



California ISO

# Update on western energy imbalance market and benefits

Mark Rothleder

Vice President, Market Policy & Performance

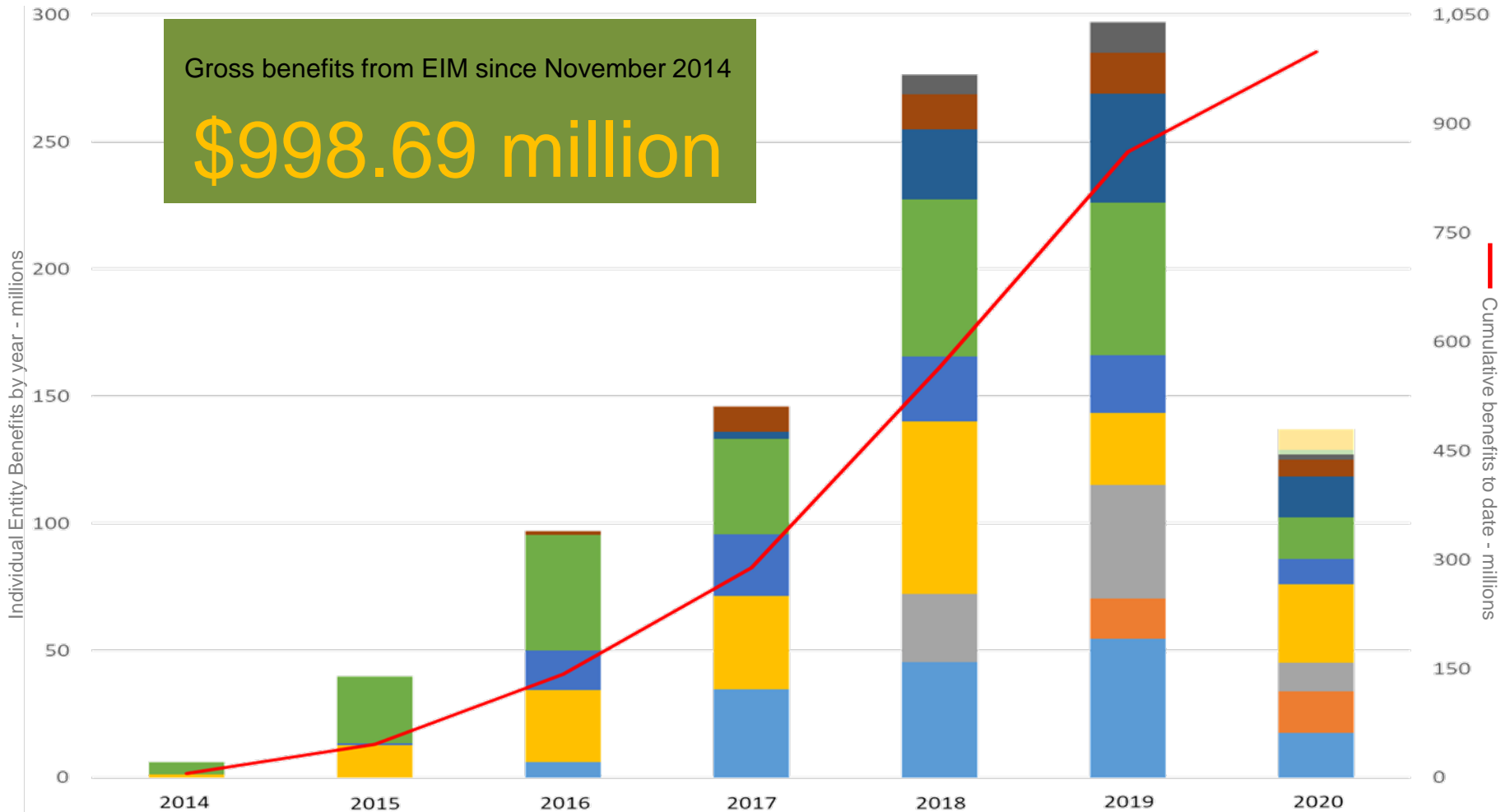
Board of Governors

