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Champlain Hudson Power Express (CHPE): Capacity Market Integration Considerations

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June 3, 2025

Background

- CHPE is a 1,250 MW high-voltage direct current (HVDC) transmission project connecting Hydro Quebec to Load Zone J
- Construction began in November 2022, with publicly available information currently indicating an anticipated in-service date of May 2026[1]
- Once Unforced Capacity Deliverability Rights (UDRs) are awarded and the project is in-service, CHPE can, consistent with the requirements for UDRs, start participating in the capacity market by offering ICAP into Load Zone J to meet the NYCA Installed Reserve Margin (IRM) and the New York City Locational Minimum Installed Capacity Requirement (LCR) for 2026 – 2027 Capability Year
  - To participate in the capacity market for the 2026-2027 Capability Year, a request for the award of UDRs and election for use of any such awarded UDRs must be submitted prior to August 1, 2025
- If UDRs are timely awarded, actual capacity market participation consistent with a prior election for the use of such UDRs may not align with the start of the Capability Year

[1] https://chpexpress.com/construction-progress/

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Considerations for the 2026–2027 Capability Year

- **NYISO's capacity market is set up with mostly annual inputs and some seasonal parameters:**
  - The IRM study makes inclusion assumptions for the entire Capability Year, which will generally carry through into the LCR study, import rights study and Capacity Accreditation Factor (CAF) calculations
    - UDR usage elections are established for the entire year based on the information provided by UDR holders
  - Demand curves and unit specific derating factors are updated for each of the Capability Period (i.e., season)
- **The assumptions applied to CHPE UDRs will impact the inputs for relevant capacity market parameters (i.e., IRM, TSL floor values and LCRs, import rights, and CAFs), as well as the seasonal parameters (i.e., demand curves, unit specific derating factors, etc.)**
- **Misalignment between assumptions imbedded in the capacity market parameters and actual capacity market participation of CHPE UDRs can arise**
  - For example, if the IRM study model includes capacity supplied using CHPE UDRs, but CHPE does not reach in-service and/or commence capacity market participation until after May 2026
- **Similar alignment concerns can arise with all capacity supply resources (new entry and exit); however, the nature of the CHPE project warrants careful consideration**
  - CHPE is greater than 10% of the Summer 2026 forecasted peak load for Load Zone J; and
  - As a New York City capacity supply resource, assumptions regarding the CHPE UDRs can impact the nature/magnitude of the contingencies considered in assessing transmission system transfer capability into New York City, as well as the transmission security limit (TSL) floor value for New York City

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Considerations for the 2026-2027 Capability Year (cont.)

- **Considering the significance of the CHPE UDRs on the resulting market parameters, the NYISO recommends the development and potential use of two sets of market parameters if the final 2026-2027 IRM study model assumes use of the CHPE UDRs. Development of two sets of market parameters is being considered to help improve potential alignment of market parameter assumptions and actual market conditions; however, achieving "perfect" market alignment may not be feasible**
  - This is a similar concept to the existing rules that allow two sets of LCRs to be developed to recognize a new UDR capacity supply interconnecting with a neighboring region with a misaligned capacity year start date (i.e., neighboring market's capacity year does not start May 1)
- **The two sets of market parameters would be based off the following cases:**
  1. CHPE is not in service and its UDRs are not used to supply capacity (no changes to the status assumptions of any other resource)
  2. CHPE is in service and its UDRs are used to supply capacity (no changes to the status assumptions of any other resource)
- **The following market parameters would be developed for the two cases:**
  - TSL floor values and LCRs
  - CAFs and associated unit specific deratings factors
  - System translations factors, UCAP demand curve parameters, and Load Serving Entity (LSE) minimum capacity requirements
- **If: (1) the final 2026-2027 IRM study model assumes CHPE is in service and its UDRs are used to supply capacity, and (2) the CHPE UDRs are not ready for participation in the ICAP market for the May 2026 delivery month, the NYISO proposes that market parameters based on the case assuming CHPE out of service (i.e., case no. 1 above) would be used until the CHPE UDRs are ready for participation in the ICAP market, at which point market parameters for the case assuming CHPE in service (i.e., case no. 2 above) would be used for the balance of the 2026-2027 Capability Year**
  - The NYISO would provide advance notice as to which set of market parameters will be used for May 2026 and, if the participation of the CHPE UDRs is delayed beyond May 2026, the timing for any subsequent required change to the alternative set of market parameters

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Considerations for the 2026-2027 Capability Year (cont.)

- **The NYISO recommends that a single case be used to develop the following market parameters for the 2026-2027 Capability Year:**
  - Import right limits
  - Peak Load Windows
- **The NYISO is continuing to evaluate the appropriate case to use for these two parameters**
  - Use of the case that provides the more conservative outcomes may be an appropriate selection
  - Use of the case that assumes CHPE is in service and its UDRs are used to supply capacity (expected long term system conditions) may also be an appropriate selection
  - For the Peak Load Windows, the existing 10-hour Peak Load Window for summer may be sufficient to address the required 90% of the loss of load risk for both cases
- **The NYISO would need tariff authority to allow for the potential use of more than one set of market parameters for the 2026-2027 Capability Year in response to the potential conditions described herein and will collaborate with stakeholders to develop and seek approval of such rules**
- **The NYISO is also continuing to monitor the progress of the CHPE project, and closely coordinating with the NYSRC on the IRM modeling assumptions for the 2026-2027 Capability Year**

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Next Steps

- Return to the ICAP Working Group to further discuss CHPE considerations for the 2026-2027 Capability Year

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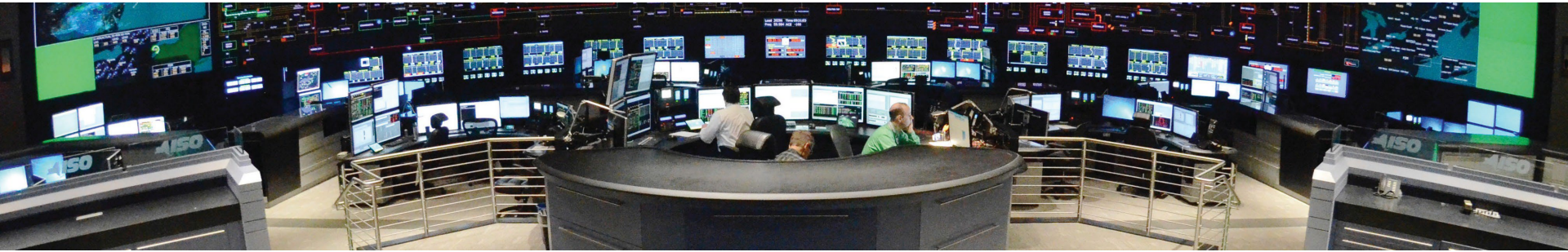
Our Mission and Vision

Mission

Ensure power system reliability and competitive markets for New York in a clean energy future

Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation



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