

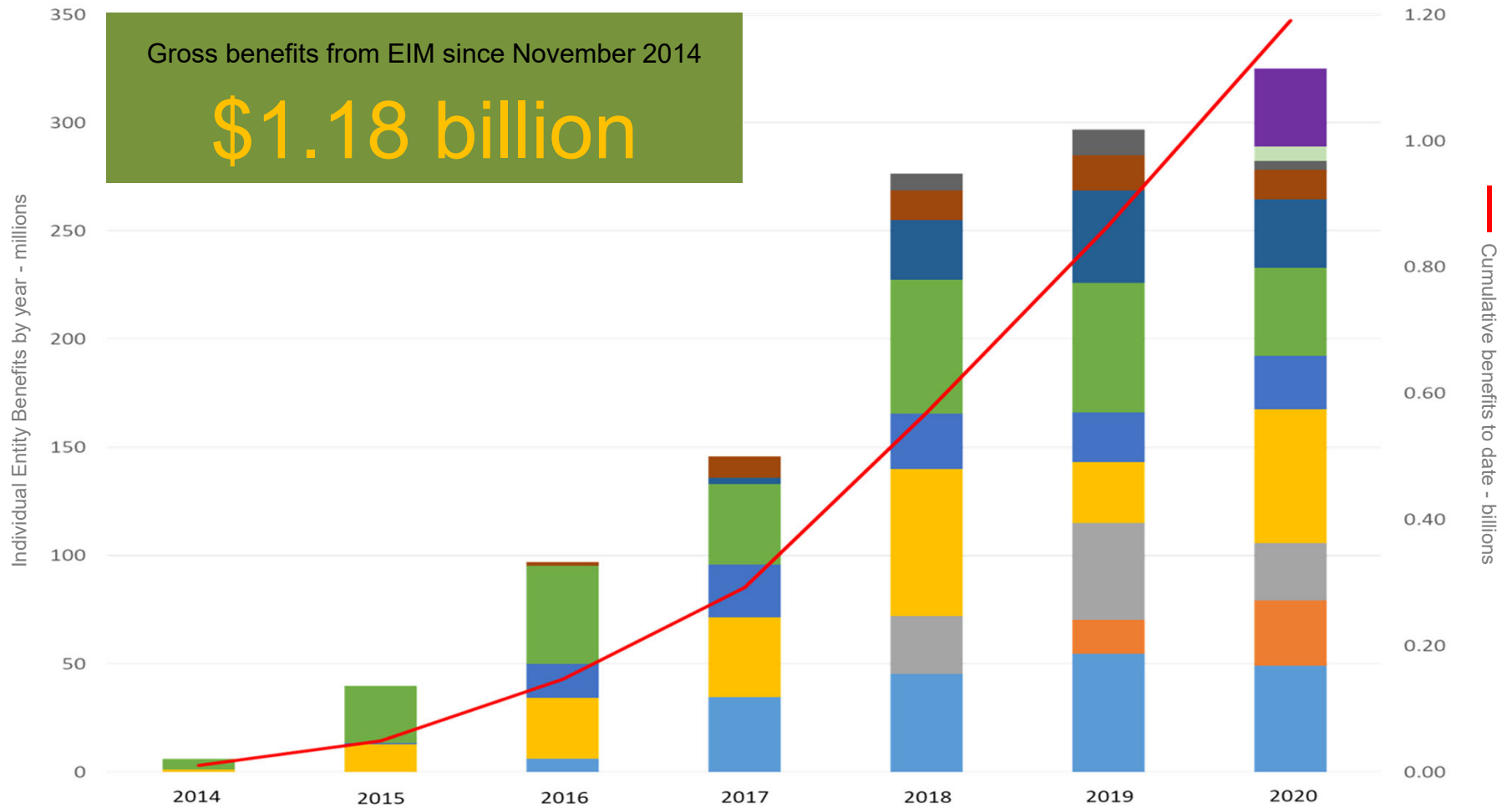


# Briefing on western energy imbalance market and benefits

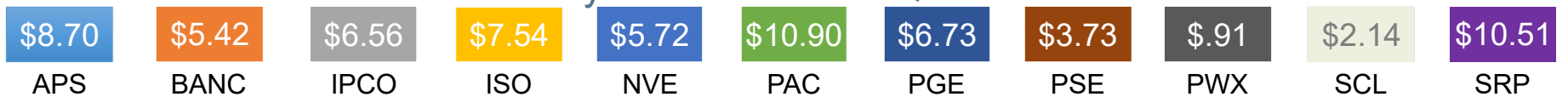
Guillermo Bautista Alderete  
Director, Market Analysis & Forecasting