General Session

October 1, 2020

# \$79 million gross economic benefits – 2020 2<sup>nd</sup> Qtr.

Gross benefits from EIM since November 2014  
**\$998.69 million**



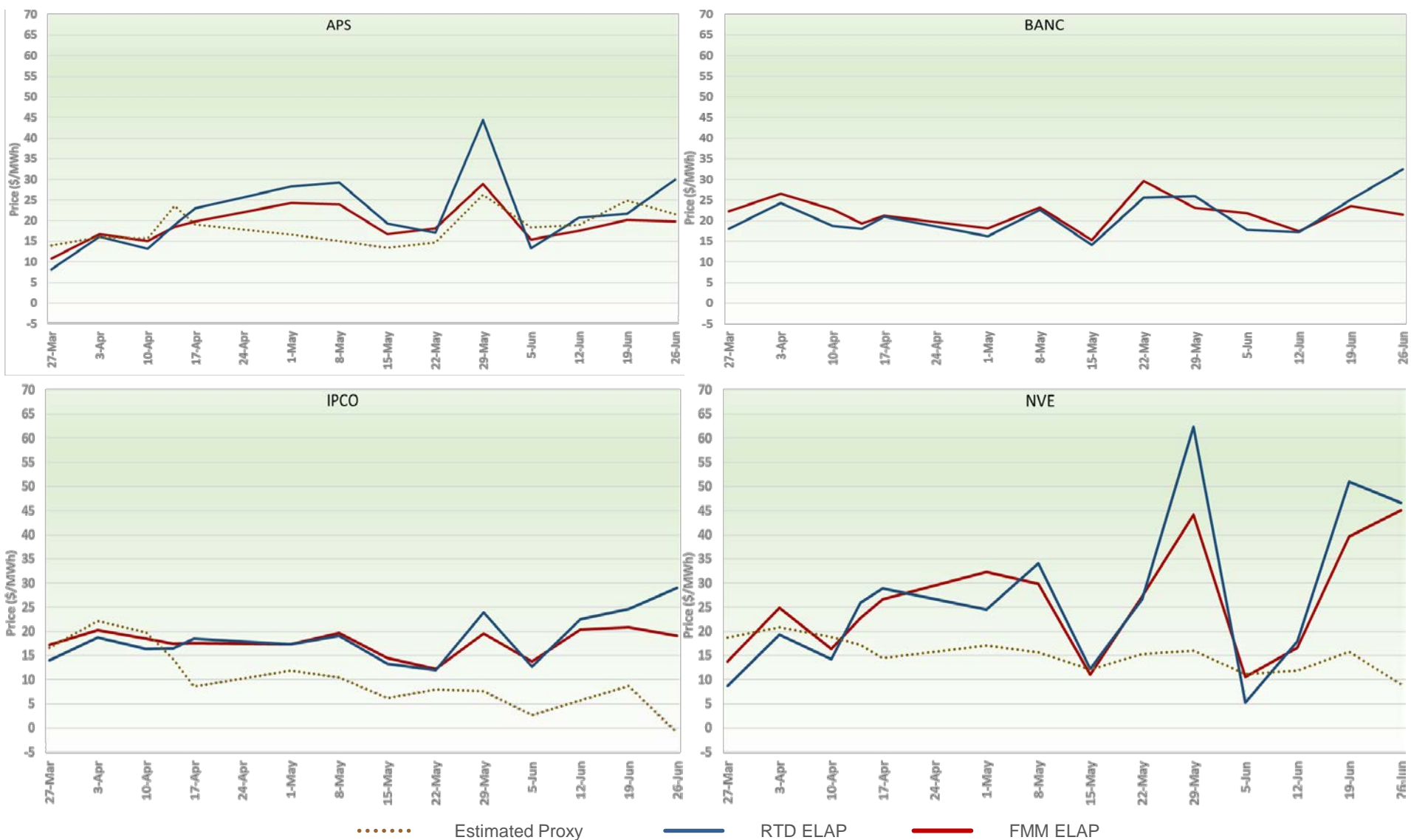
