

# WESTERN ENERGY IMBALANCE MARKET

## Decisions on local market power mitigation enhancements proposal

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EIM Governing Body Meeting

General Session

March 12, 2019



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

## Provisions within the EIM Governing Body advisory role:

- 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

## Provision under EIM Governing Body primary role:

- 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

*Proposed EIM governance changes would have resulted in EIM Governing Body also having primary approval authority over proposed DEB and enhancements to market power mitigation provisions*

## Current market power mitigation process can result in dispatching resources at prices below their costs

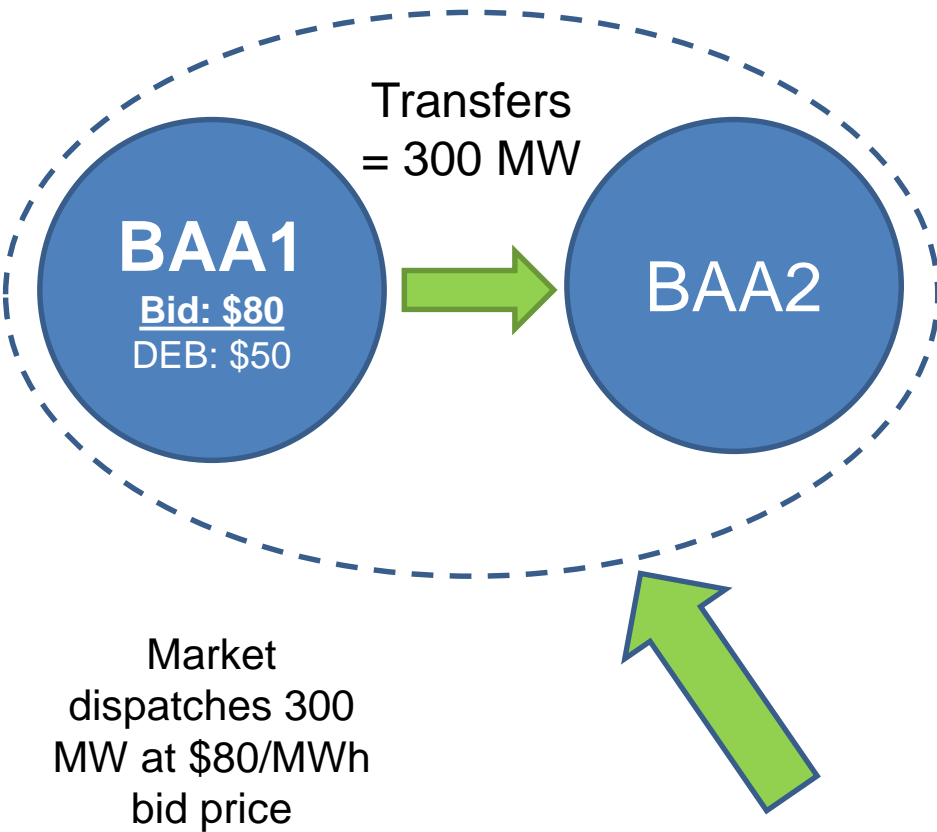
- Current default energy bid options do not reflect hydro resource's opportunity costs of limited water availability
  - Resources must carefully consider opportunity costs for bilateral sales versus participating in EIM
    - High degree of subjectivity in calculating water availability
  - Negotiated process often falls short of fully accounting for all of their opportunity costs
- Resources' bids may be mitigated in intervals where the opportunity to exercise market power does not exist
  - Suppliers dispatched at mitigated prices during competitive periods

