



# Do Not Exceed Dispatch Requirements

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*Key points for Wind and Intermittent Hydro resources*

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MARKET DEVELOPMENT



# Purpose of DNE Dispatch

- DNE Dispatch accomplishes four goals
  - Allow transmission reliability/congestion to be managed by dispatch software systems, not manually by System Operators
  - Improve utilization of existing transmission infrastructure, thereby reducing the generation currently lost to curtailments
  - Determine dispatch decisions that are consistent with Participants' economic preferences, as expressed by market offers
  - Allow market offers and dispatch decisions to be reflected in LMPs (congestion pricing)



# Important Requirements for DNE Dispatchable Generators (DDGs)

- Must offer into the Day-Ahead Market
  - Offer reflects the Participant's estimate of expected generation in Real-Time
  - Why? – To facilitate Day-Ahead Market solutions that closely resemble actual Real-Time requirements (improved DA/RT convergence)
- Must receive and respond to Real-Time telemetered DNE dispatch instructions in accordance with a market offer
  - Each DDG will receive a DNE Limit every 5 minutes via its RTU
  - The generator's response must be consistent with the plant's physical performance capabilities
  - The DDG may operate at any level between 0 MW and the DNE limit
  - The DNE limit considers offer price, LMP and reliability constraints
  - A DDG should never exceed its DNE limit (except temporarily while ramping down to a new lower DNE limit)



# Forecast Requirements for Hydro DDGs

- DNE Dispatch requires accurate short-term forecasts of maximum potential generation for each DDG
- For wind resources, this is provided by the ISO's existing Short-Term Wind Power Forecast system
- For hydro resources, each plant operator provides this information by redeclaring EcoMax to the new forecast value
  - EcoMax must be redeclared whenever maximum potential generation changes, due to water conditions, license restrictions, recreational requirements, public safety, maintenance requirements, equipment outage, or any other reason



# Price Implications of DNE Dispatch

- When a DDG receives a DNE Limit that restricts output below the DDG's forecast output, it will set price based on its offer
  - This means market offers will have important consequences and should be carefully considered
  - Higher priced offers are dispatched down before lower priced offers
  - If a negative offer ends up setting price, generators will pay for MWhs injected onto the grid!

