determine the offer curve to use in the simulation
- Section 6.3.2: How the IESO will calibrate a simulation to carry out the impact test including determining which boundary entity resources will have their offers modified in a single simulation



Market Manual 14.2

Market Manual 14.2 Updates

- Independent Review Process: Additional procedural details
- Opportunity Costs: Additional information and clarification
- Thermal: Reference levels for combined cycle resources
- Hydroelectric: Reference levels for cascade groups
- Energy Storage: New process related content and information with respect to accounting for global adjustment costs

Independent Review Process Details

- Section 3.5.1: Explanation of topics eligible for independent review (financial reference levels, non-financial reference levels and reference quantities)
- Section 3.5.2: Actions required of the IESO and market participants related to the procurement of an independent reviewer
- Section 3.5.3: Details with respect to interactions between the IESO and market participants related to the procurement of an independent reviewer and clarification with respect to the degree of independence required of the reviewer.

Opportunity Cost Details

- Section 6.4.1: Procedural changes related to IESO evaluations of requests for additional opportunity costs
- Section 6.4.4.2: The storage horizon has been capped at 365 days for the storage horizon opportunity cost calculation
- Section 6.4.4.3: Information provided with respect to how efficiency adjustments are calculated for resources that consist of more than one generation unit
- Section 6.4.5: Clarification with respect to the application of the forebay refill opportunity cost calculation for hydro resources that are part of a cascade group vs those that are not

Thermal & Hydroelectric Resources Details

- Section 7.1: Updated to reflect that combined cycle facilities provide a single set of reference levels for combined cycle operations rather than a set of reference levels for each possible combined cycle configuration
- Section 7.2.5.2: Updated to reflect that for hydro resources that are part of a cascade group and that are downstream resources, the energy offer reference level values are capped to preserve efficient dispatch in the real-time market
- Various editorial updates

Energy Storage Resource Details

- Section 7.6.1: Clarification with respect to the way in which energy storage resources can account for global adjustment in reference level determinations
- Section 7.6.1.1: Clarification with respect to responsibilities for carrying out certain analyses and guidance with respect to various data related scenarios



FAQ Document & Workbooks

FAQ Document Updates

- Added content reflective of discussions during reference level consultations since the last update, such as how to determine transition points between hot, warm and cold thermal states and how these transition points affect reference levels for non-financial dispatch data
- Editorial updates to reflect market power mitigation documents that were published since the last update (i.e., market power mitigation draft market rules and market manuals)
- Appendix: A new appendix showing the conduct and impact thresholds used for assessing market power mitigation.

Workbooks

- The IESO has updated the layout of the blank workbooks in response to reference level consultations since the last update
 - New fields have been added where necessary and existing fields have been modified to provide more clarity on expected inputs
- The example workbooks for thermal resources have been updated in response to reference level consultations since the last update. Content has been modified to provide more clarity on how requested reference levels are constructed by market participants

Next Steps

- Clean and redline versions of Market Manual 14.1 and 14.2 and clean versions of the FAQ document and workbooks have been published on the IESO website: [Implementation Phase Documents \(ieso.ca\)](https://ieso.ca/implementation-phase-documents)
- Stakeholders are invited to review the updates to the documents and provide written comments related to the incremental changes prior to **August 5, 2022**

Thank You

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