



NY-Sun Performance-Based (>200kW) Program

October 8, 2014

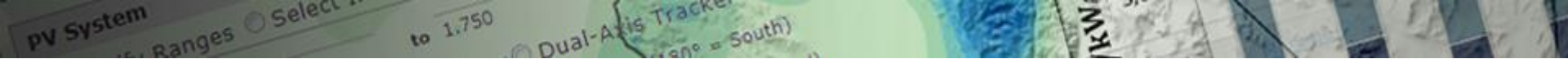
Prepared for
NYSERDA

Prepared by
Clean Power Research



Outline

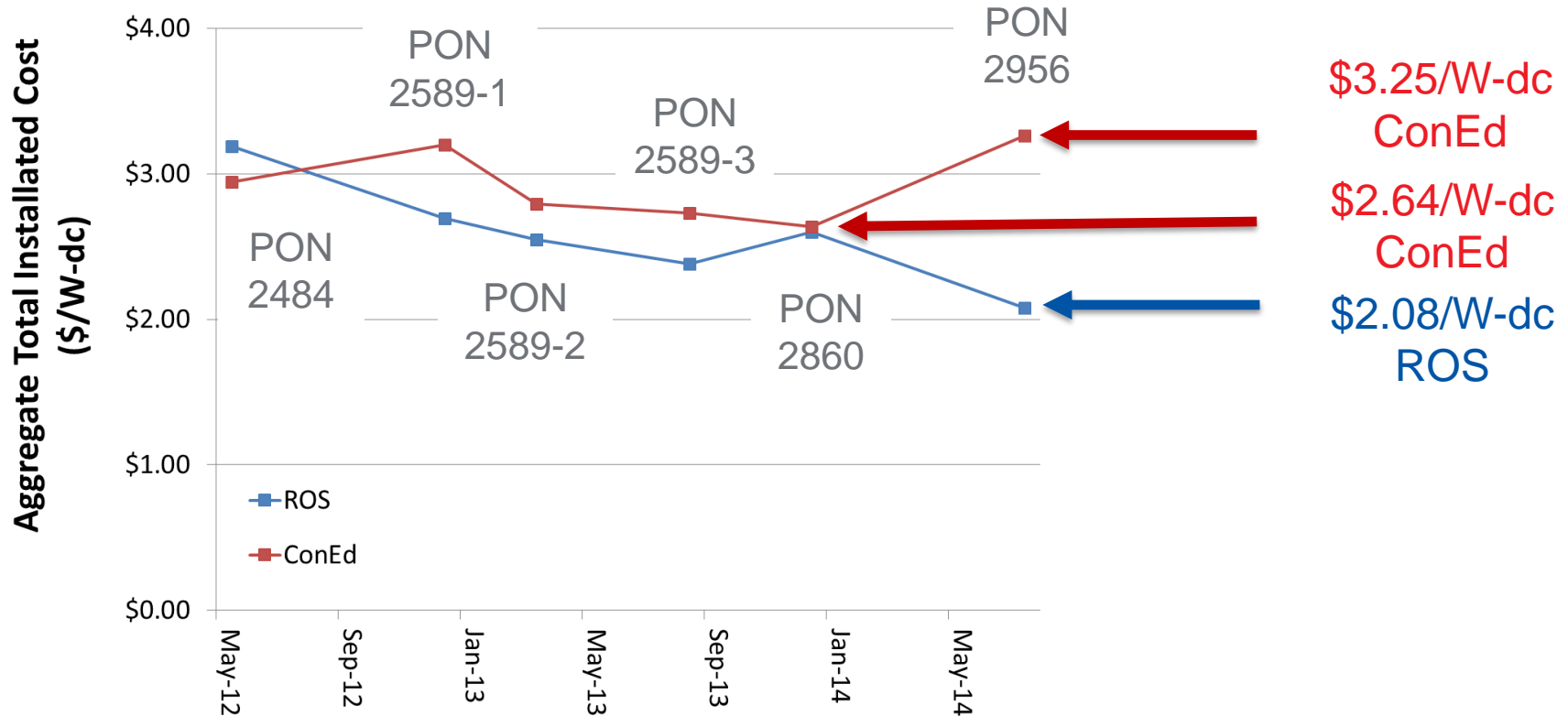
- Key Metrics by PON
 - Aggregate Total Installed Cost (\$/W-dc)
 - Aggregate Base Incentive (\$/W-dc)
 - Aggregate Base Incentive / Aggregate Total Installed Cost (%)
 - PV Capacity Commitment Rates
- Analysis of System Differentiators
 - Strategic Location
 - Remote Net Metering
 - Rooftop vs Ground Mount



