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EIM Charge Code Allocation

BPA Customer-Led Workshop

Supply. Flexibility. Commitment.

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EIM Charges Include Offsetting Charges and Credits

- Congestion pricing generally results in the market operator collecting surplus revenue (congestion rents)
 - Generators generally receive a **lower** price
 - Load generally pays a **higher** price
- Congestion rents collected by market operator often exceed actual congestion costs
 - Prices reflect **marginal** cost of congestion
 - Congestion price is applied to **all** imbalances (not just limited to quantity of congestion itself)
 - Similar over-collection occurs with marginal transmission losses
- Who receives the surplus congestion rents collected by the market operator?
 - In a full DA organized market, revenue returned to CRR holders
 - In EIM, CAISO uses “neutrality” charge codes to return congestion and losses to each EIM Entity

EIM Charges Include Offsetting Charges and Credits



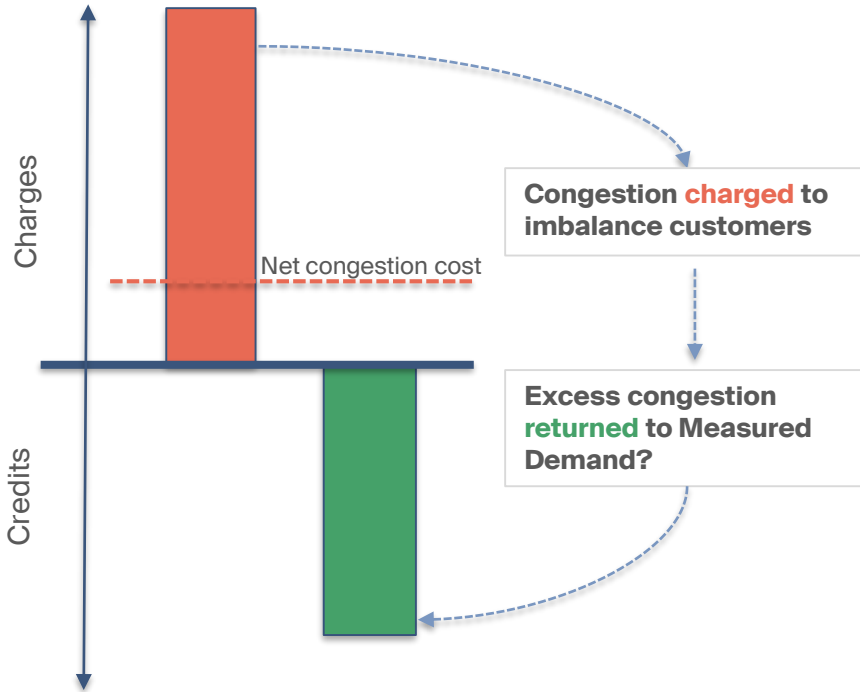
Offsetting charges and credits of \$495 far greater than \$5 of net congestion costs

EIM Optimization Can Result in New Congestion



- Assume a flowgate with 150 MW ATC
- OATT customer schedules 100 MW (after T-57)
 - No congestion or redispatch required
- EIM optimization finds opportunity for incremental EIM transfer, utilizing remaining 50 MW ATC
- But now that the flowgate is fully utilized, EIM prices reflect “congestion”
- Congestion pricing is not only applied to the EIM transaction itself
- Congestion is also charged to the OATT customer for simply using rights after T-57 (without causing any congestion at all)

