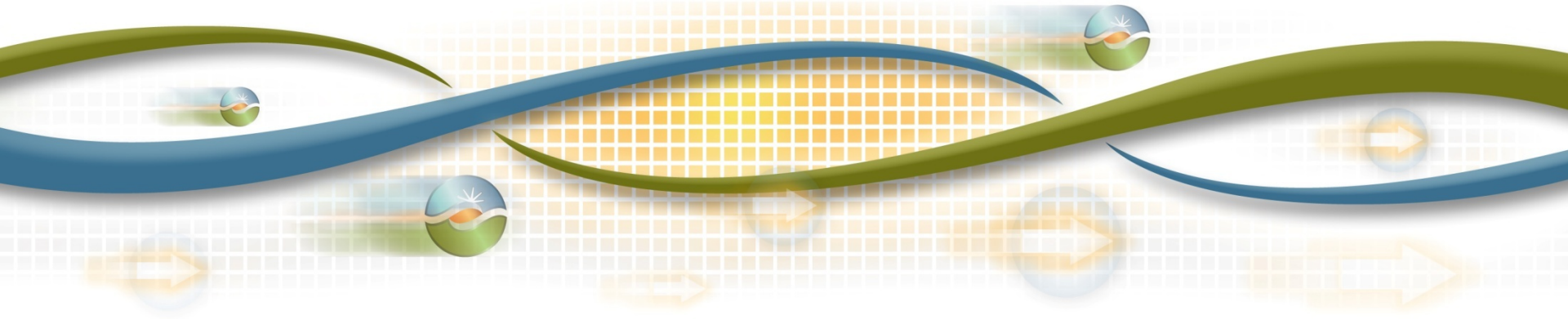


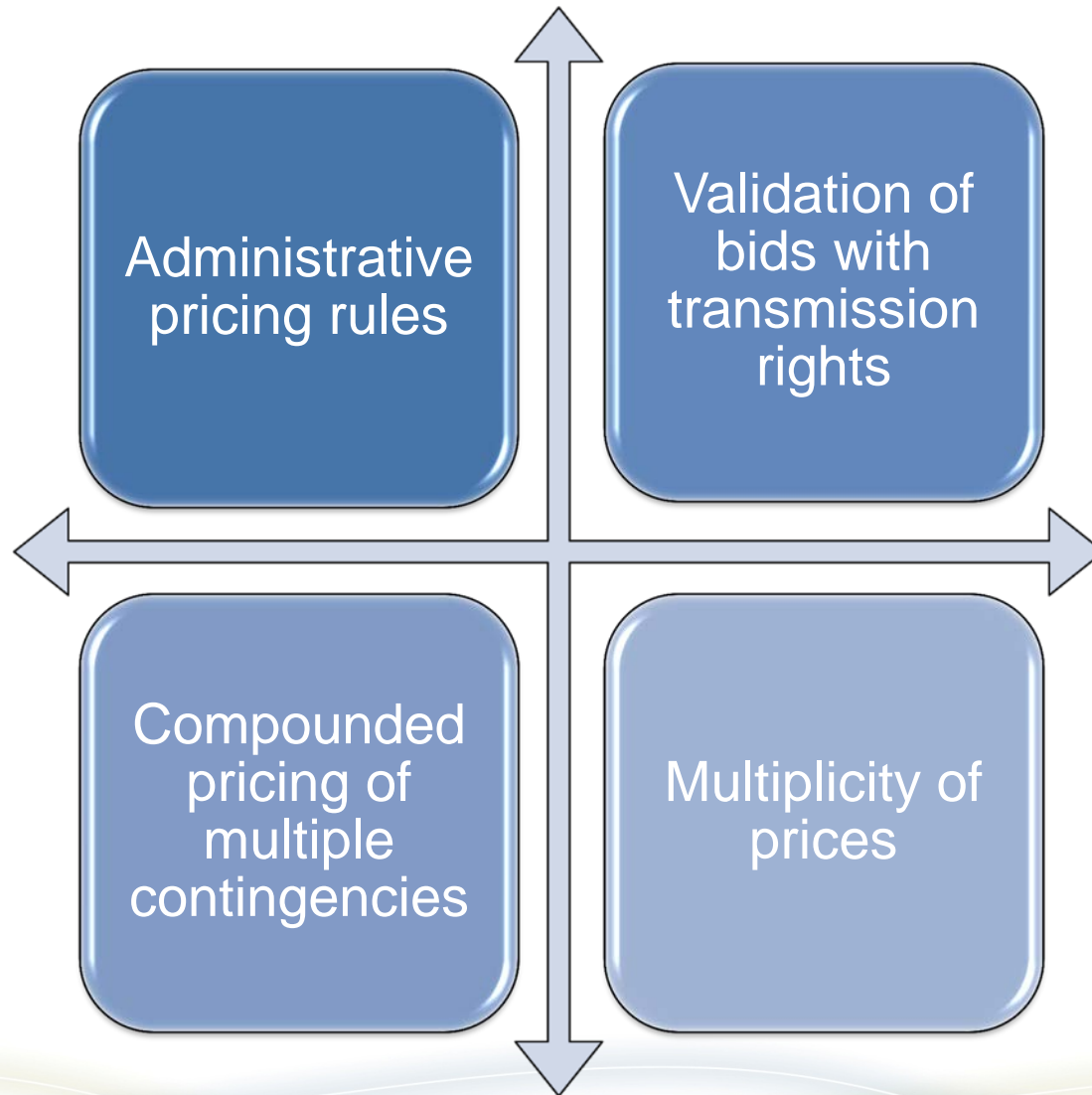
# Decision on pricing enhancements proposal