Board of Governors Meeting  
General Session  
March 24, 2021

# \$68.86 million gross economic benefits in Q4 2020



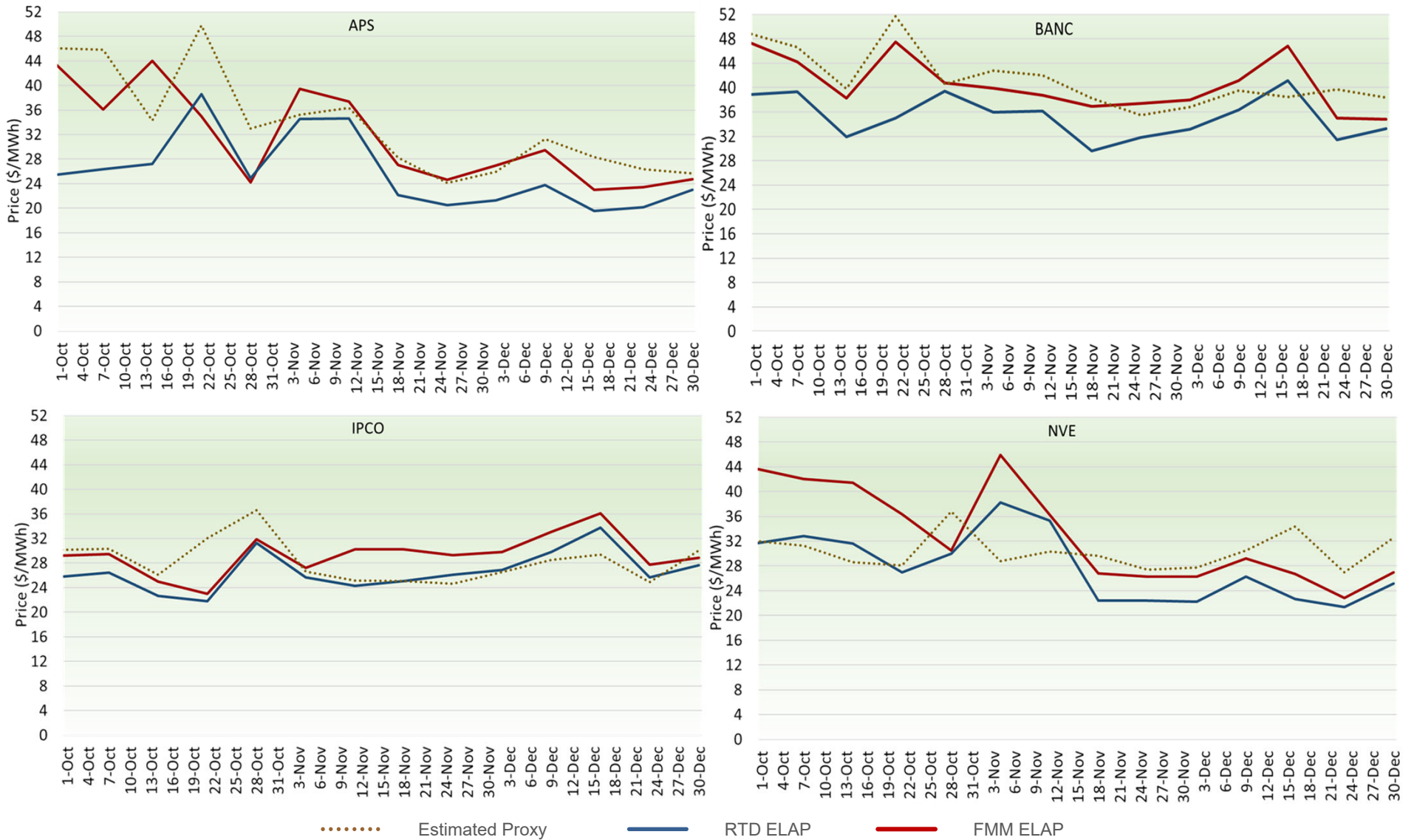
## Individual Entity Benefits for 4<sup>th</sup> Quarter - millions