Individual Entity Benefits for 2<sup>nd</sup> Quarter - millions



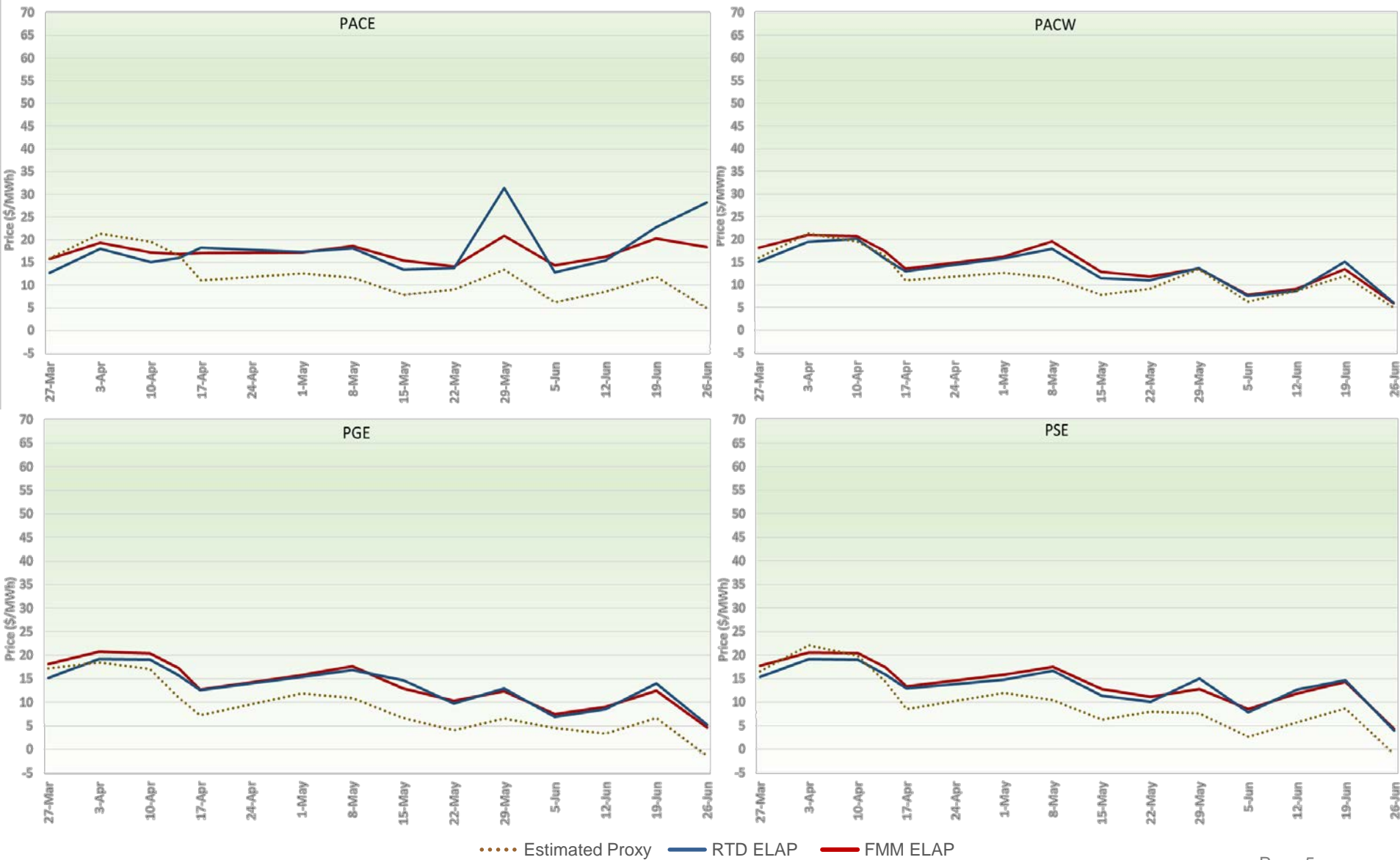
# Flexible ramping procurement diversity savings for 2<sup>nd</sup> Quarter, 2020

