### WESTERN ENERGY IMBALANCE MARKET

#### EIM benefits and implementations update

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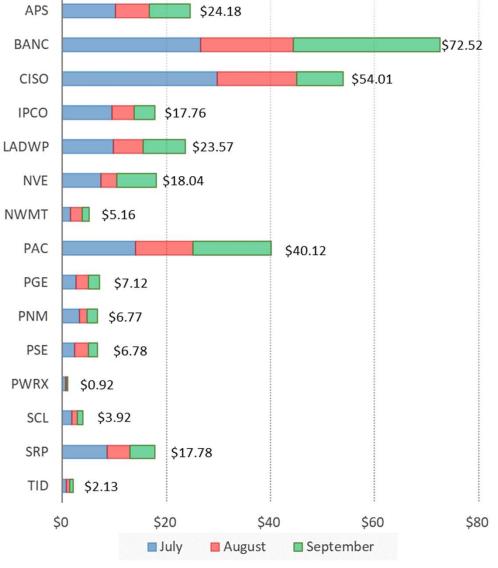
## \$301.18 million gross economic benefits in Q3 2021

Record level of gross economic benefits driven by:

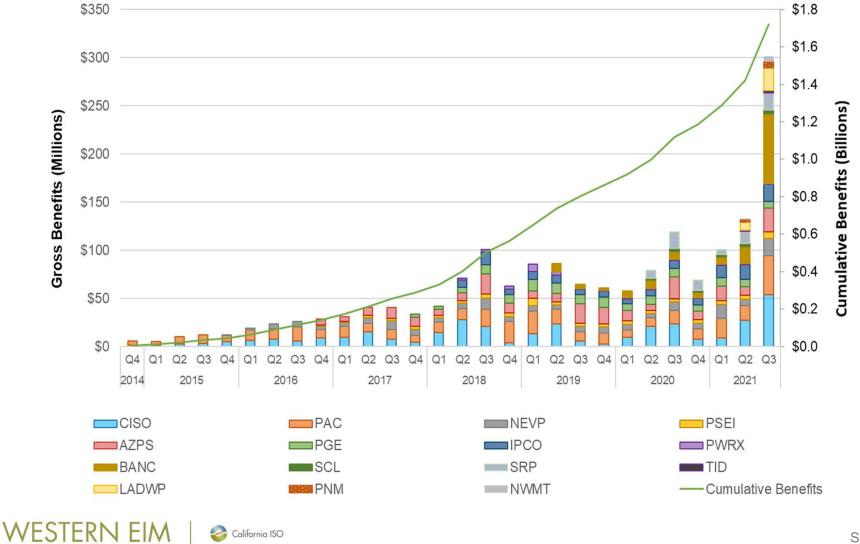
- Participation of five additional EIM entities
- Economic transfers among areas
- Displacement of highly-valued supply

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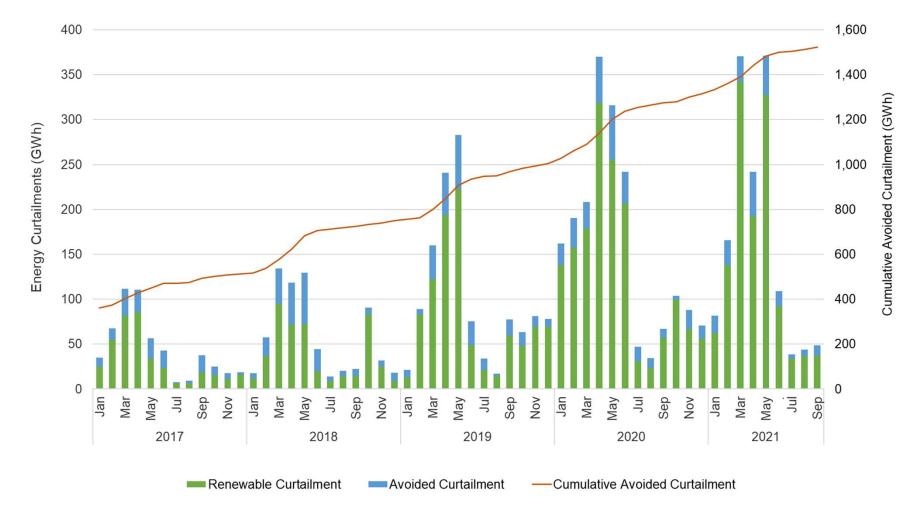
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# Cumulative benefits through Q3 2021 reached \$1.72 Billion