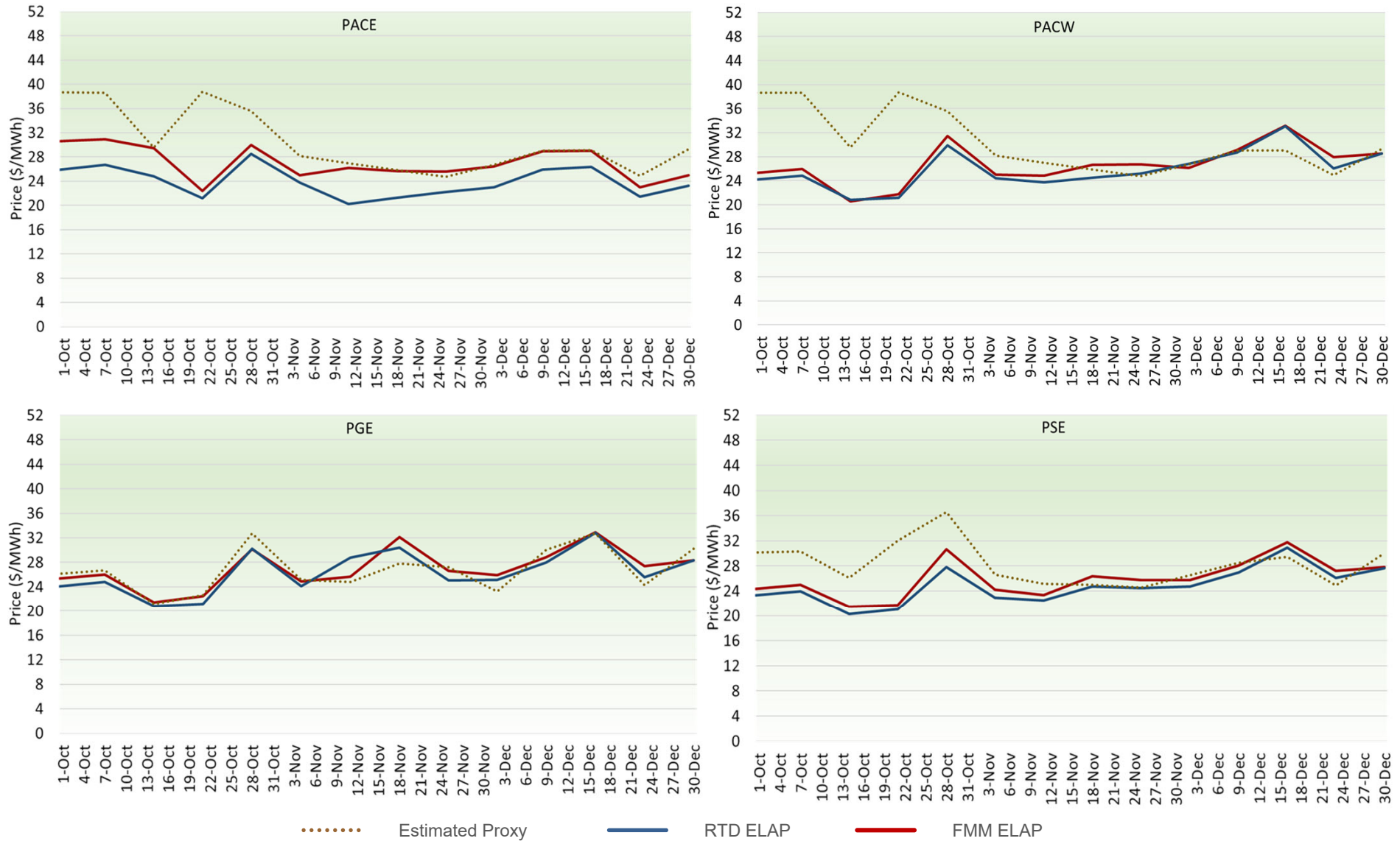
# Q4 2020 Flexible ramping diversity savings

	October		November		December	
Direction	Up	Down	Up	Down	Up	Down
Average MW saving (MW)	831	882	828	872	962	914
Sum of BAA requirements (MW)	2,116	1,698	1,871	1,711	1,947	1,772
Diversity Benefit	39%	52%	44%	51%	49%	52%
Estimated Savings	\$266,649	\$0	\$81,203	\$0	\$70,340	\$0