	January		February		March	
Direction	Up	Down	Up	Down	Up	Down
Average MW saving	961	945	966	999	953	988
Sum of BAA requirements	1,983	1,998	1,957	1,990	2,050	1,840
Diversity Benefit	48%	47%	49%	50%	47%	54%
Estimated Savings	\$3,849	\$7,963	\$16,169	\$47,856	\$32,170	\$91,041

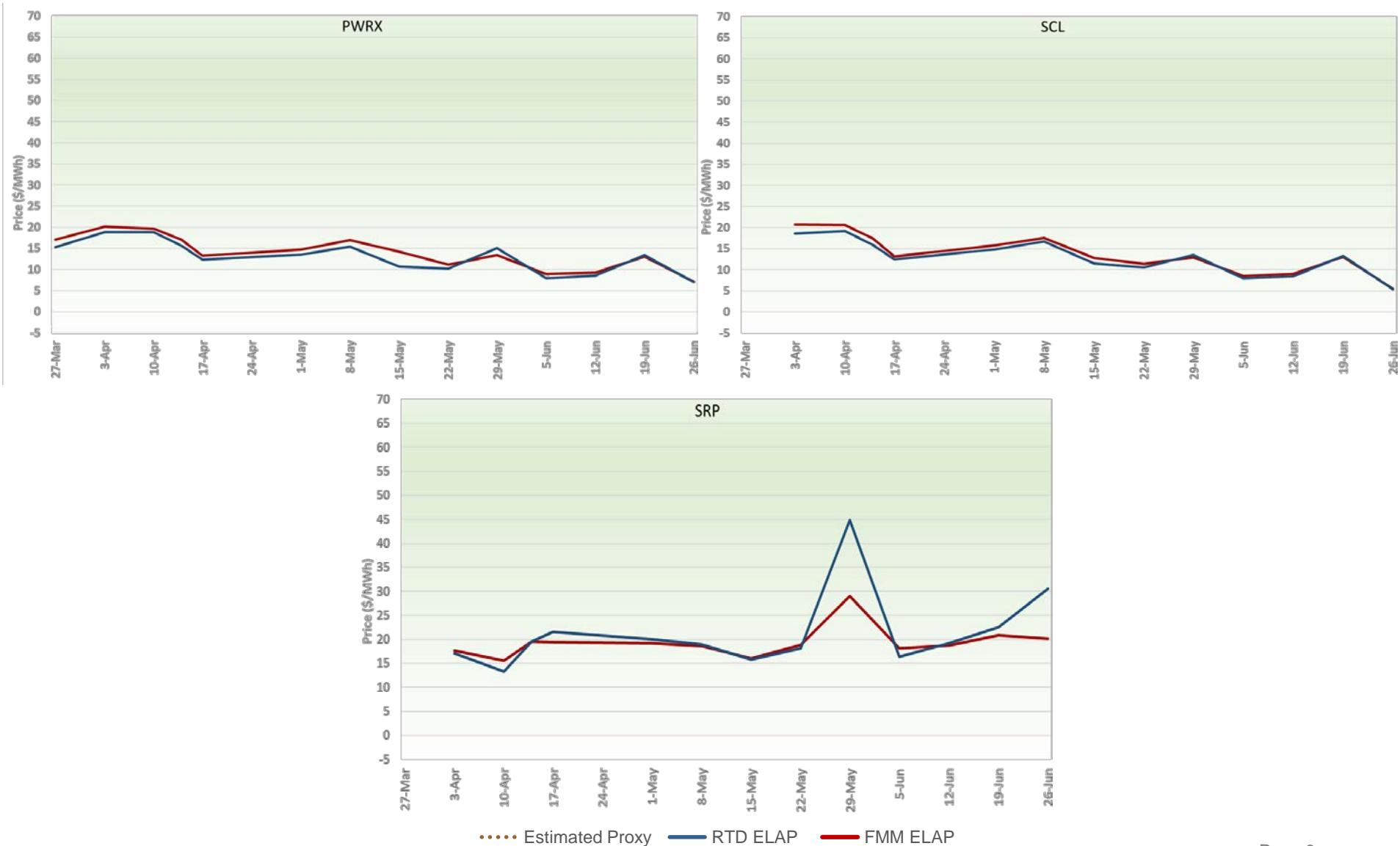
# Weekly average prices in EIM areas



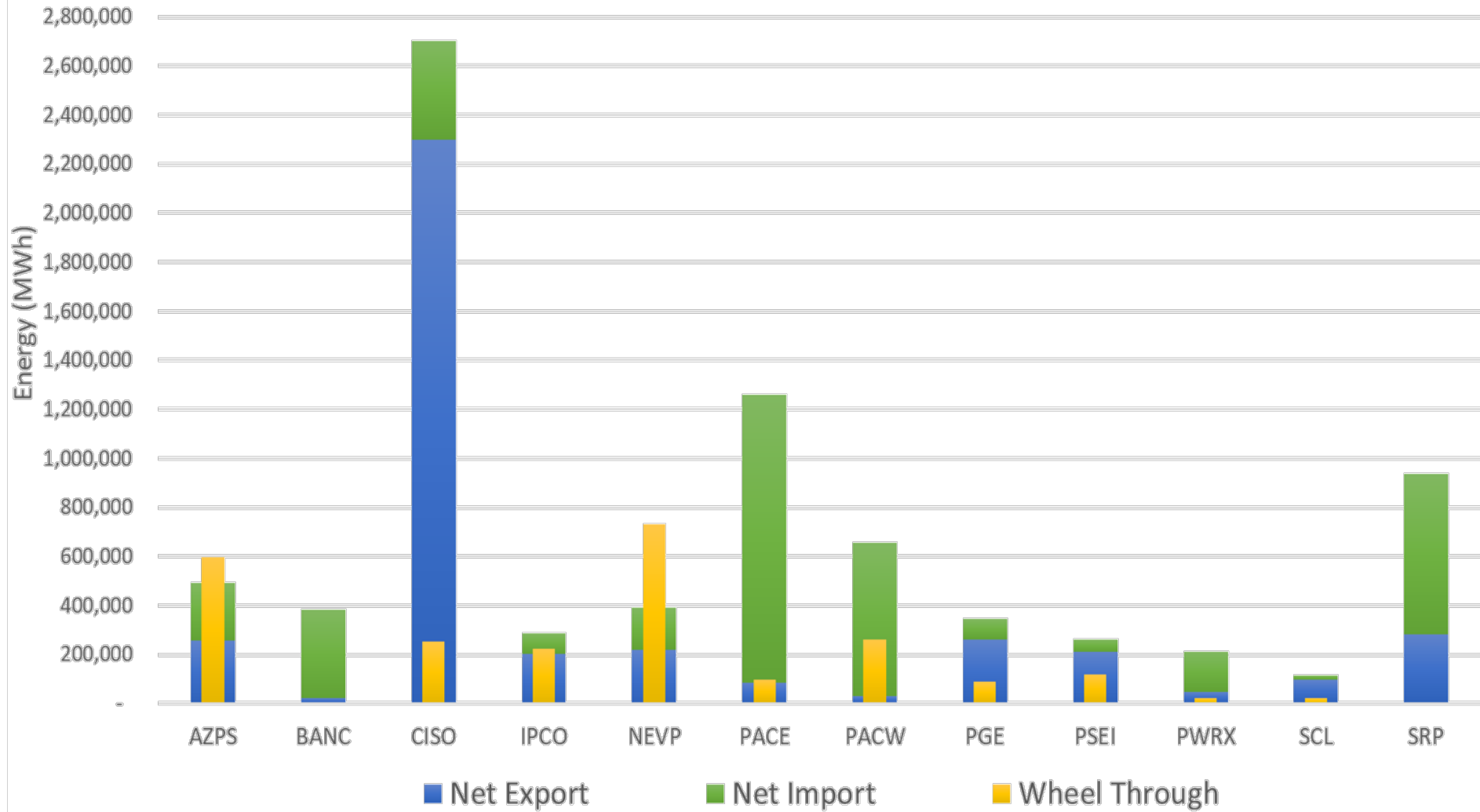
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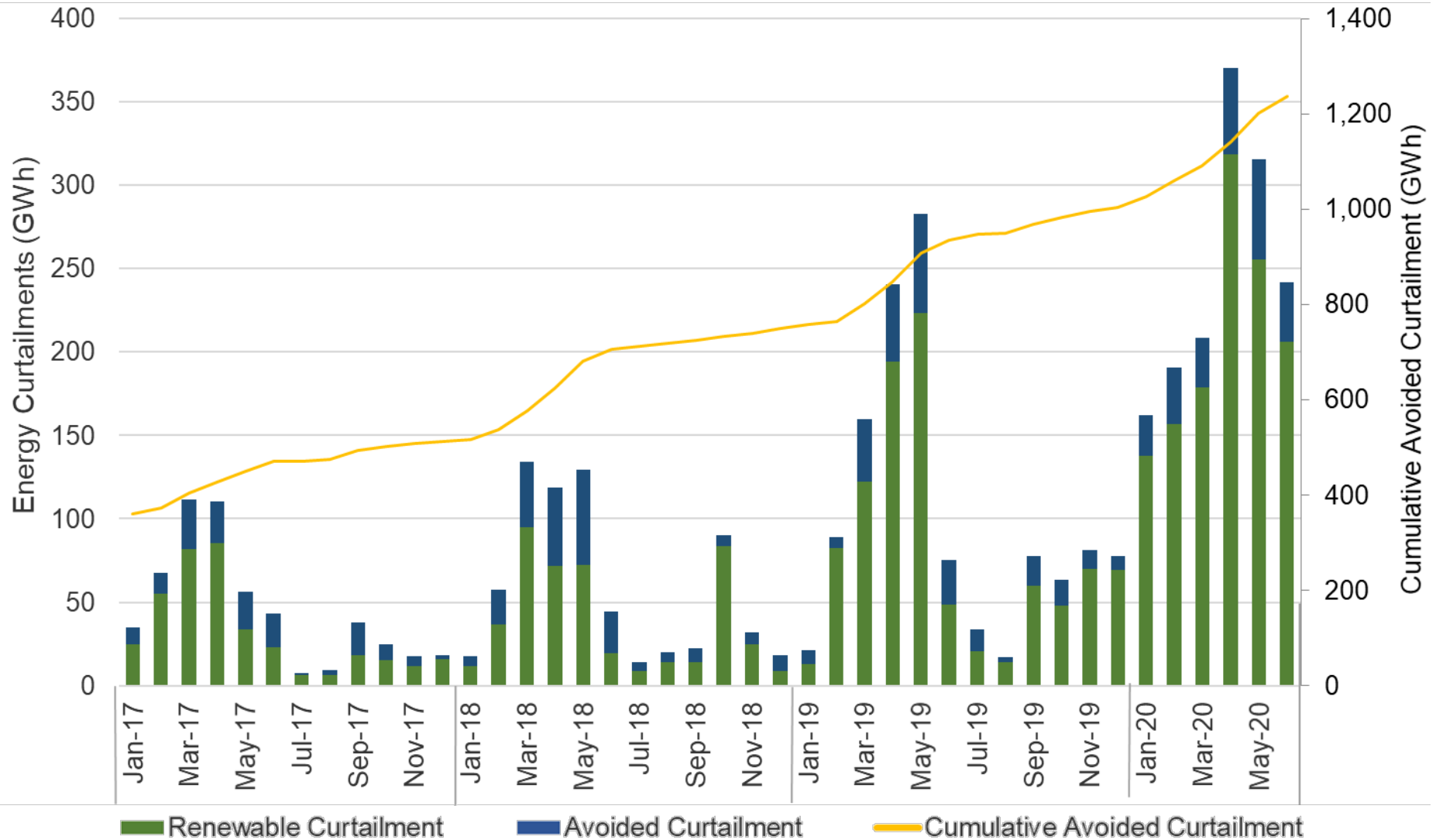
# Weekly average prices in EIM areas



