



Decision on local market power mitigation enhancements proposal

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Board of Governors Meeting

General Session

March 27, 2019

Proposal addresses several local market power mitigation issues

- Current default energy bid options do not reflect hydro resource's opportunity costs of limited water availability
- Bid mitigation can result in constrained area changing from importing at submitted bids to exporting at mitigated bids
- Bid mitigation at times applied in intervals where the opportunity to exercise market power does not exist
- Bid mitigation can result in inefficient economic displacement between balancing areas
- Mitigated bids for gas resources at times do not accurately reflect gas costs

Management proposes several enhancements to the ISO's market power mitigation process

- New default energy bid option for hydro resources
- Enhancement to market power mitigation provisions to prevent EIM BAAs to change from importing to exporting at mitigated bid prices
- Modify processes for reference level adjustments
- Update gas price indices used for mitigation
- *Optional feature to limit the EIM from dispatching additional energy from resources in balancing authority areas outside of the ISO in the event of bid mitigation**

**The EIM Governing Body approved this proposal at their March 12, 2019 and does not require Board action*

Proposed hydro default energy bid is based on the maximum of three components to account for different opportunity costs

- **Short-term** – represents short-term limitations based on prices in the resource’s local area ranging from the next day to the next month
- **Long-term/geographic** – represents opportunity costs of future sales and/or bilateral sales at remote hubs for a number of months equal to a resource’s storage horizon
- **Gas floor** – represents a hydro generator replacing peak energy with a gas resource

Current process of extending mitigated bid for remainder of hour can result in exporting energy at mitigated bid price

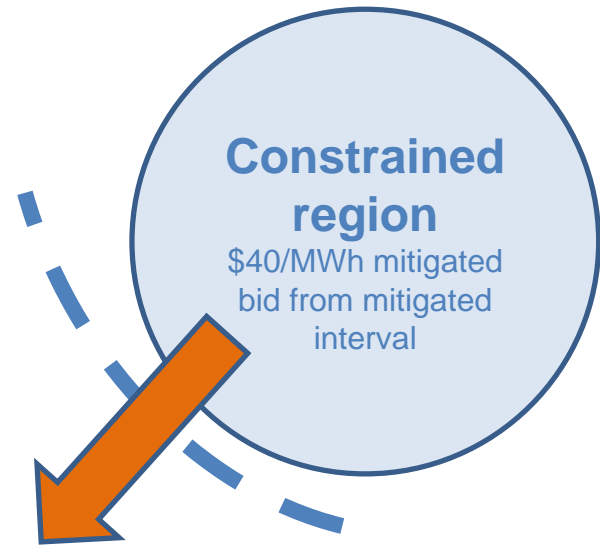
$$\text{Mitigated bid} = \max(\text{DEB}, \text{Comp. LMP})$$

Mitigated Interval



LMP in competitive area = \$40/MWh

Remaining Intervals in Hour



LMP in competitive area = \$50/MWh

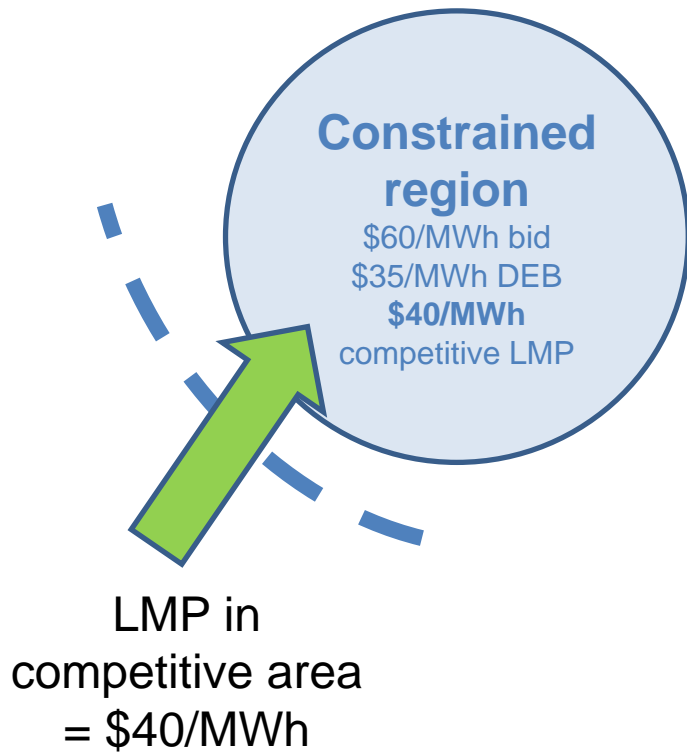
Management proposes enhancements to the local market power mitigation framework