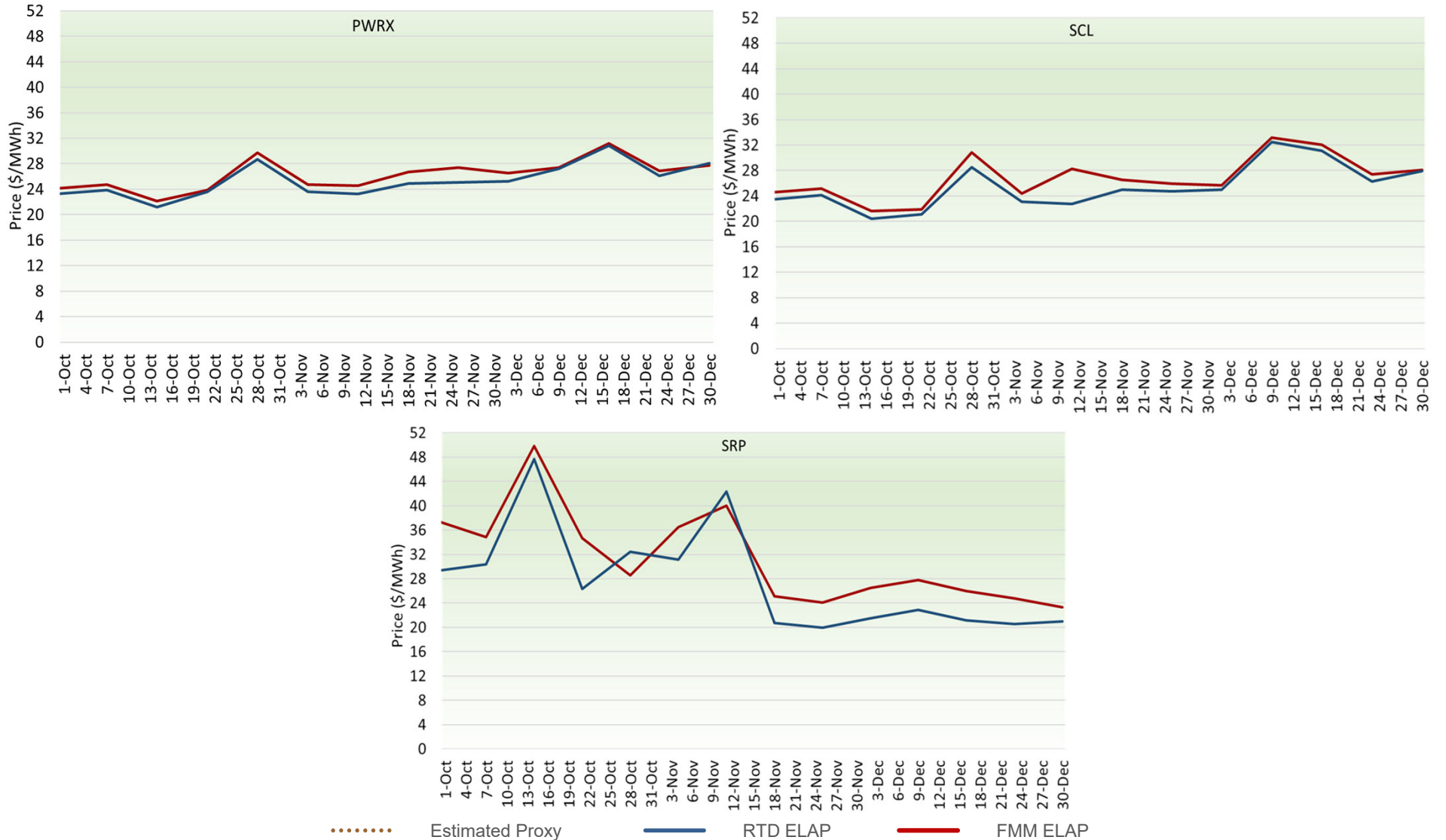
# Weekly average prices in EIM areas



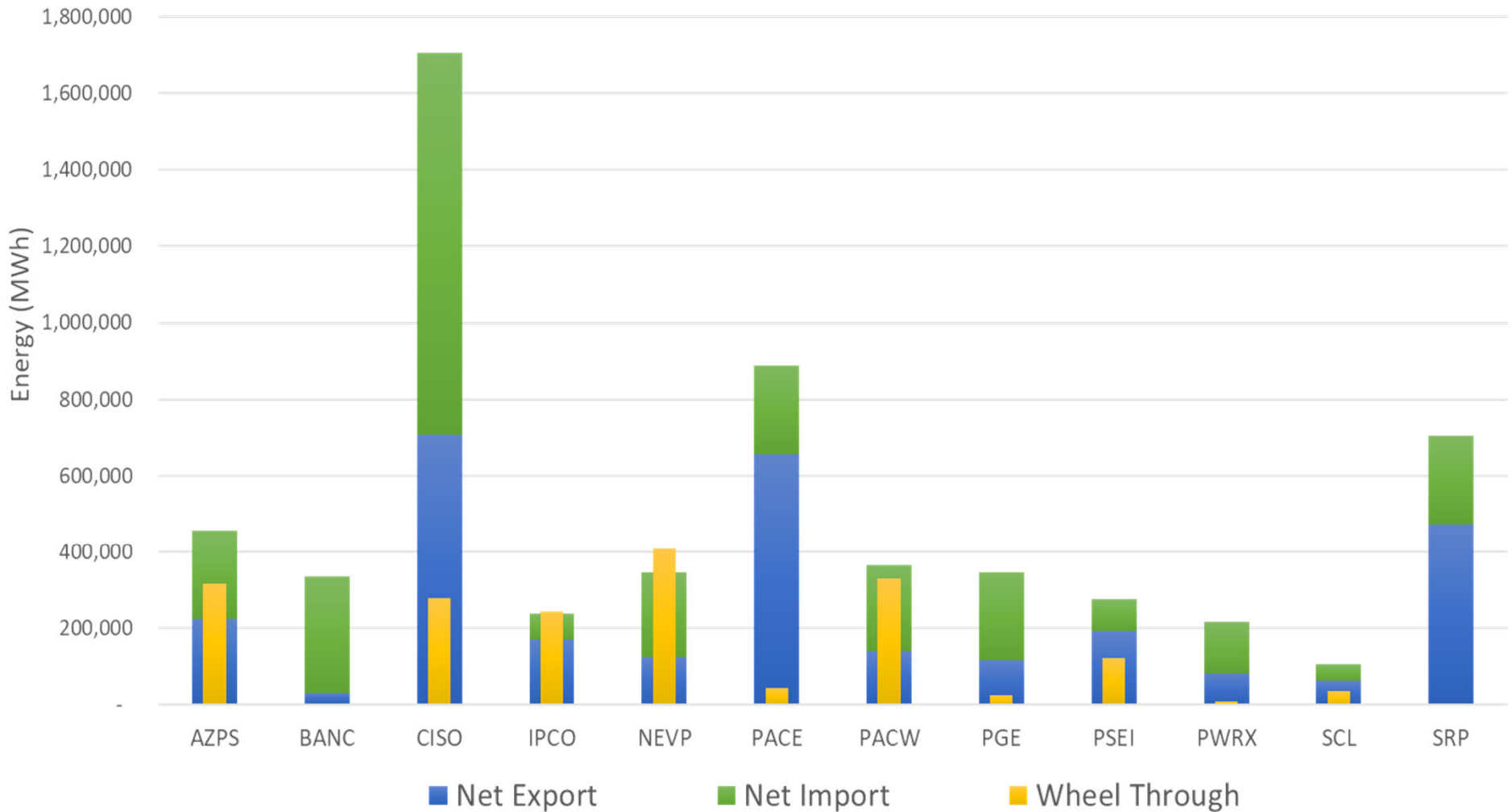