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Proposal includes four provisions to enhance pricing in the ISO market.



# 1) Administrative pricing rules for times when prices cannot be generated through ISO market

- **Background:**

- FERC directed the ISO to clarify its administrative pricing rules after September 8, 2011 outage event.

- **Proposal:**

- Provides rules with a simple and practical protocol to have certain and knowable prices.
- Minimizes settlements impacts for physical and virtual positions.
- Includes rules for day-ahead market suspensions.
- Clarifies treatment of system emergencies and market suspensions from Force Majeure events.

# Proposal uses a tiered approach for administrative pricing.

For a day-ahead market suspension--use either previous day-ahead or rely fully on the real-time market.

Tier III: For a real-time market suspension--use day-ahead prices.

Tier II: Disruption for an hour or longer--allow for real-time price substitution or use of day-ahead prices.

Tier I: Disruption shorter than an hour--use last available price.

## 2) New validation rules for bids with transmission rights to avoid artificial congestion.

- **Background:**

- Bids associated with contract based transmission rights that fail validation are accepted as normal self schedules, which have a lower priority than the contract based rights.
- Can lead to artificial and high congestion cost in the market.

- **Proposal:**

- Modify validation rules in the bid submission process to reject bids with errors instead of converting to normal self-schedules.

### 3) Eliminate compounded pricing of multiple contingencies.

- **Background:**

- All contingencies enforced are equally considered without regard to relative impact.
- There is no mechanism to identify the “most limiting” contingency.
- When a transmission constraint cannot be resolved due to multiple contingencies, compounding high prices can result based on relaxation parameter prices.

- **Proposal:**

- Modify the contingency modelling in the market optimization to price only the “most limiting” contingency.

