



Item 5.3: 2018 Summer Markets – Factors that Drive Pricing Outcomes

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Price Adders Overview

Two types of price adder:

Reserves Price Adder (ORDC)

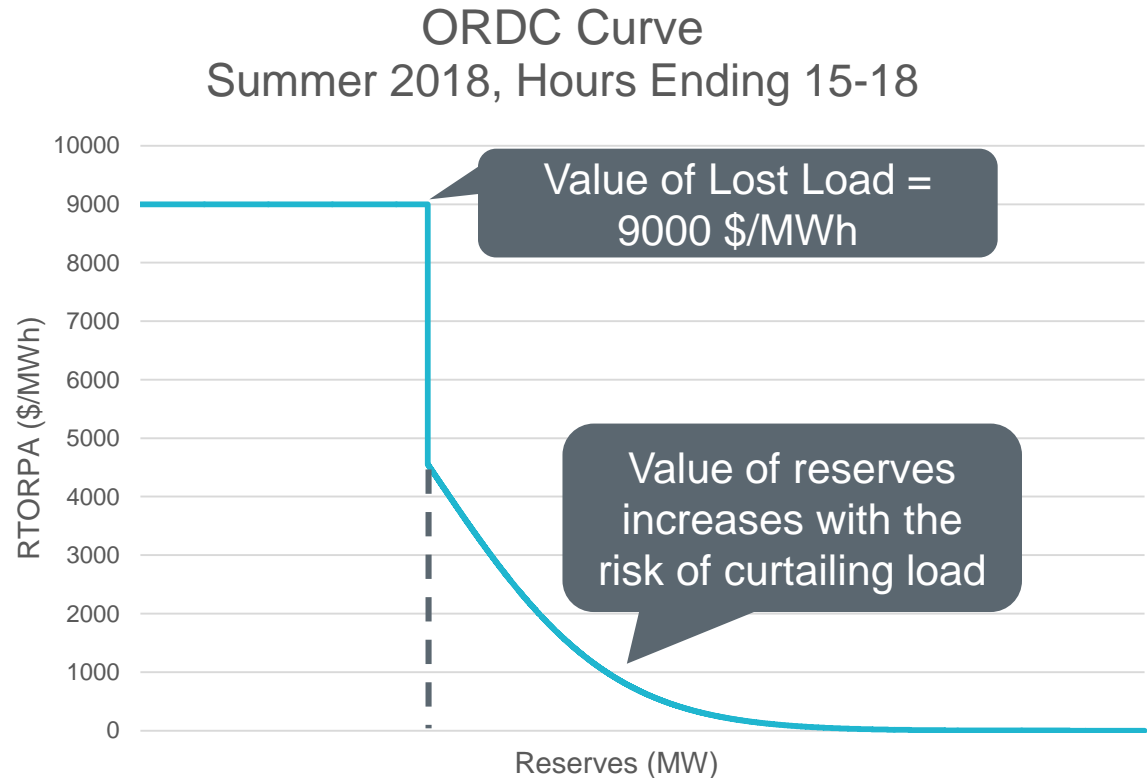
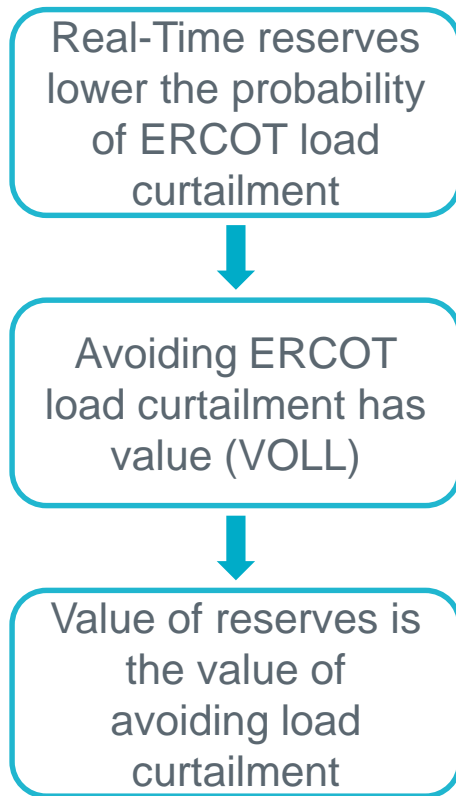
- Reflect value of reserves
- Increase as reserves decrease

Deployment Price Adder (RTORDPA)

- Align pricing with system conditions
- Triggered by reliability deployments like RUC
- Two SCED runs



Operating Reserve Demand Curve (ORDC)



ORDC Price Adders are the product of the probability of reserves falling below the minimum level and the difference between the Value of Lost Load and System Lambda

Determining the ORDC Curve

The probability that reserves fall below the minimum level is **determined by historical values** with different probabilities reflected by **6 ORDC curves for each season**

Online Reserves Price Adder

- Value of capacity able to respond immediately
- Contributes to preventing load curtailment in both halves of the hour
- Probability of reserves falling below a minimum level over 30 minutes

Offline Reserves Price Adder

- Value of capacity that would be able to respond in 30 minutes
- Contributes to preventing load curtailment in the second half of the hour
- Probability of reserves falling below minimum level over second half of the hour

Reliability Deployment Price Adder

Deployments triggering RTORDPA:

Reliability Unit Commitment (RUC)
Reliability Must-Run Commitment (RMR)
Load Resources other than Controllable Load Resources
Emergency Response Service (ERS)

Purpose

When operators take actions for reliability purposes prices may not reflect system conditions. Reliability Deployment Price Adder counteracts the pricing effect of deployments

Calculation

SCED is run a second time, removing the reliability deployment MWs

The Price Adder is the difference between observed prices and prices without the reliability deployment