# Weekly average prices in EIM areas



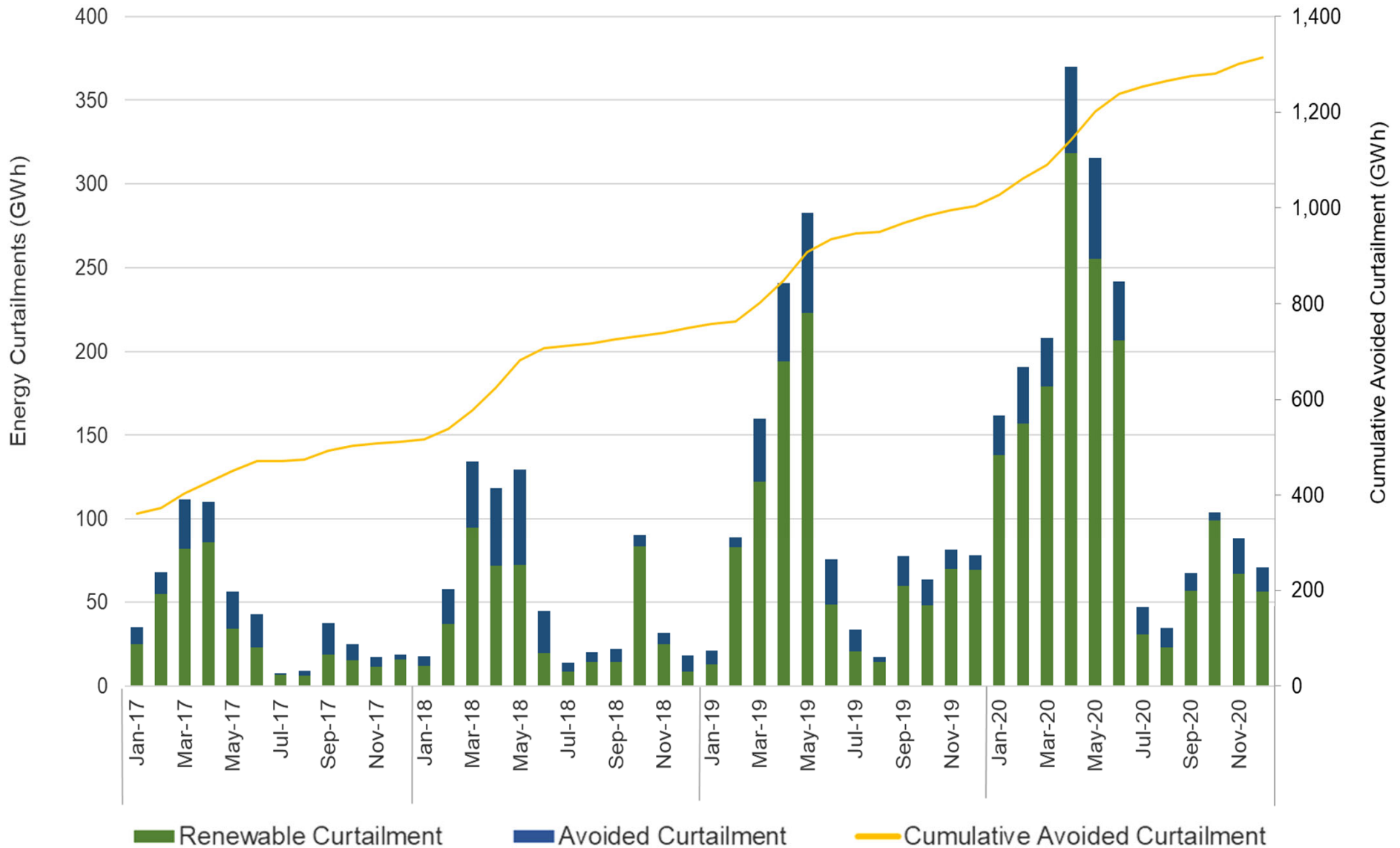
# Weekly average prices