Key Metrics by PON

Aggregate Total Installed Cost

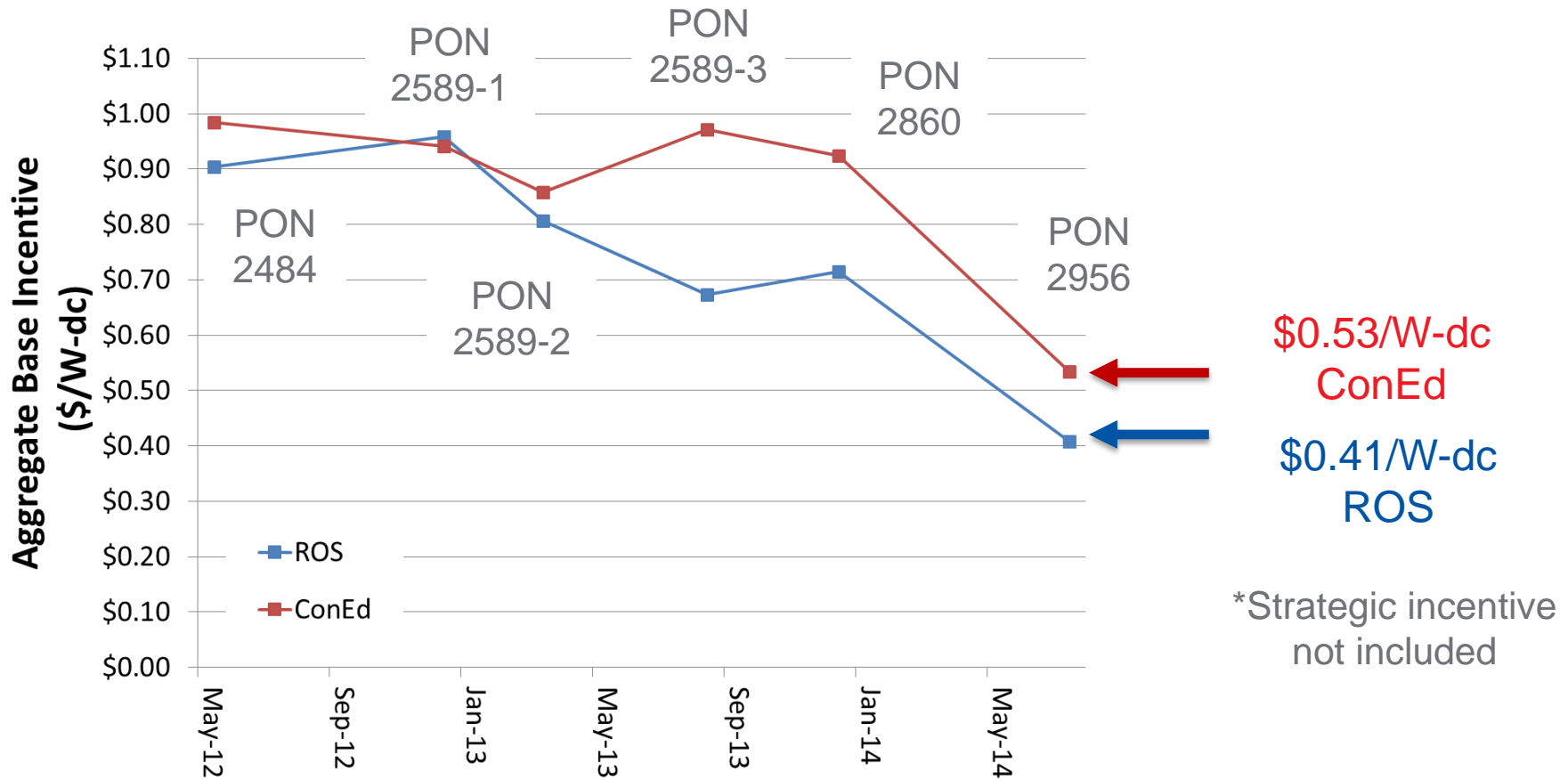
- Rest of State (ROS) aggregate total installed costs are decreasing
- ConEd aggregate total installed costs vary



$$\text{Aggregate Total Installed Cost} \left(\frac{\$}{W - dc} \right) = \frac{\sum \text{Total Installed Cost}_k (\$)}{\sum \text{System Capacity}_k (W - dc)}$$

