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# Powerex EIM Charge Code Proposal

## BPA EIM Phase III Customer Workshop

Supply. Flexibility. Commitment.

# Multiple Categories of EIM Activities and Settlements

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- ✓ Buying and/or selling energy on a sub-hourly basis through EIM
  - Expanded opportunities to trade through a centralized market
  - Transactions settled at EIM LMPs
- ✓ More efficient approach to balance load and generation within the hour
  - BPA can leverage EIM to provide generation and load imbalance (i.e., Schedule 4 & 9)
  - Charges for these services determined using EIM LMPs

- ✓ Re-dispatch of resources to manage congestion between locations
  - The EIM can allow BPA to find the least-cost manner of providing this service

But the typical approach used by EIM Entities to recover congestion costs is **highly problematic**

# Key Problems With BPA's Proposed Approach for EIM Congestion

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- Results in a **new transmission charge** after T-57 for Firm customers simply using the rights they already paid for
- Results in significant **over-collection** of congestion at a BAA level
  - Charges applied to **all** schedule changes after T-57, not just the amount of redispatch required
  - Majority of charges applied after T-57 are simply returned to the BAA through **offsetting credits** in other charge codes
- Charges are applied to the **wrong customers**
  - Applied to all firm and non-firm schedules based solely on T-57, superseding OATT priority
  - Applied to specific customers for simply using firm rights, rather than to network segment as a group

# Proposed Approach Results in Significant Harm

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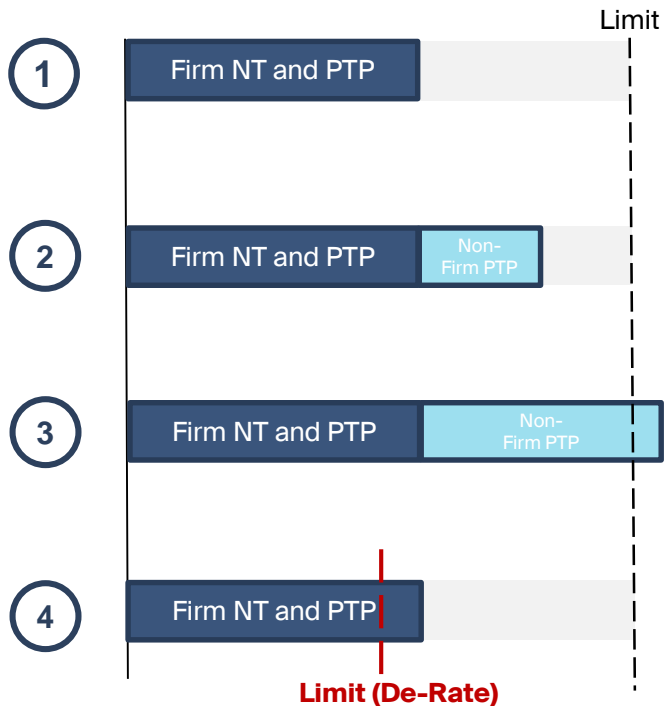
- **Non-Firm** transmission scheduled *before T-57* gains significantly **increased value**
  - EIM will redispatch to resolve congestion and avoid curtailment of NF schedules
  - And NF customers will not pay the cost
- ... and causes **direct harm** to **Firm** customers scheduling *after T-57*
  - Impacts a broad array of customers and real-time uses of Firm transmission
- All economic benefits of participating in CAISO 15-minute and 5-minute markets are **eliminated**
  - Key benefit on SI is to move power between NW and California to earn (congestion) price differential
  - EIM congestion charges would completely **nullify** the value of this activity
- ***These significant harms are completely unnecessary and can be avoided***
  - A workable solution will **not** add incremental costs or risks to BPA or its Firm NT customers

# Addressing the Challenges

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- BPA is **uniquely situated**
  - Powerex estimates that BPA's third party PTP sales are more than **10 times greater** by volume than the next largest EIM Entity and **more than triple** every other EIM Entity combined
  - BPA transmission supports broad and extensive use inside EIM operating timelines
- A successful solution must respect and uphold the valuable benefits customers derive from investing in long-term firm rights
  - How does OATT priority and cost recover work today?
  - How can EIM be implemented in manner that is consistent with OATT principles?