in EIM areas



# Estimated wheel-through transfers in Q4 2020

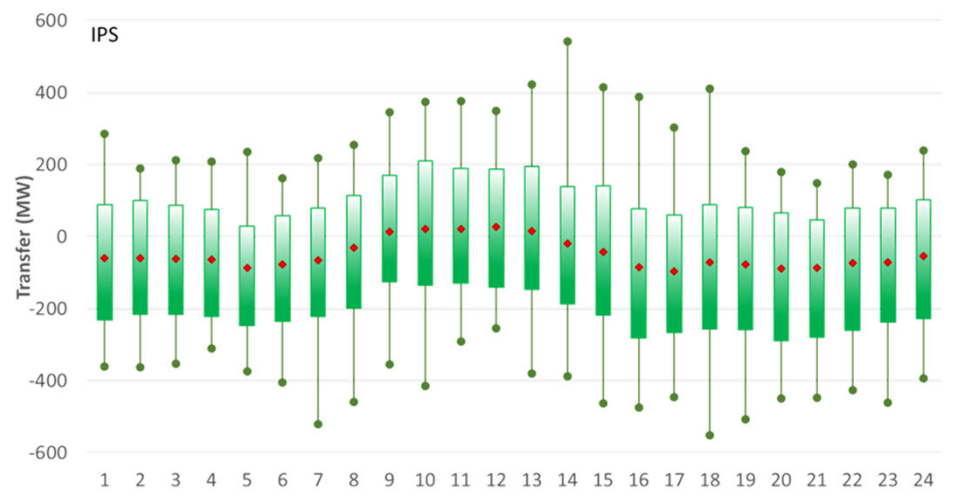