- Eliminate mitigation extension rules
 - Determine competitive LMP for each market run
 - No longer carry over mitigation for balance of the hour if mitigation occurs in one interval
- Nominal adder to competitive location marginal price to create price separation
 - Plan to use \$0.001 in business practice manual (maximum allowed under tariff \$0.01)

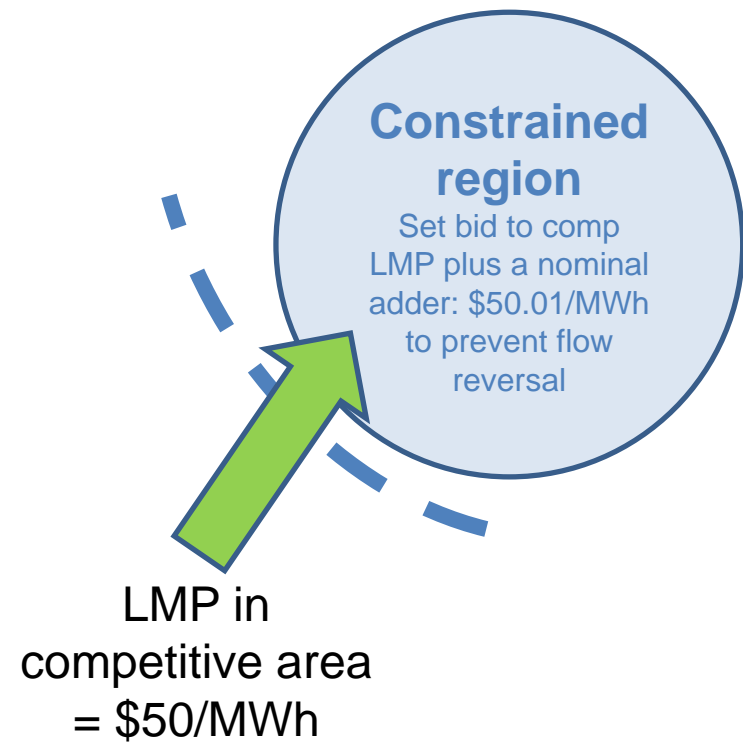
Proposed enhancements prevent exporting from constrained region at mitigated bid price

$$\text{Mitigated bid} = \max(\text{DEB}, \text{Comp. LMP})$$

Mitigated Interval



Remaining Intervals in Hour



Propose further enhancements to board approved policy to update gas prices used for mitigation

- Morning update of gas prices used to determine real-time market default energy bids and commitment cost bid caps
 - Suppliers may request ISO individually review their gas costs
- Use Monday-only gas index
- Hydro default energy bid gas component updated automatically with associated gas fuel region

Stakeholders support hydro resource default energy bid, DMM and MSC raised some concerns

- DMM concerned with maximum 12 months storage horizon
 - potentially overstate opportunity costs beyond the normal hydro cycle
- DMM believes inclusion of remote hubs inappropriately includes transmission value in default energy bid
- MSC recommends stronger requirements for use of remote hubs
- Some stakeholders believe new default energy bid should be offered to all resources

Stakeholders support remaining components of proposal

- Stakeholders strongly support proposal to eliminate balance of hour mitigation and recalculate mitigated bid price based on current competitive LMP
- Stakeholders strongly support proposal to update reference level adjustments process and gas price indices

Management recommends the Board approve the local market power mitigation enhancements proposal

- Dispatching hydro resources based on their actual costs will help to ensure these valuable flexible resources are available to the ISO and EIM
- Market power mitigation enhancements will result in more accurate mitigation and pricing
- The ISO commits to monitor the effectiveness of the proposal to ensure it meets the objectives of attracting more resources while providing effective market power mitigation