Aggregate Base Incentive

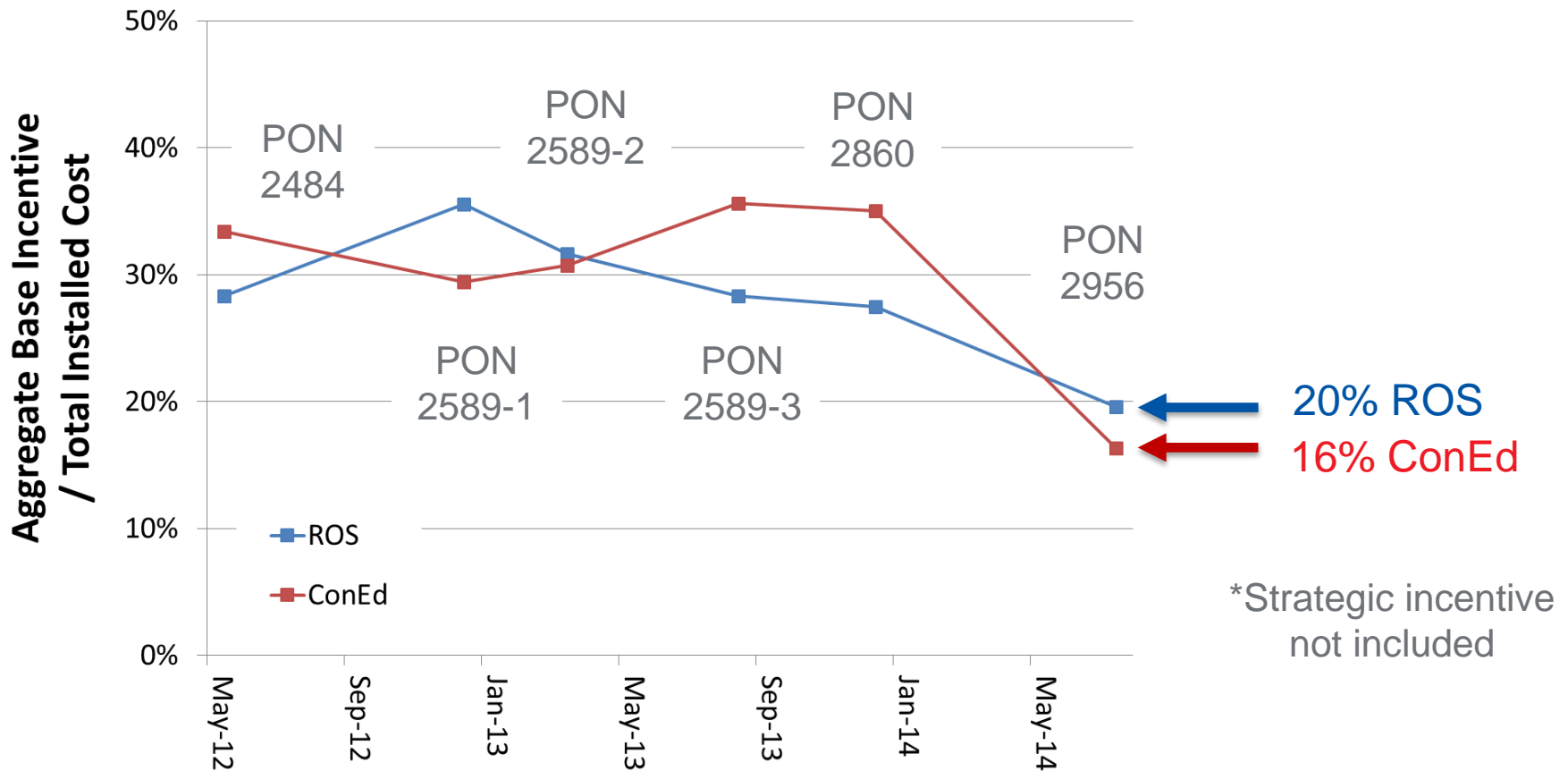
- Aggregate base incentive is decreasing with time in both regions



$$\text{Aggregate Base Incentive} \left(\frac{\$}{W - dc} \right) = \frac{\sum \text{Base Incentive}_k (\$)}{\sum \text{System Capacity}_k (W - dc)}$$