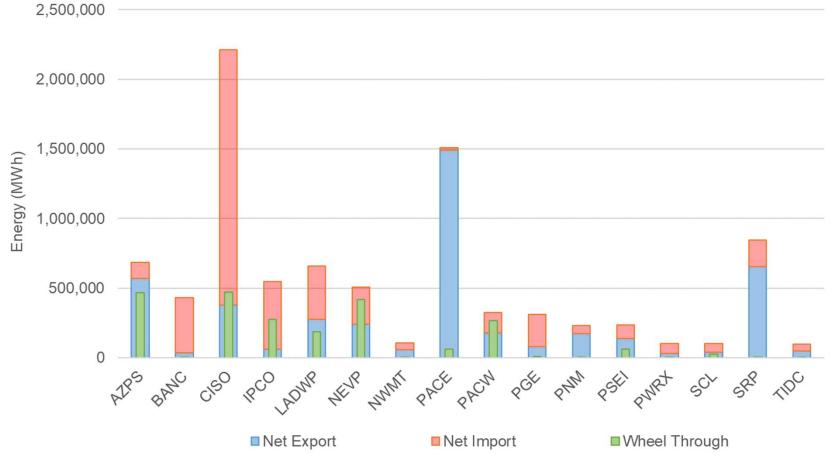
#### Energy imbalance market helps reduce curtailments



Avoided curtailments since 2015 represent a reduction of 655 equivalent Tons CO<sub>2</sub>



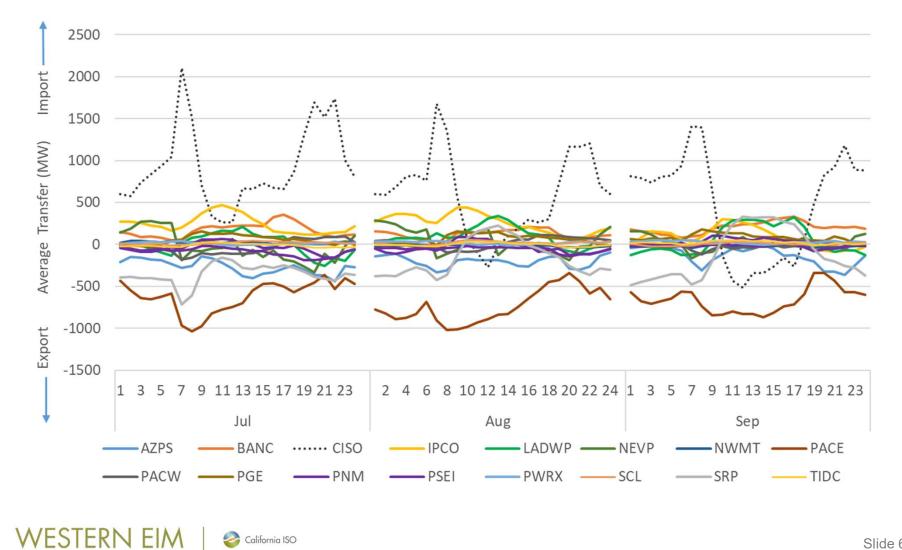
## Volumes of wheel-through EIM transfers in Q3 2021 were generally lower than EIM imports/export volumes



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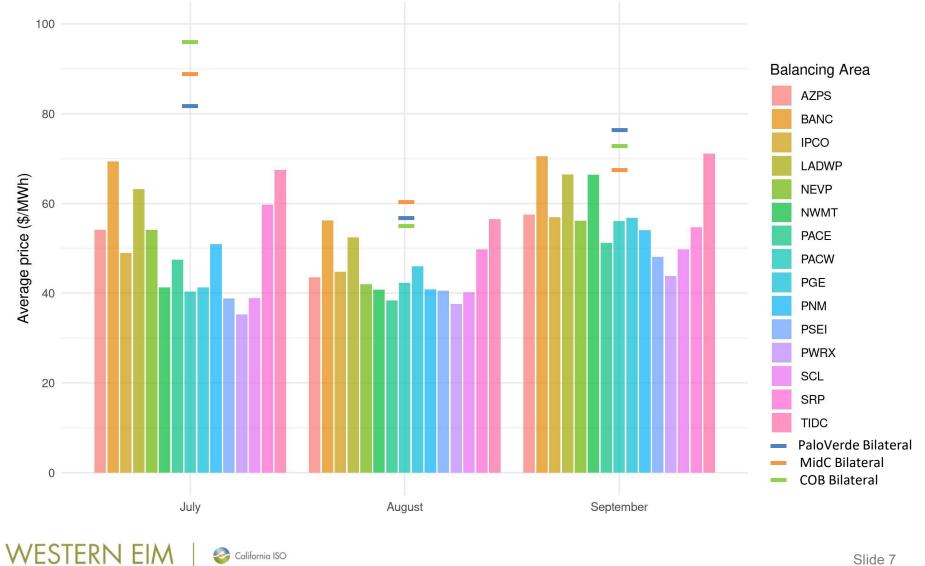
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## Robust energy transfers in Q3 2021 with changing patterns in September