# How Does OATT Priority Work Today?



**No congestion:** schedules below limit

**No congestion:** total schedules below limit

**Congestion:** total schedules exceed limit

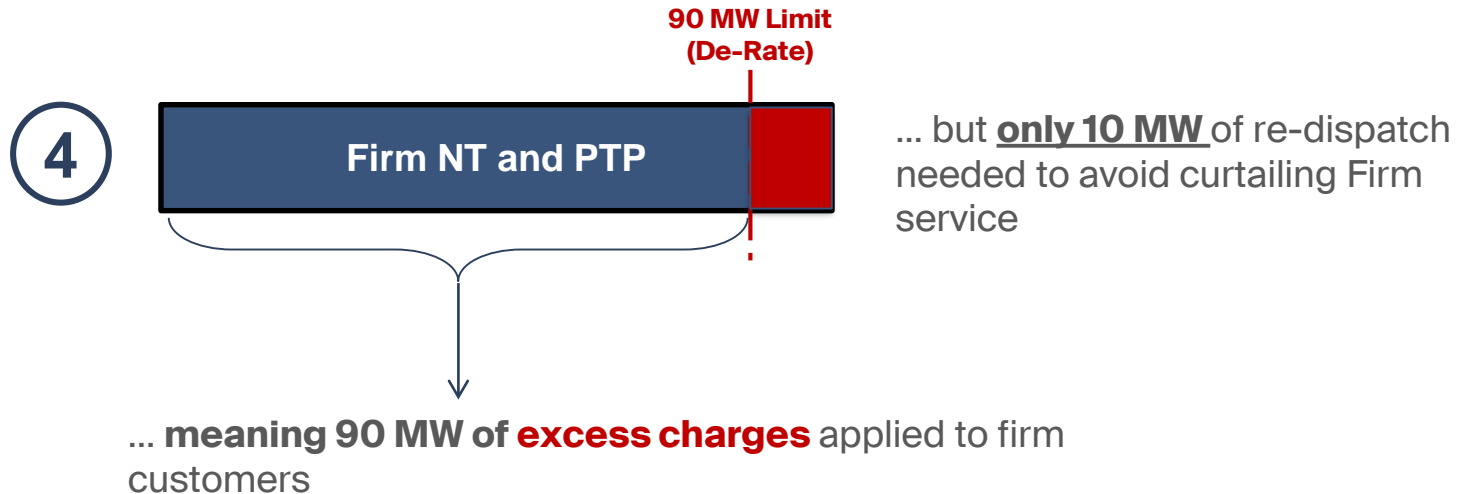
- Firm schedules are below limit; **Firm not curtailed**
- NF schedules are curtailed to eliminate congestion

**Congestion:** total schedules exceed (de-rated) limit

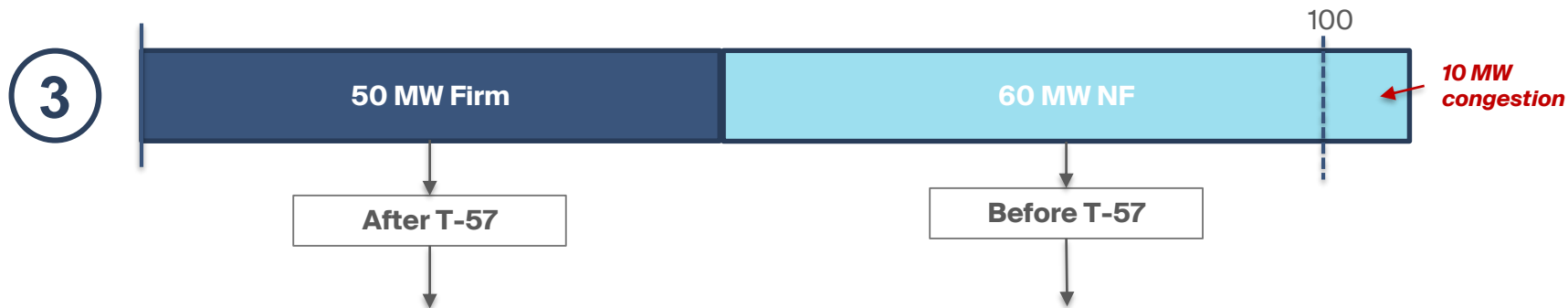
- Firm NT and PTP can be curtailed pro rata; or
- Bonneville re-dispatches to avoid curtailing NT, with re-dispatch costs recovered through rates

# Problem with Proposed Approach: **Wrong charges applied....**

100 MW of Firm schedules submitted after T-57  
incur “imbalance charges” ...



## Problem with Proposed Approach: ...to the wrong customers



- Firm customer **pays** congestion (despite ability to fully accommodate firm request without any redispatch)
- Firm **over-charged** congestion on **entire 50 MW**, despite actual redispatch of **only 10 MW**
- NF **avoids** curtailment
- NF **avoids** congestion charges

**“T-57 decides, not OATT priority”**



# Principles of A Workable Approach

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1. Firm customers should not face congestion charges for simply using their rights
  - Firm customers have already paid for this priority access under the OATT
  - Firm rights represent the capability to accept schedules without experiencing congestion
  - Redispatch is rarely needed to fully accommodate Firm schedules
  - *Simply using Firm rights must not be **mischaracterized as causing congestion***
2. Non-firm customers that cause congestion are either curtailed (like today), or charged the cost of EIM redispatch that allows them to avoid being curtailed
3. Any remaining redispatch that is required to avoid curtailing Firm (e.g., due to a transmission de-rate) is allocated to network segment customers (as a group)
  - Generally infrequent
  - Total cost should be **lower than today**, all else equal, due to efficiency of EIM in providing service

# Core Elements of a Workable Approach

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1. Run an initial OATT-based curtailment **prior to** T-40 to ensure base schedules are feasible
  - Infeasible base schedules will lead to stranded redispatch costs paid by BPA
  - A NF customer could even be **paid** to “resolve” congestion when an infeasible base schedule is later curtailed
  