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

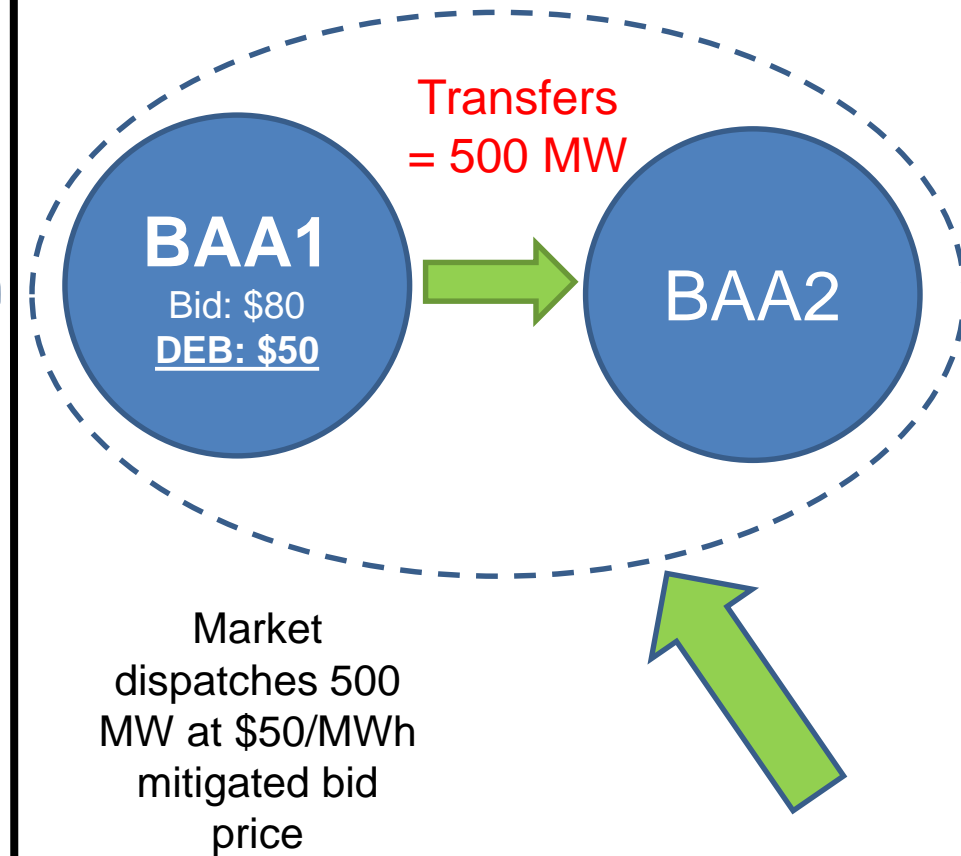
- **Short-term** – represents short-term limitations based on prices in the resource’s local area ranging from the next day to the next month
- **Long-term/geographic** – represents opportunity costs of future sales and/or bilateral sales at remote hubs for a number of months equal to a resource’s storage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

Under current mitigation process, additional transfers can occur as a result of mitigated bids