Aggregate Base Incentive / Total Installed Cost

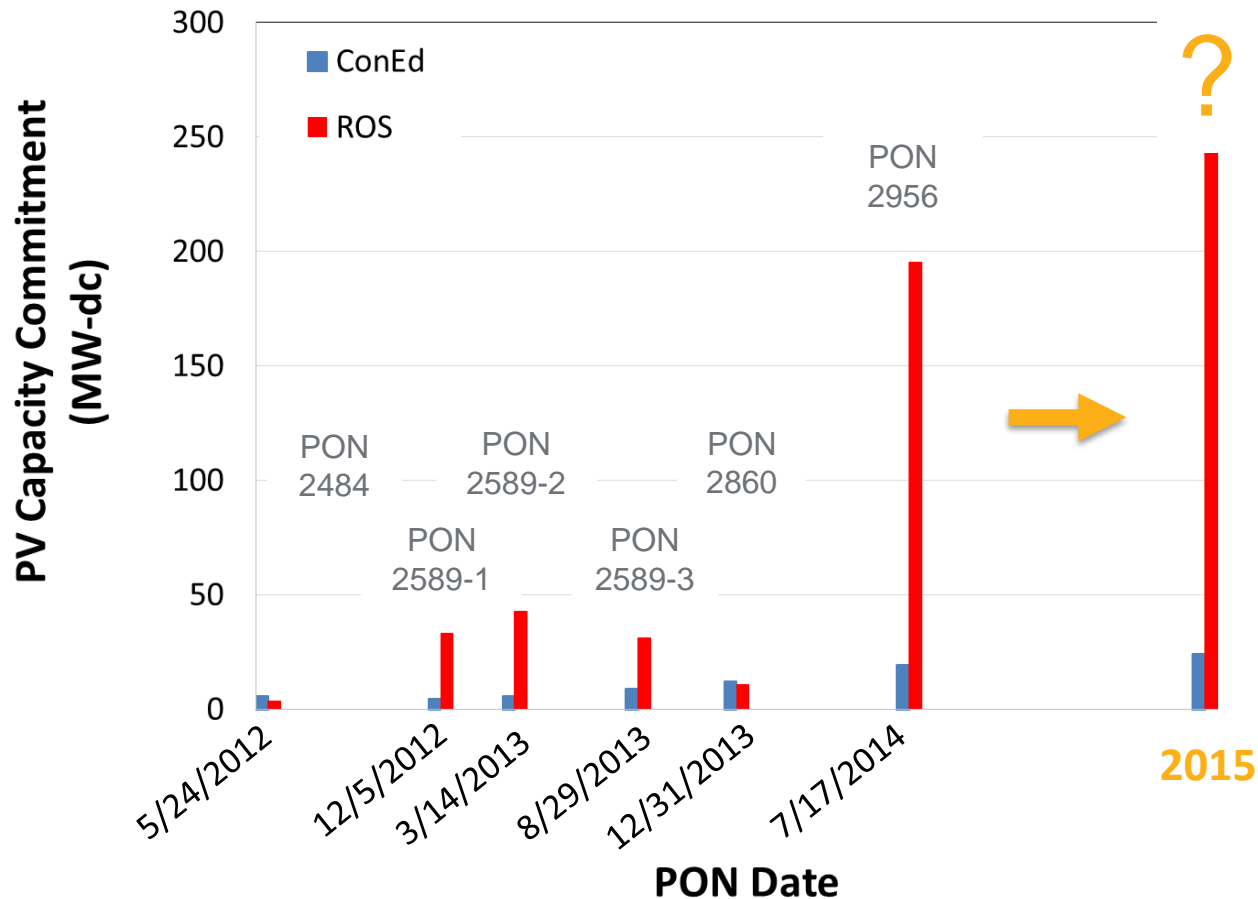
- Aggregate base incentive (%) decreased markedly in PON 2956

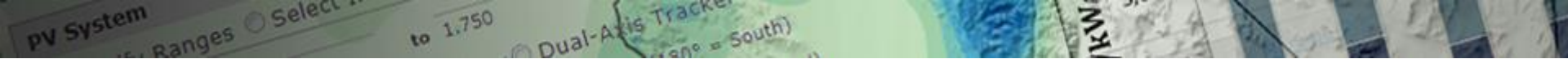


$$\text{Aggregate Base Incentive Pct. (\%)} = \frac{\sum \text{Base Incentive}_k (\$)}{\sum \text{Total Installed Cost}_k (\$)}$$

PV Capacity Awarded per PON

- Need to estimate PV capacity that will be committed in 2015 and 2016
- Important so that MW Blocks are not consumed too fast prior to the reduction in the federal investment tax credit