# Estimated wheel through transfers in Q2, 2020

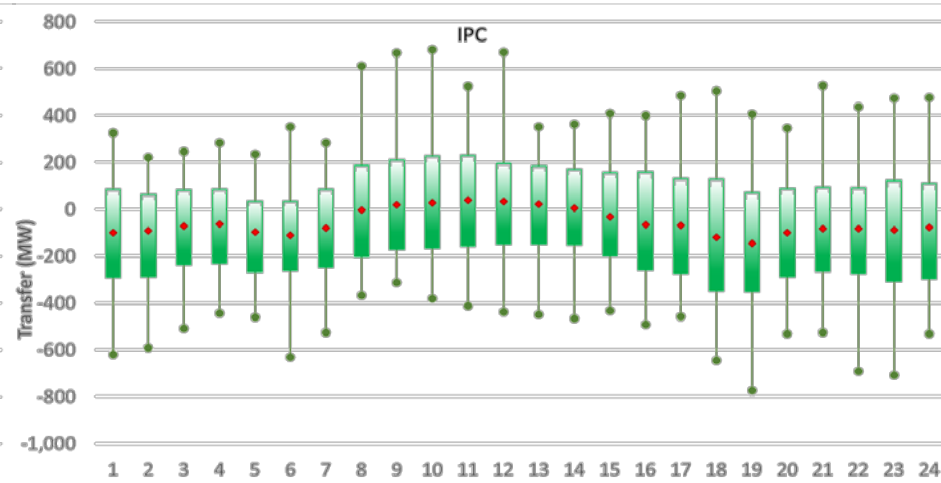
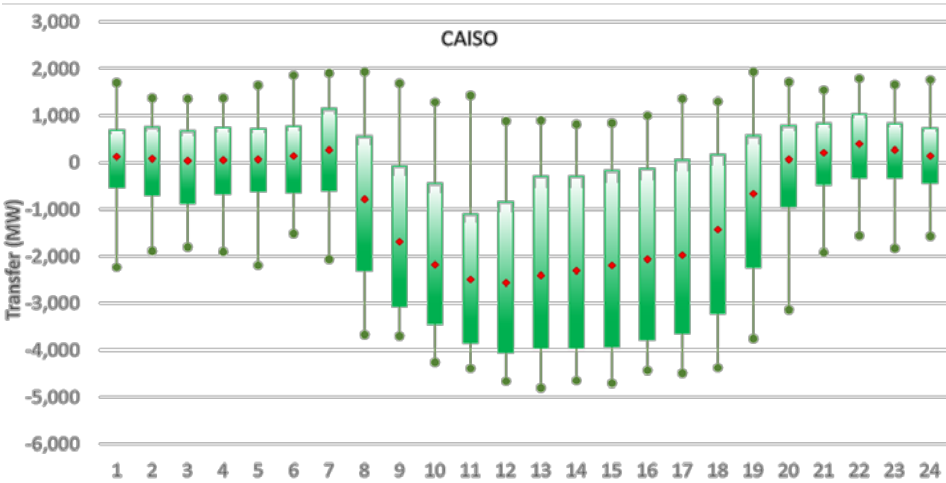
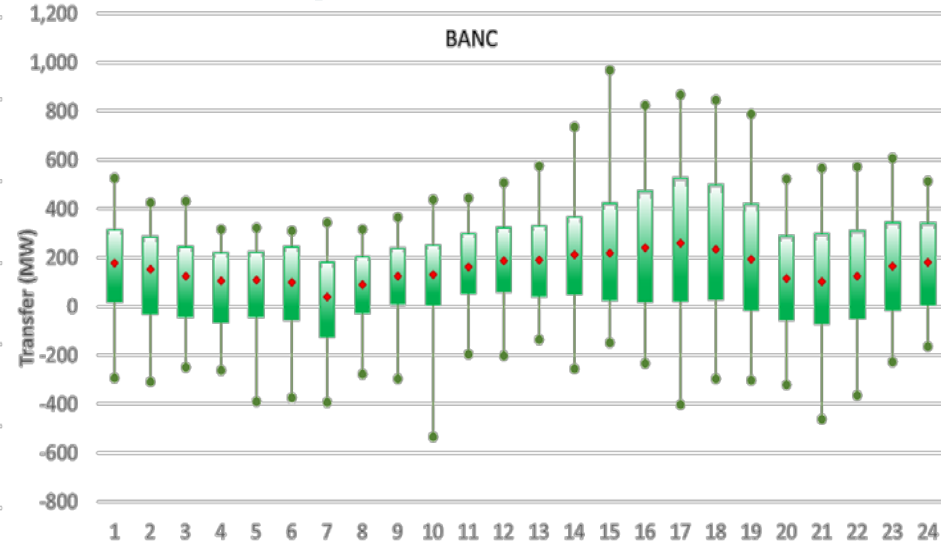
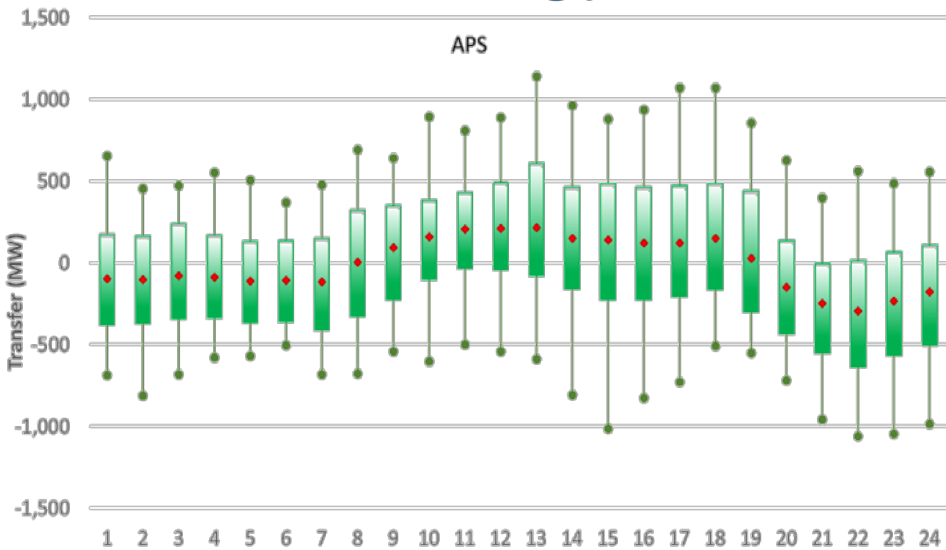