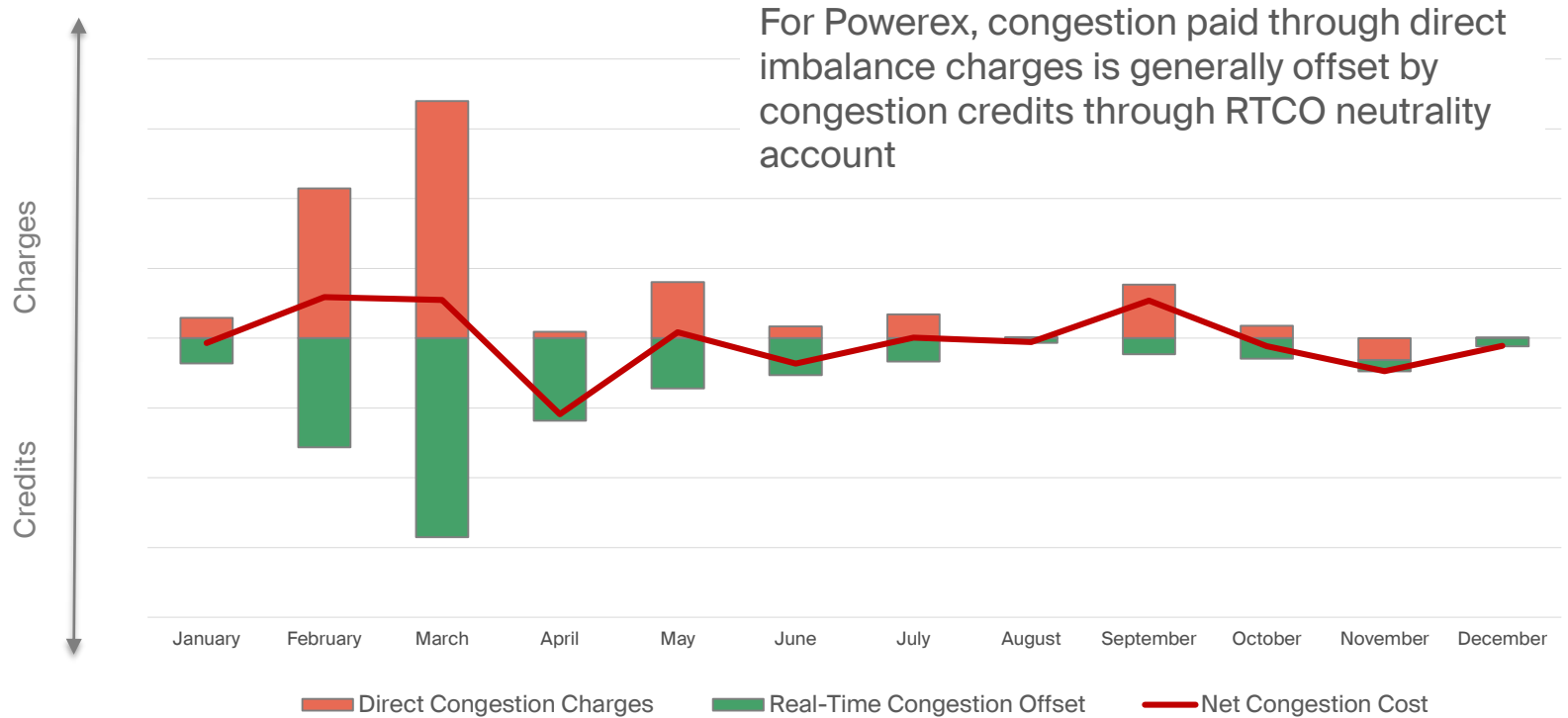
Risks of Mismatching Allocation of Charges and Credits



- Allocating some charge codes and not others will be inaccurate
- Allocating related charges/credits to **different** customers will be inaccurate
- Could result in a very significant transfer of dollars **between Bonneville customers**
 - The magnitude of unintended consequences can greatly exceed any actual EIM “costs”