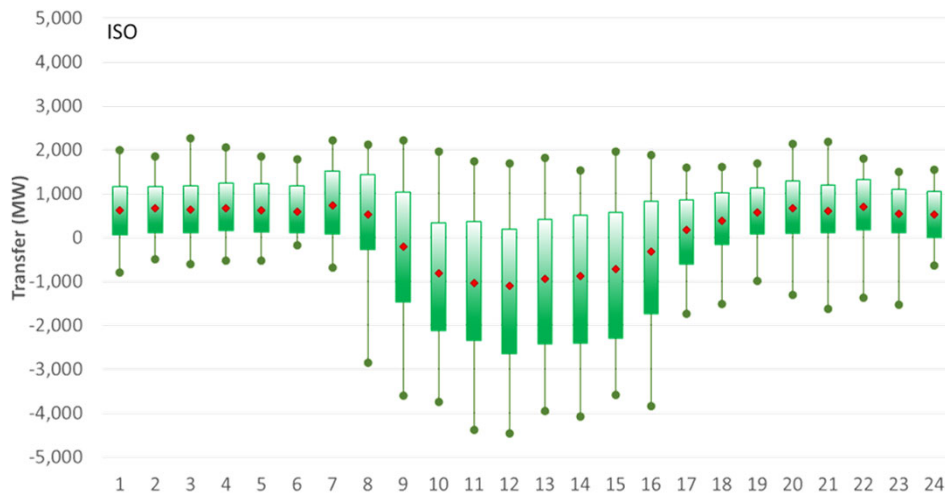
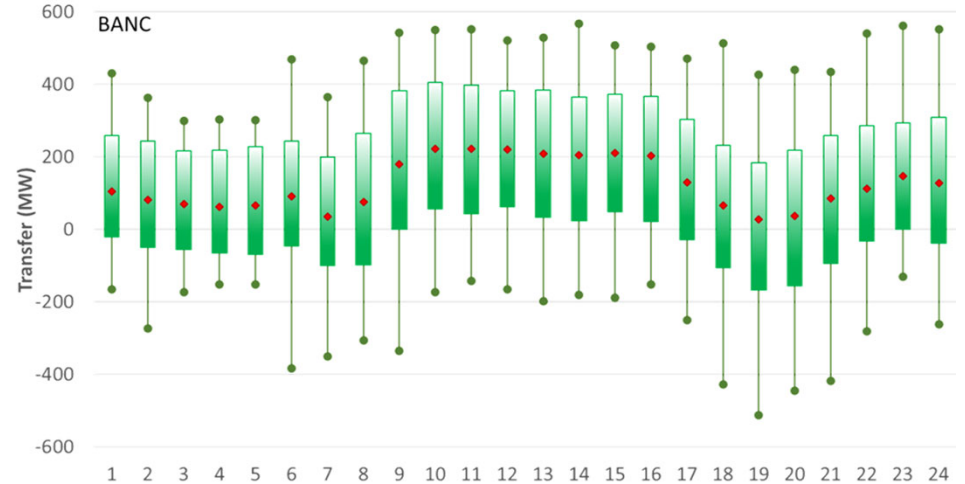
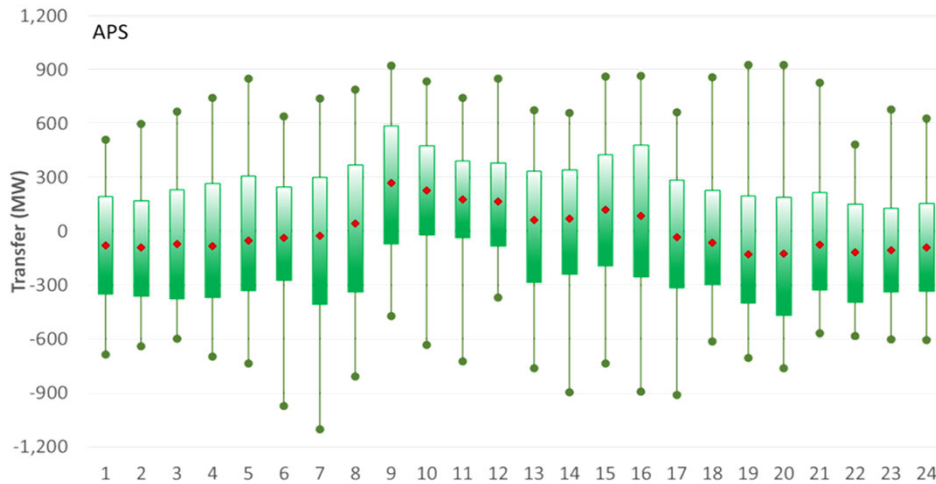