# Energy imbalance market helps avoid curtailment





# Robust energy transfers in 2<sup>nd</sup> quarter, 2020



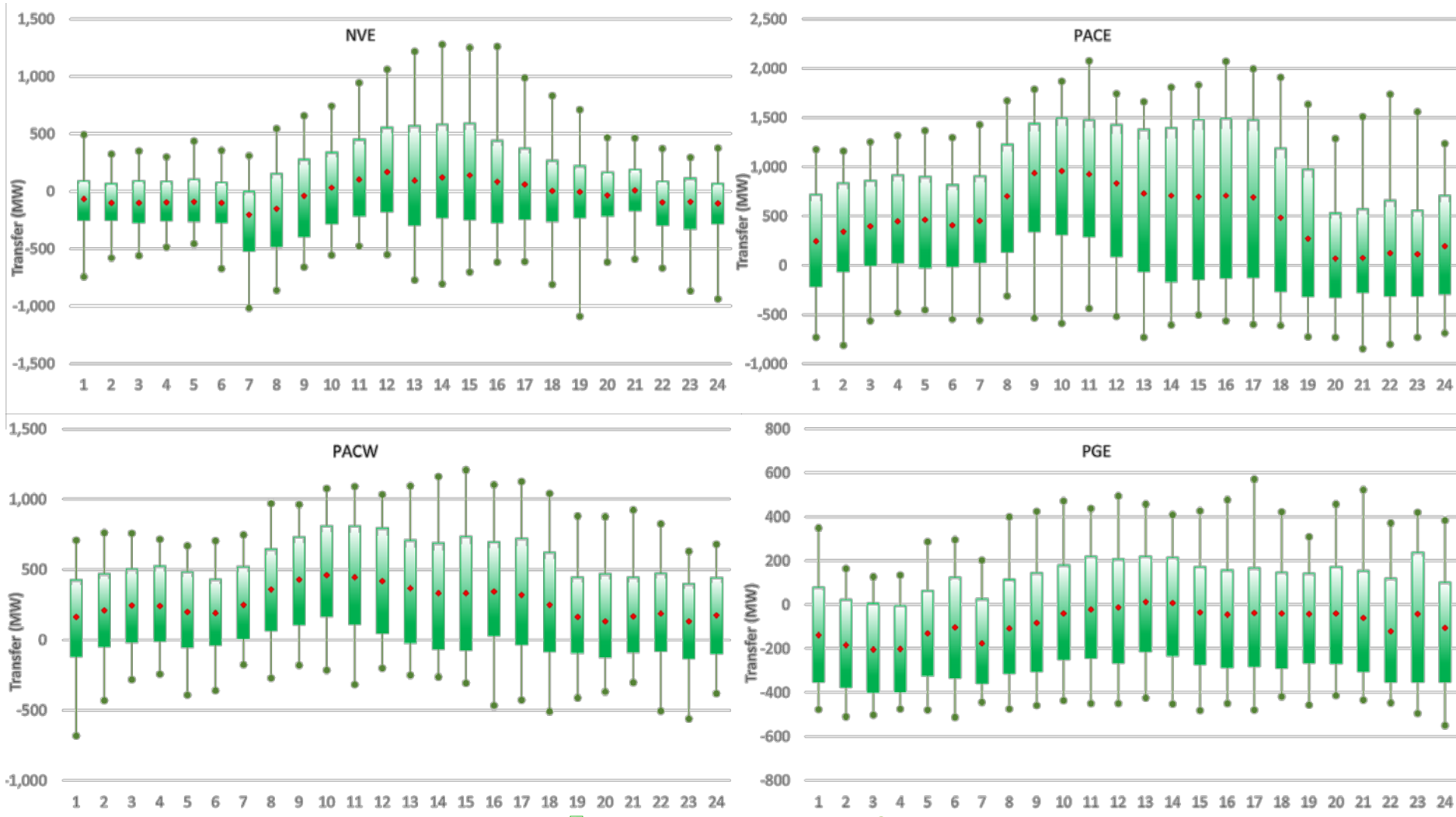
Transfer Axis: (+) Import (-) Export

10<sup>th</sup> to 90<sup>th</sup> percentile


Tails are max and min


Simple averages