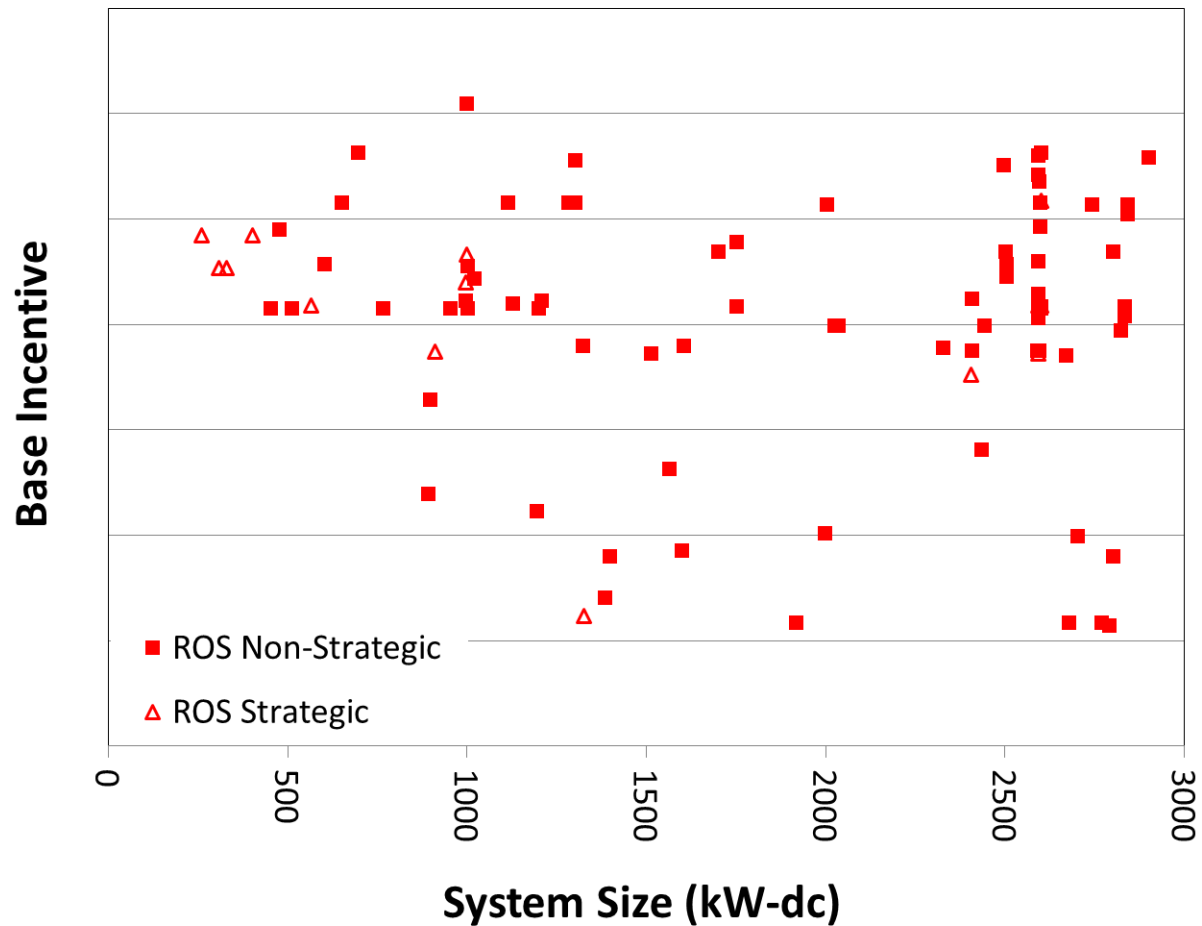


Strategic Location (PON 2956 Data)

Strategic Location

Base Incentive - ROS

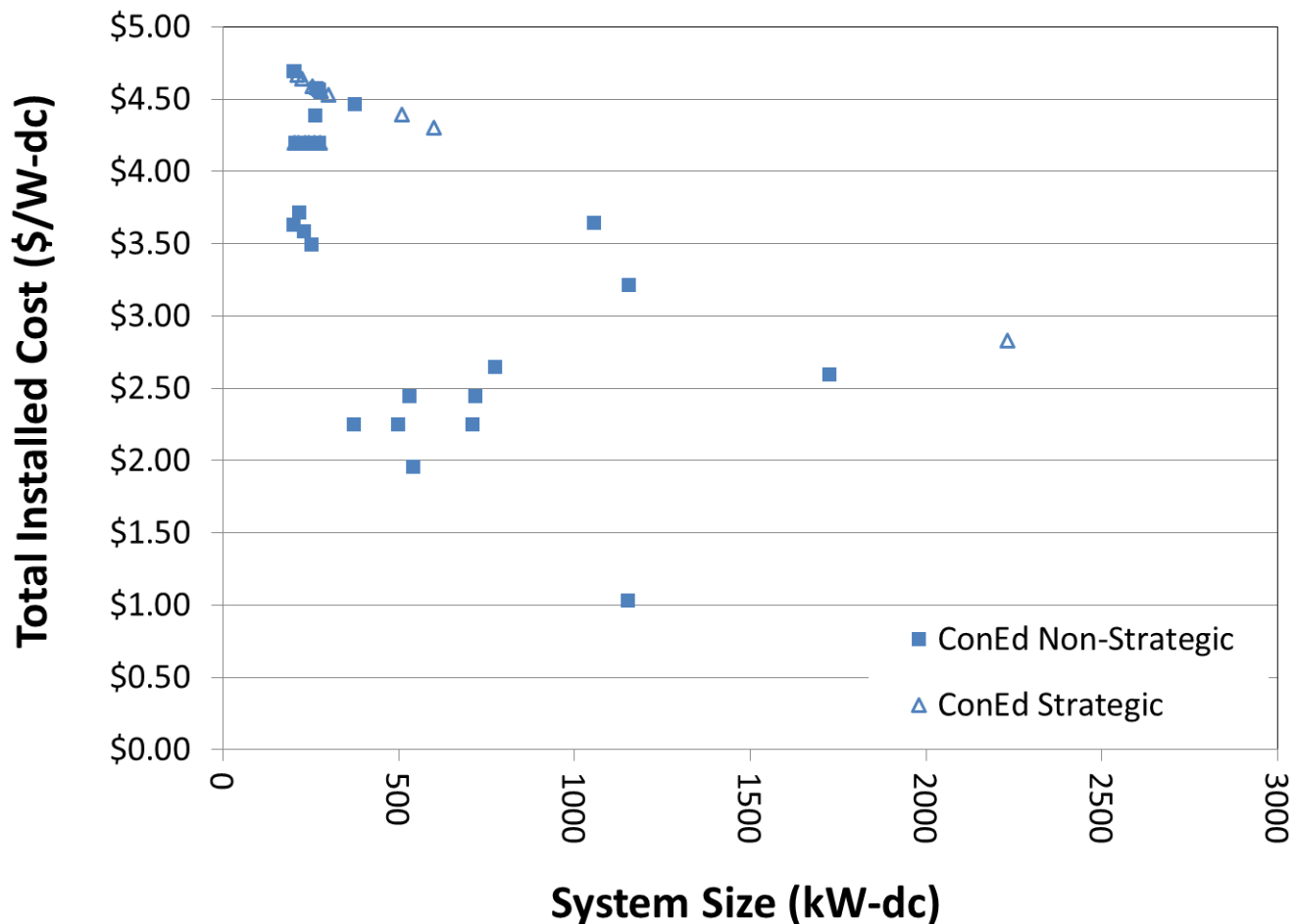
- ROS strategic systems exhibit no difference in base incentive