### Pre-Mitigation Run

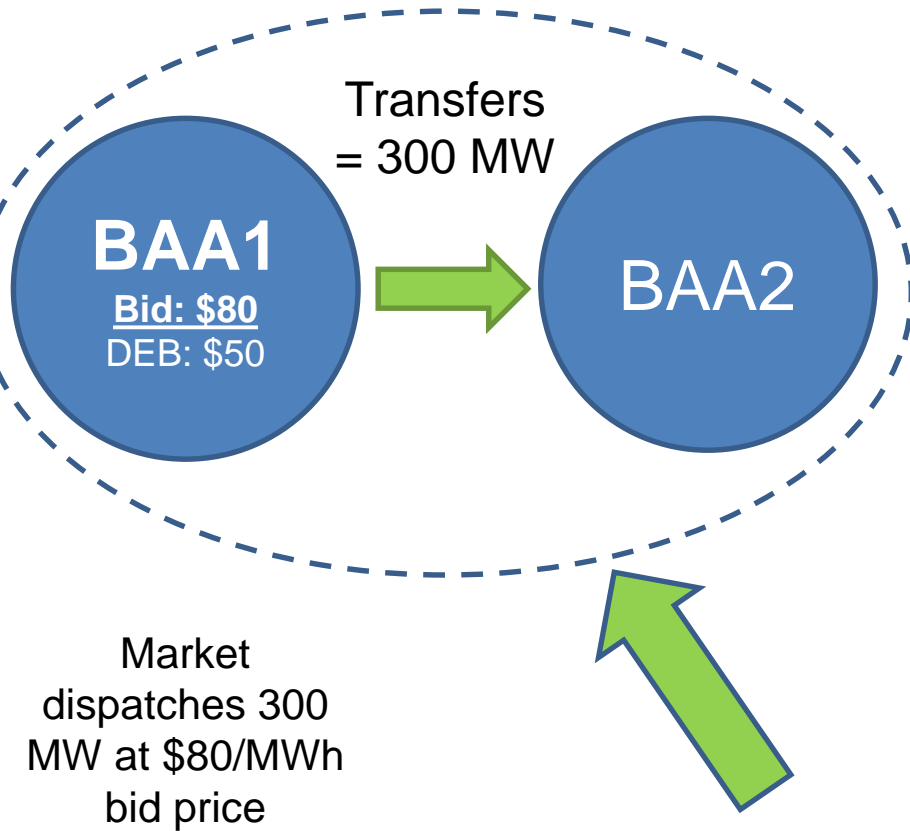


### Post-Mitigation Run

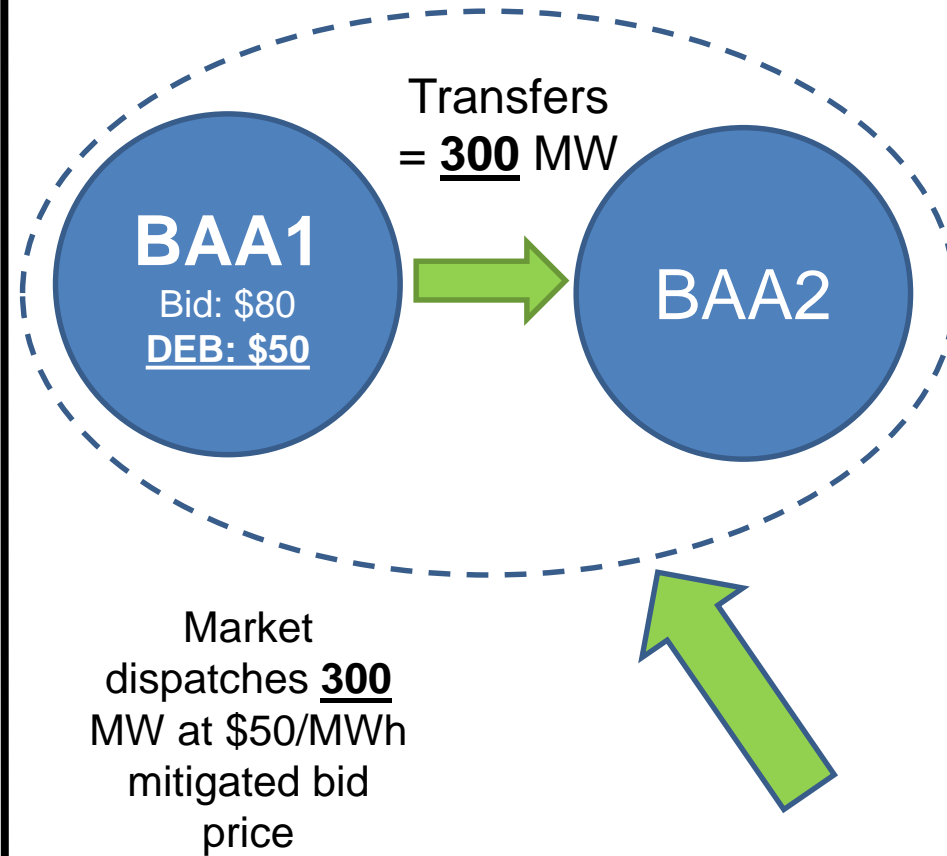


# Proposed enhancements prevent additional transfers resulting from mitigated bids

## Pre-Mitigation Run



## Proposed Post-Mitigation Run



# Management proposes three modifications to the local market power mitigation framework

1. Eliminate mitigation extension rules (advisory)
  - Determine competitive LMP for each market run
  - No longer carry over mitigation for balance of the hour if mitigation occurs in one interval
2. Nominal adder to competitive location marginal price to create price separation (advisory)
  - Plan to use \$0.001 in business practice manual (maximum allowed under tariff \$0.10)
3. Optional rule to prevent additional transfers within a constrained region as a result of mitigated bids (primary)
  - Limit transfers to optimal quantity using submitted bids plus shared flexible ramping award

## 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 for day-ahead market
- Hydro default energy bid gas component updated automatically with associated gas fuel region



# Stakeholders support hydro resource default energy bid

- DMM concerned with maximum 12 months storage horizon – could systematically overstate opportunity costs beyond the normal hydro cycle
  - Proposal balances implementation complexity and difficulties in precisely modeling every hydro resource's operation
- DMM and MSC believe inclusion of remote hubs inappropriately includes transmission value in default energy bid
  - Proposed approach acknowledges difficulties in separating transmission and energy in the western bilateral market
- Some stakeholders believe new default energy bid should be offered to all resources
  - Specifically designed for hydro resources, not appropriate for gas resources since such resources do not have the same energy limitations as hydro 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
- Many stakeholders support the proposal to limit transfers to address economic displacement
  - Some stakeholders are concerned proposal would limit transfers, reducing EIM benefits
- Stakeholders strongly support proposal to update reference level adjustments process and gas price indices

Management recommends the EIM Governing Body approve the optional feature to limit transfers due to mitigation and support the remaining components of the proposal

- Dispatching hydro resources based on their actual costs will help to ensure these valuable flexible resources are available to the ISO and EIM
  - Help manage the variability of other renewable resources
- 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