# Western EIM helps avoid curtailments





# Robust energy transfers in Q4 2020



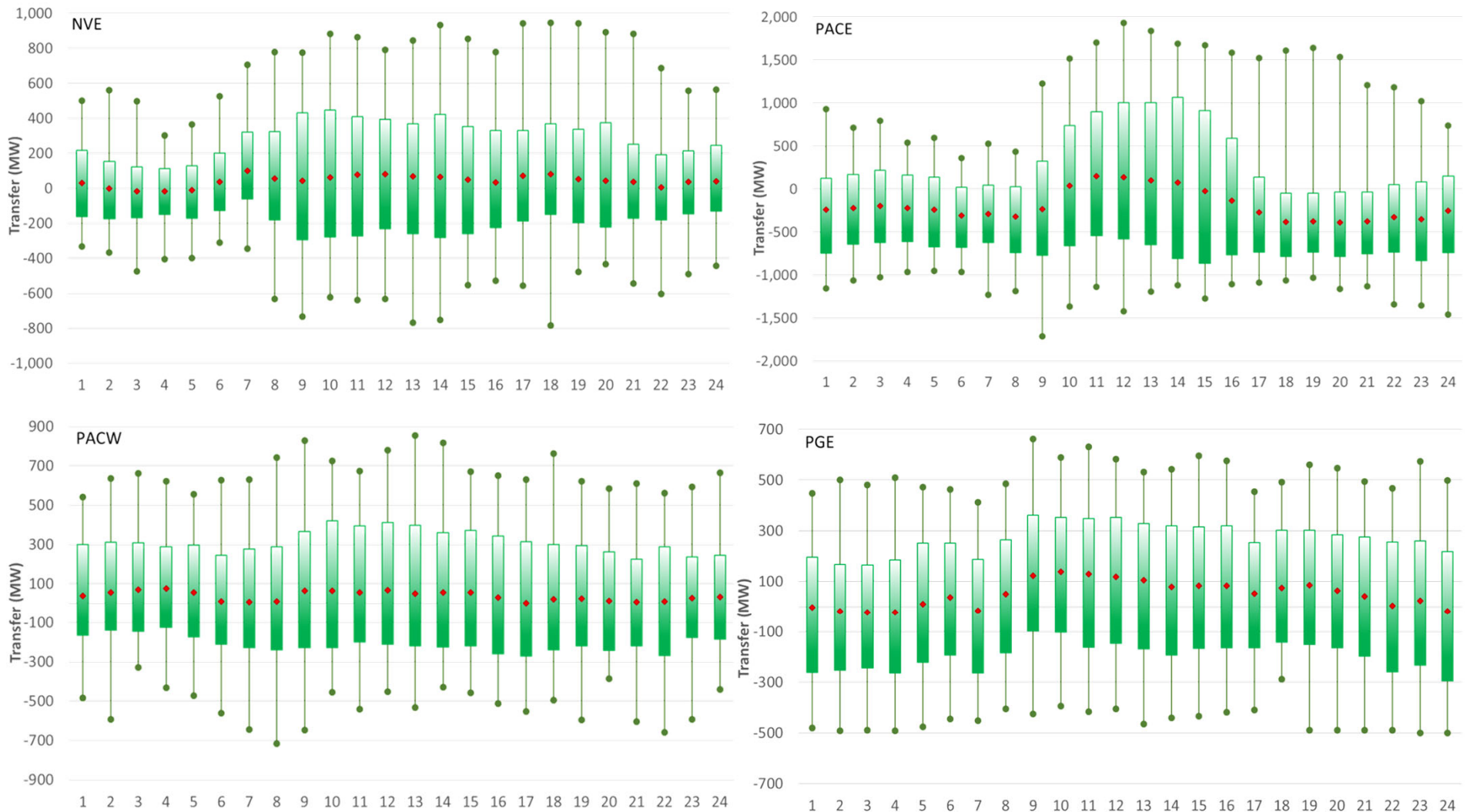
Transfer Axis: (+) Import (-) Export

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

Tails are max and min

◆ Simple averages

# Robust energy transfers in Q4 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 Q4 2020