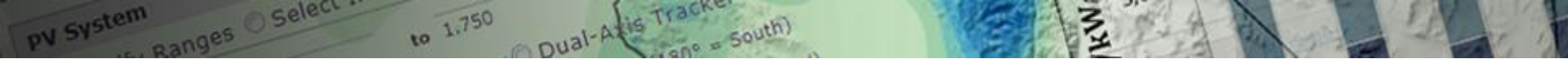


Strategic Location

Total Installed Cost - ConEd

- ConEd strategic systems exhibit higher total installed costs (limited dataset)



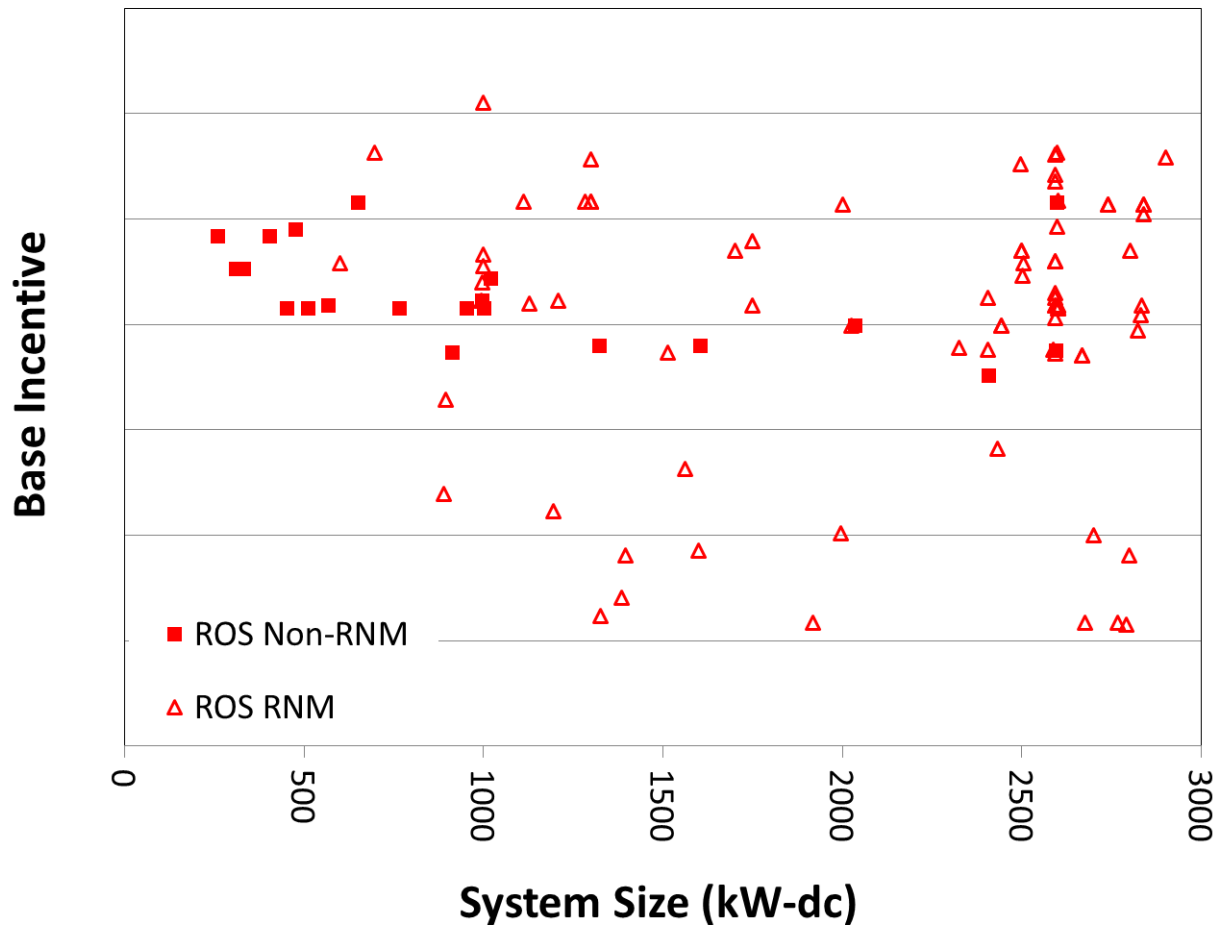