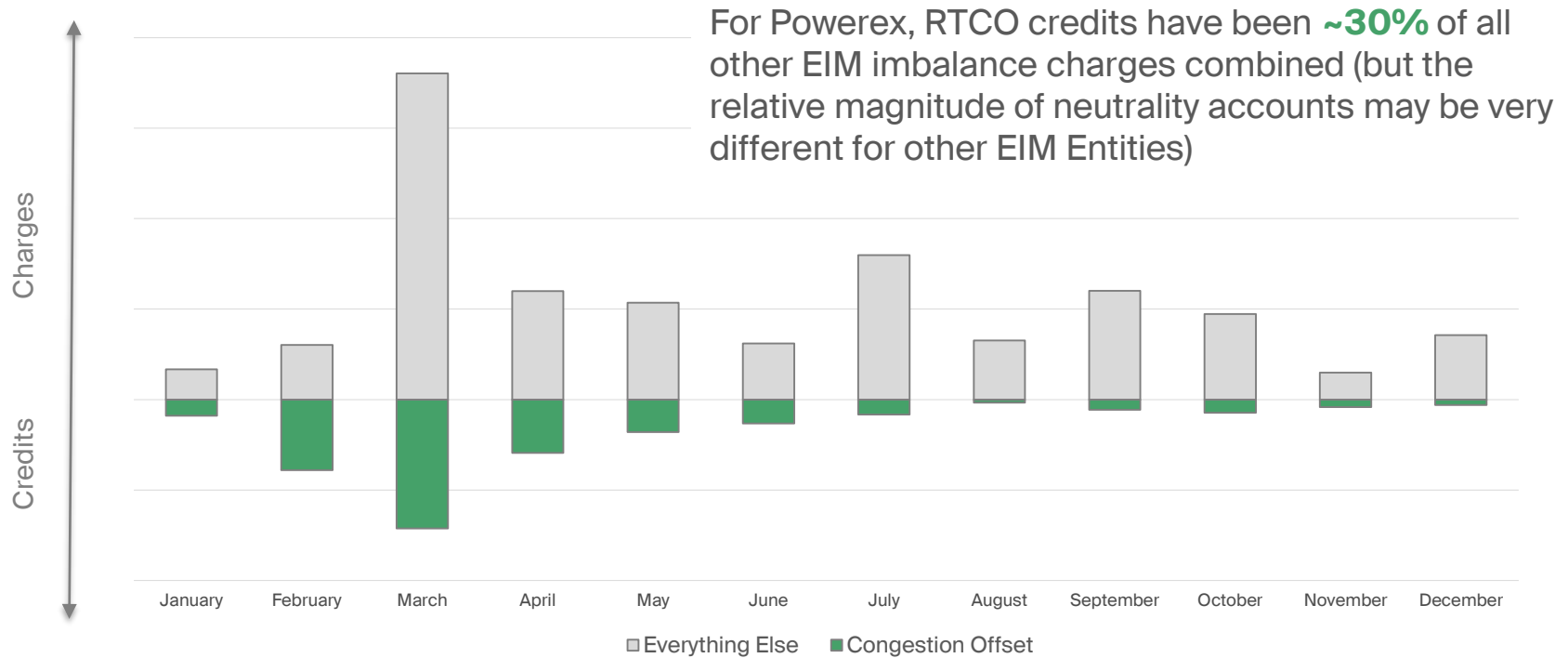
Powerex Example

Offsetting Congestion Charges and Credits

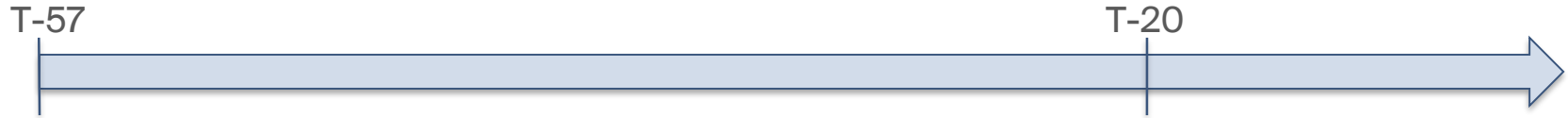


Powerex Example

Magnitude of Neutrality Accounts



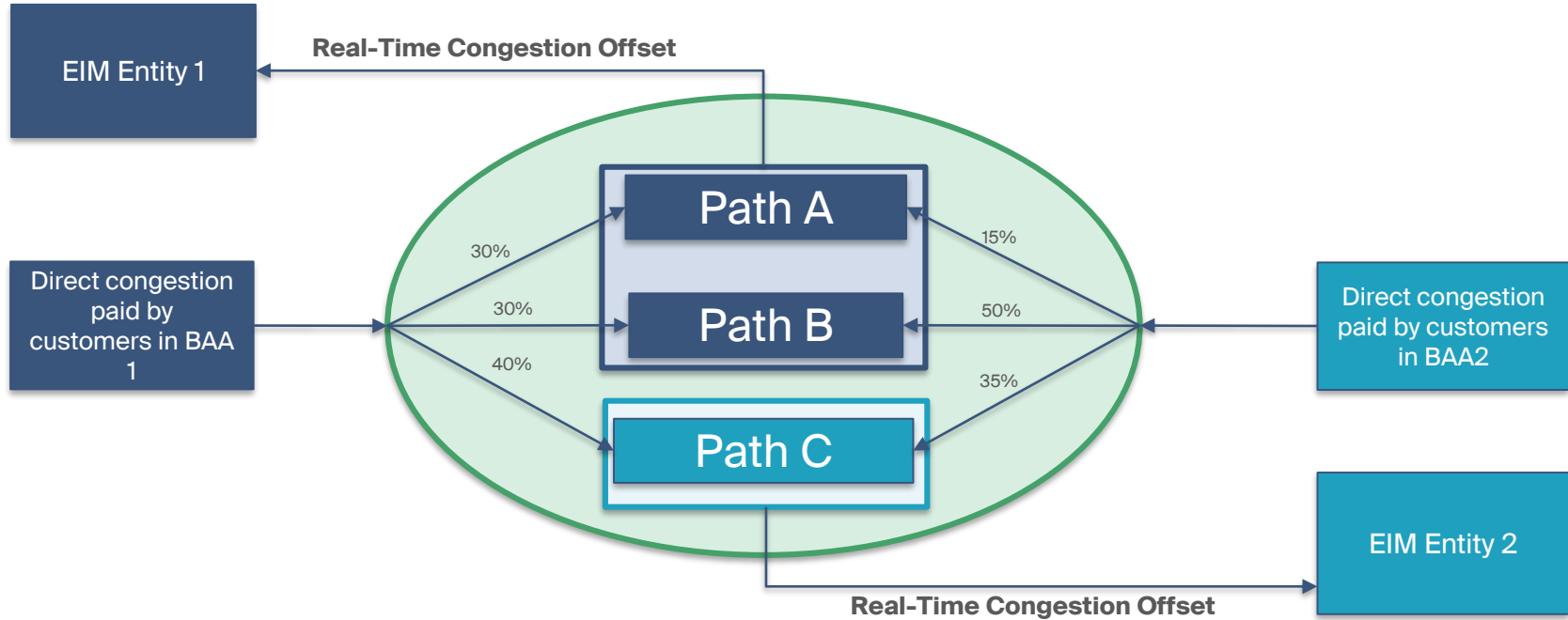
BPA is Uniquely Situated



- Many uses of transmission system inside EIM operating timeline can attract EIM charges
 - Hourly and sub-hourly bilateral transactions
 - Participation in CAISO's hourly HASP market
 - 15-minute scheduling in CAISO FMM
 - Scheduling variable resources
 - Dynamic scheduling
 - Enabling EIM Transfers between other EIM BAAs
- All else equal, more activity after T-57 will result in more offsetting charges and credits and greater risk of unintended consequences
- Will these new EIM charges materially increase the financial risk and/or the cost of Bonneville transmission service?

Charge Codes are Complex

Is It Feasible To Accurately Allocate Neutrality Accounts?



Summary of Powerex Perspective

- **EIM charge codes are largely offsetting at the BAA level**
 - Individual market charges and credits are highly likely to exceed net costs to BPA
- **BPA is uniquely situated with extensive use of the federal transmission system**
 - EIM charges would potentially apply to many schedules, increasing risk of unintended consequences
 - Large, volatile and unpredictable charges can make transmission service less attractive
- **Accurate direct allocation will be challenging**
 - Neutrality accounts are major components of settlements but lack transparency
- **Direct allocation is not necessary from day one**
 - Deferring sub-allocation can protect customers from unintended consequences while experience is gained
 - If pursuing direct allocation, a clear roadmap should be determined before moving forward



Thank You

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