2. Apply EIM imbalance charges (as proposed), but:
  - a) **Reverse** congestion charges paid by Firm NT and PTP schedules submitted **after T-57**
    - Avoids applying new charges to firm customers for simply using their rights
  
  - b) **Apply** congestion charges to NF schedules submitted **prior to T-57**
    - Allocates any cost of congestion caused by non-firm schedules
    - When the NF schedule was submitted is not relevant

# Summary of Outcomes

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Today	Powerex Proposal	Proposed EIM Approach
<p>Firm <b>fully accommodated</b> with no congestion charged</p>	<p>Firm <b>fully accommodated</b> with no congestion charged</p>	<p>Firm <b>pays</b> congestion after T-57</p>
<p>NF schedules are <b>curtailed</b> to eliminate congestion</p>	<p>NF schedules are <b>curtailed</b> to eliminate congestion  <i>or</i>                      NF charged EIM congestion if avoiding curtailment (regardless of <i>when</i> schedule is submitted)</p>	<p>NF <b>avoids</b> curtailment</p> <p>NF <b>avoids</b> congestion before T-57</p> <p><b><i>“T-57 decides, not OATT priority”</i></b></p>

# Summary of Outcomes

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Firm NT and PTP

Today	Powerex Proposal	Proposed EIM Approach
NT Redispatch to avoid curtailing NT customers	<b>EIM</b> Redispatch to avoid curtailing <u>all</u> firm customers	<b>EIM</b> Redispatch to avoid curtailing <u>all</u> firm customers
Costs recovered from network segment <b>as a group</b>	Costs recovered from network segment <b>as a group</b> (with appropriate share paid by firm PTP)	Specific Firm customer <b>pays</b> after T-57 Congestion <b>significantly over-charged</b> and credited back to different customers

Powerex Proposal:

- Allows BPA to leverage EIM for congestion management services
- Ensures BPA recovers its costs fully and accurately
- Allocates costs in a manner that upholds OATT principles and OATT priority (at all times)
- Avoids completely different settlement outcomes before and after T-57

# Southern Intertie Solution

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- Powerex supports leveraging EIM for improved congestion management on primary network
- For Southern Intertie, BPA should continue to rely on schedule curtailments according to OATT priority
  - Southern Intertie used solely to schedule transactions between Bonneville and other transmission systems
  - No firm NT load that need be protected through NT redispatch
  - EIM redispatch **does not appear to offer significant benefits** relative today
- Adopting EIM redispatch on Southern Intertie carries **considerable risk**
  - Long-running seams issues with CAISO BAA
  - EIM redispatch could lead to unintended consequences
- BPA should clarify that EIM congestion charges **will not apply** to the Southern Intertie segment
  - No new congestion management services provided and no cost recovery required

# Allocating Congestion Rent to Customer that Donates to EIM

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- BPA must ensure congestion rents received from CAISO for EIM Transfers are properly distributed to the transmission customers that made Firm PTP rights available to the EIM
- Necessary to **encourage** donation of transmission
  - Firm rights allow customers to purchase lower cost energy and sell it at a higher priced location
  - Donating transmission causes customer to **forgo** this opportunity and instead make it available **for broad market use**
  - Little incentive to donate without recovering an allocation of associated congestion rents
- Most important for Southern Intertie
  - Key benefit on these paths is to move power between NW and California to earn (congestion) price differential

# CAISO Perspective: EIM Entities Can Address Settlements Issues

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- CAISO has also identified issues with the settlement approaches adopted by EIM Entities
  - “If schedule changes between T-57 and T-20 are now exposed to imbalance energy settlement the **value proposition for procuring the transmission is reduced.**”
  - “Re-dispatch costs will be incurred only if the base schedules of other resources are **approved by the EIM entity that utilize the transmission reservation of the firm transmission holder.**”
  - “[t]he real-time congestion offset includes congestion revenues that result from imbalance settlement . . . which **can exceed the re-dispatch costs.**”
- CAISO has identified potential solutions that are generally consistent with Powerex’s proposal
  - “The **EIM entity** can address the impact of bilateral scheduling after T-57 . . . by adjusting base schedules so that transmission sold to firm transmission holders is not used.”
    - e.g., ensuring base schedules are feasible, employing “donation” approach for EIM transfers
  - “[t]he **EIM entity** could chose to exempt certain wheel transactions from imbalance settlement . . . for schedule changes made after T-57 EIM entity base schedule submission deadline”
    - And thus would “not result in an over-collection of congestion revenue”

# Summary

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- Powerex supports Bonneville's participation in the EIM
- A “direct allocation” approach has the *potential* to be workable and equitable
- But critically necessary to ensure the approach is accurate
  - EIM should **not** alter the core principles under Bonneville's OATT for providing transmission access or for recovering costs, including congestion re-dispatch costs
- Opportunity for BPA to demonstrate that it is possible to successfully allocate costs in a manner that upholds OATT principles and OATT priority





# Thank You

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