# Robust energy transfers in 2<sup>nd</sup> quarter, 2020



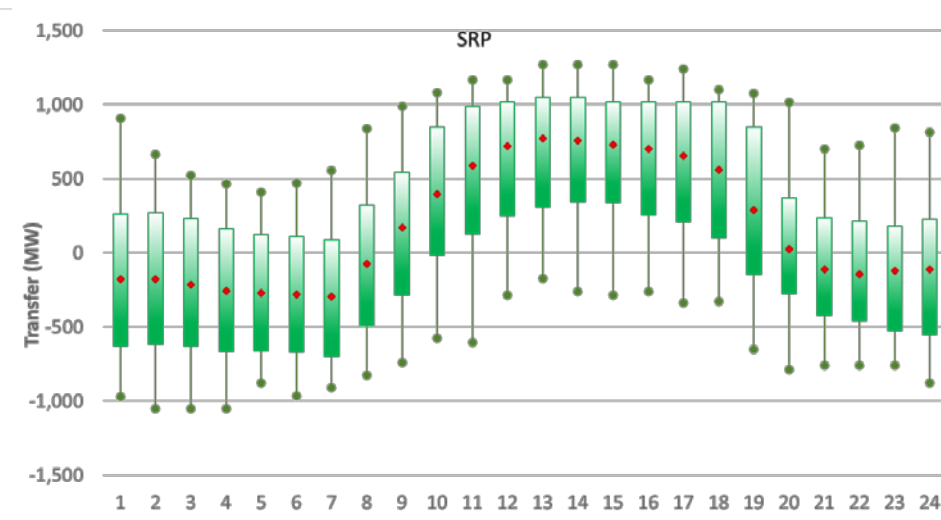
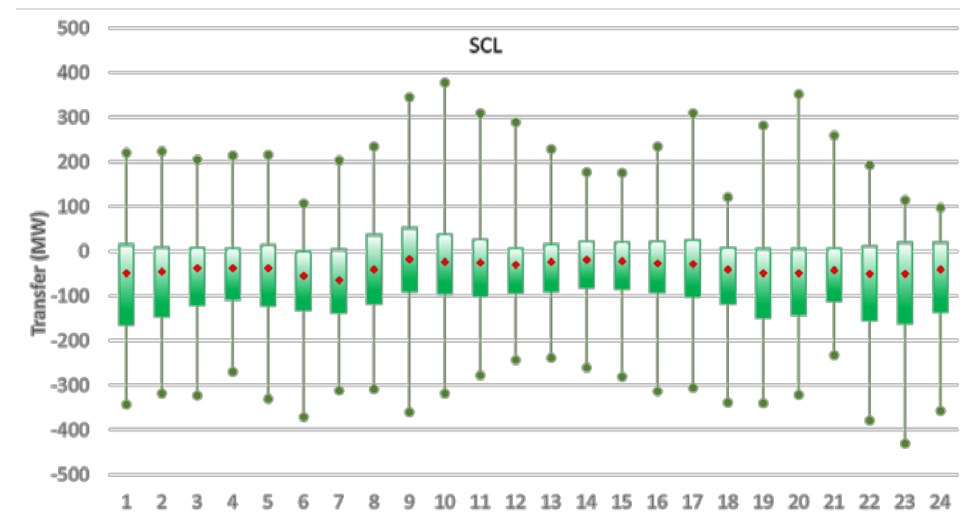
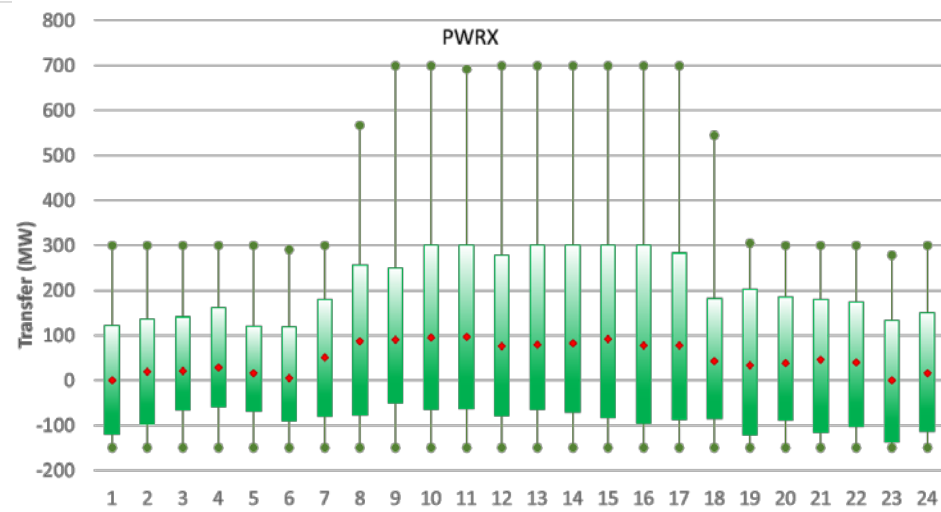
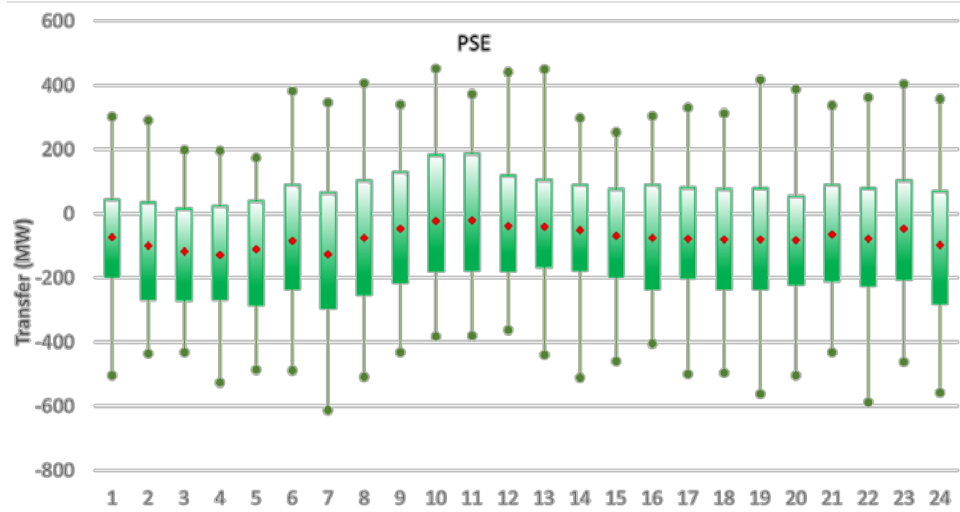
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