Remote Net Metering (PON 2956 Data)

Remote Net Metering

Base Incentive - ROS

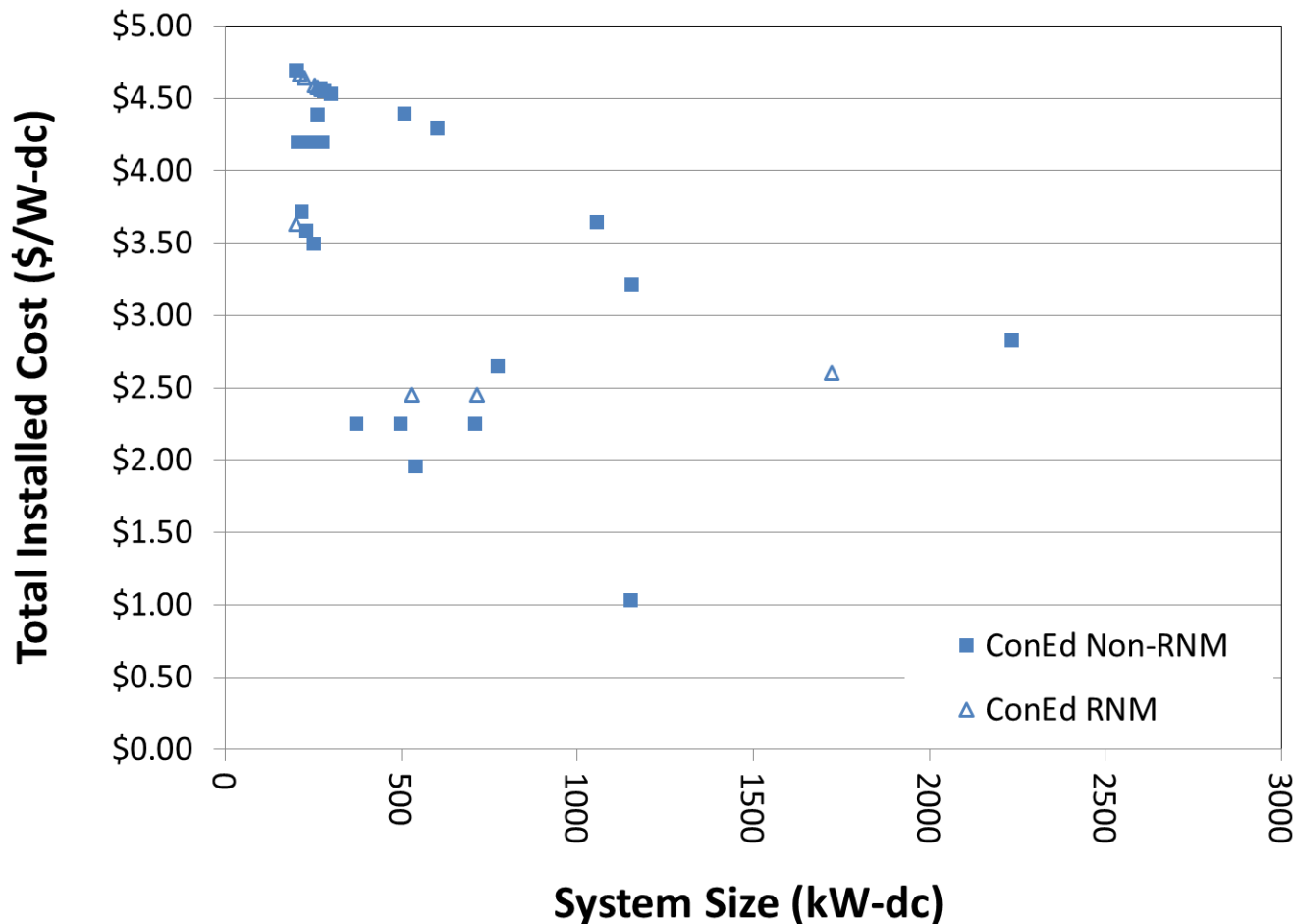
- ROS RNM systems exhibit a wide-spread in the base incentive
- Lowest ROS base incentives are all RNM systems