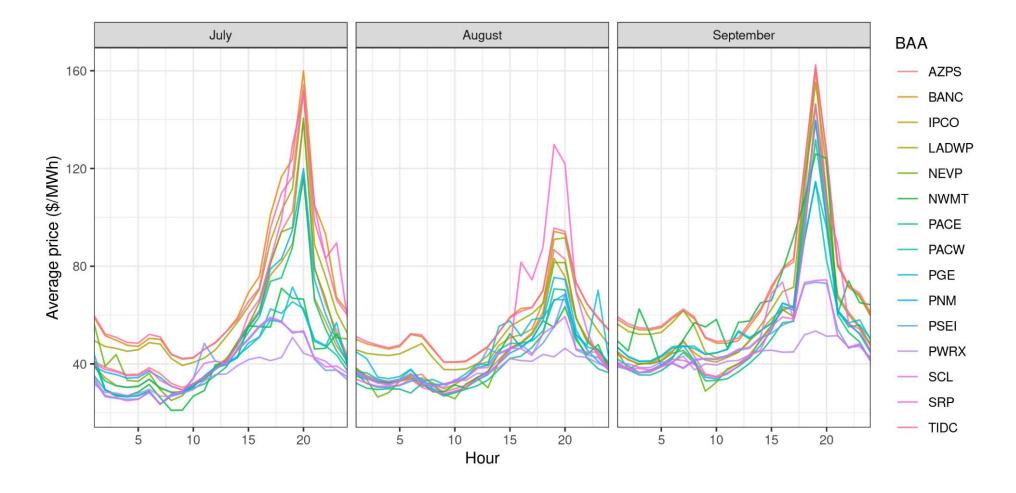


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### Summer months saw higher average prices given tight supply conditions across the West



# Hourly average prices trend reflects summer conditions with high prices during peak hours



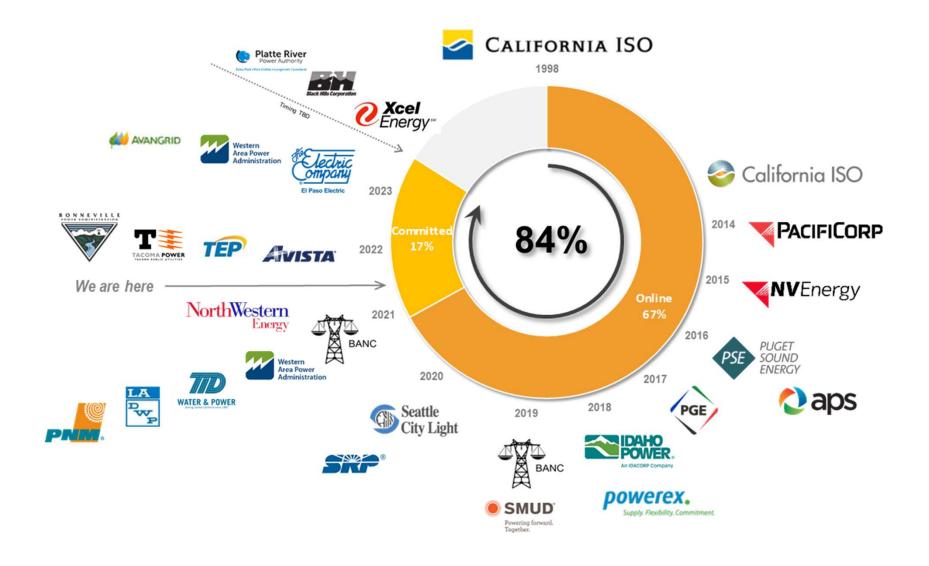
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#### **EIM Implementation Status**

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## EIM On-boarding update

- 2022 EIMs On-boarding status
  - Parallel operation started on 12/1/2021, targeting production on 3/2/2022
    - $\circ$  Avista Utilities
    - Bonneville Power Administration
    - Tacoma Power
  - Market sim started, targeting parallel operation on 2/1/2022, production on 4/1/2022
    - Tucson Electric Power
- 2023 EIMs On-boarding status production 4/5/2023
  - SC applications, initial data submissions, physical meter assessment forms, train-the-trainer workshop registration
    - Avangrid
    - El Paso Electric
    - Western Area Power Administration Desert South West