## 4) Ensure unique pricing outcomes in instances of multiple possible pricing solutions.

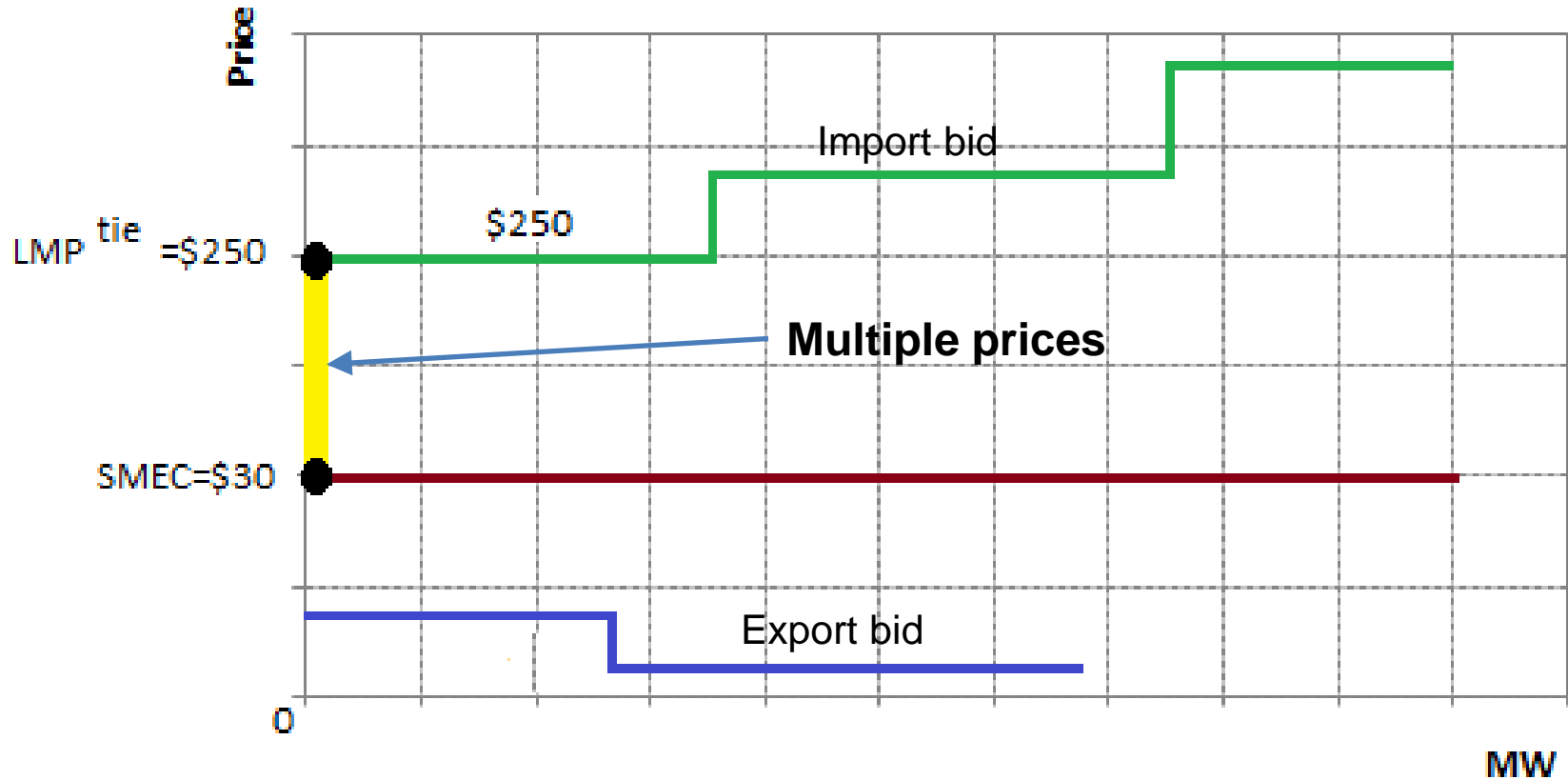
### **Background:**

- Multiplicity of prices may arise when there are multiple optimal pricing solutions to the same problem.
- The resultant dispatch quantity does not change in the range of optimal prices.

### **Proposal:**

- Enhances pricing formulation to ensure unique pricing solution to transmission constraints.
- Eliminates uncertainty of pricing solution.

# Example of multiple prices when intertie limit is zero in one direction.





# Broad stakeholders support for proposal

Administrative pricing rules

- General support for pricing rules.
- One opposing view: seeking financial provisions for force majeure events.

Validation of bids with transmission rights

- General support for proposal.

Compounded pricing of multiple contingencies

- General support for proposal.

Multiplicity of Prices

- General support for proposal.

Management recommends Board approve the proposed pricing enhancements.

- Establishes simple and practical administrative pricing rules that minimize settlement impacts when prices cannot be generated through normal market mechanisms.
- Three other pricing enhancements that will lead to more efficient pricing in the ISO market.