CAISO Update on EIM GHG Design Changes

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GHG bidding design has evolved since EIM go-live, but market optimization algorithm has not changed to date.

<table>
<thead>
<tr>
<th></th>
<th>GHG Bid Quantity</th>
<th>GHG Bid Price</th>
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<tbody>
<tr>
<td><strong>At outset of EIM</strong></td>
<td>Pmax of resource</td>
<td>≤ $1,000 less Energy bid</td>
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<tr>
<td><strong>Year One Enhancement</strong></td>
<td>0 MW to Pmax</td>
<td>≤ Resource daily GHG cost plus 10%</td>
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<tr>
<td><strong>Proposed Change</strong></td>
<td>0 MW to (Upper economic limit less base schedule)</td>
<td>≤ Resource daily GHG cost plus 10%</td>
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- Proposed change reduces potential magnitude of residual emissions due to secondary dispatch.
Proposed change reduces magnitude of secondary dispatch by reducing potential attribution quantity.

**Current**
- Potential Secondary Dispatch
- GHG Attribution
- Energy Dispatch
- Eligible for GHG Attribution
- Base Schedule
  - Upward Bids
- Generator A
  - Hydro

**Proposed Change**
- GHG Attributed
- Energy Dispatch
- Eligible GHG
- Base Schedule
  - Upward Bids
- Generator A
  - Hydro
Secondary dispatch residual emissions depend upon what type of resource backfills.

- **No change in emissions**
  - Secondary Dispatch
  - Generator A
    - Hydro
  - Incremental Energy Dispatch
  - Generator B
    - Hydro

- **Higher emissions**
  - Secondary Dispatch
  - Generator A
    - Hydro
  - Incremental Energy Dispatch
  - Generator C
    - Gas
Next Steps

- July 12, 2018  EIM Governing Body Decision
- July 26, 2018  ISO Board of Governors Consent Agenda
- August 2018    FERC Filing
- November 1, 2018  Implementation