Remote Net Metering

Total Installed Cost - ConEd

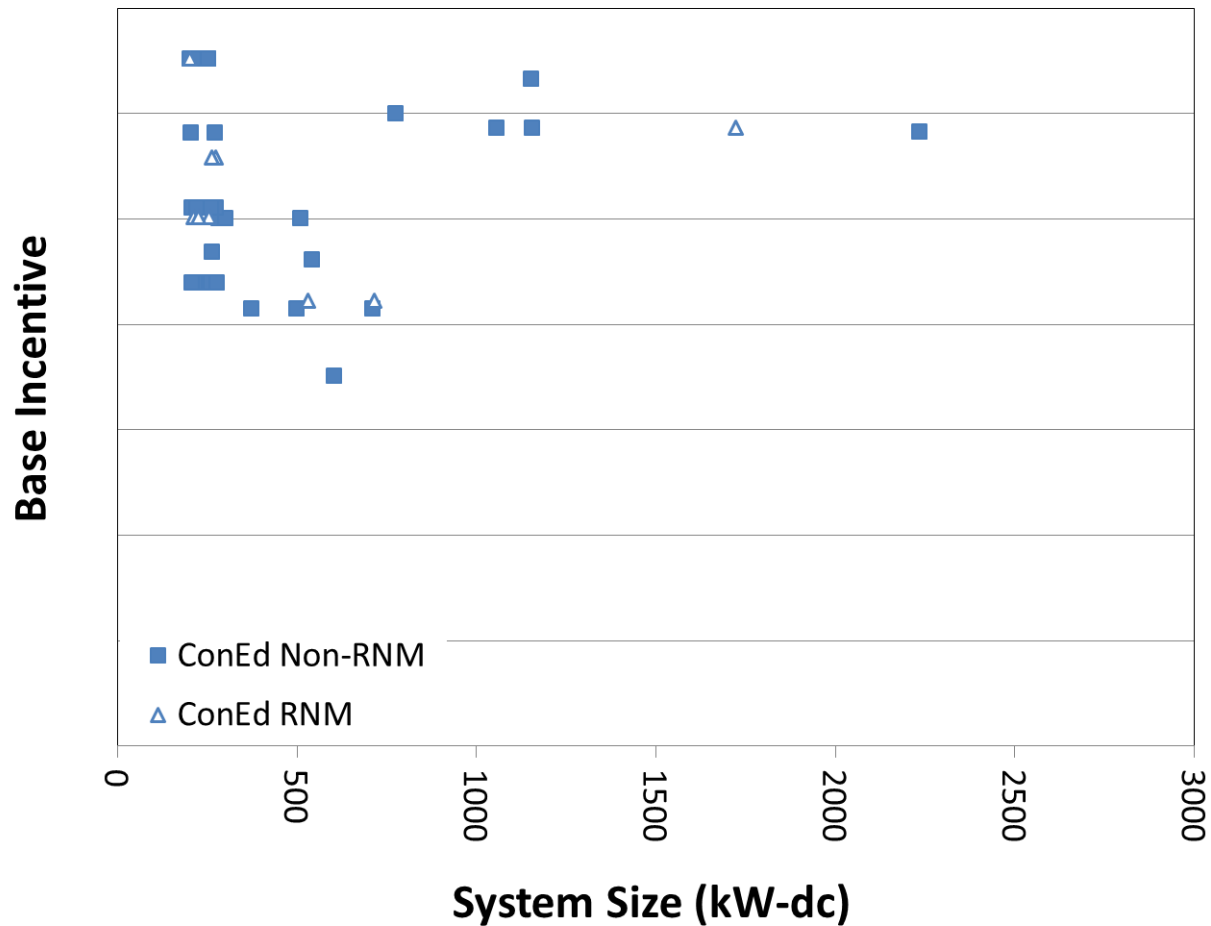
- 9 of 42 ConEd systems are RNM in PON 2956
- ConEd RNM and non-RNM systems exhibit similar total installed costs

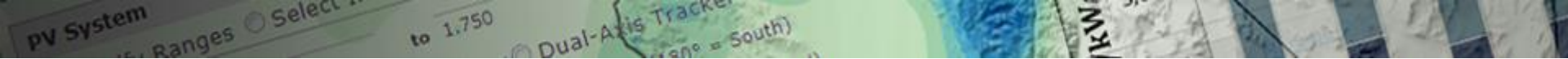


Remote Net Metering

Base Incentive - ConEd

- ConEd RNM and non-RNM systems exhibit similar base incentives



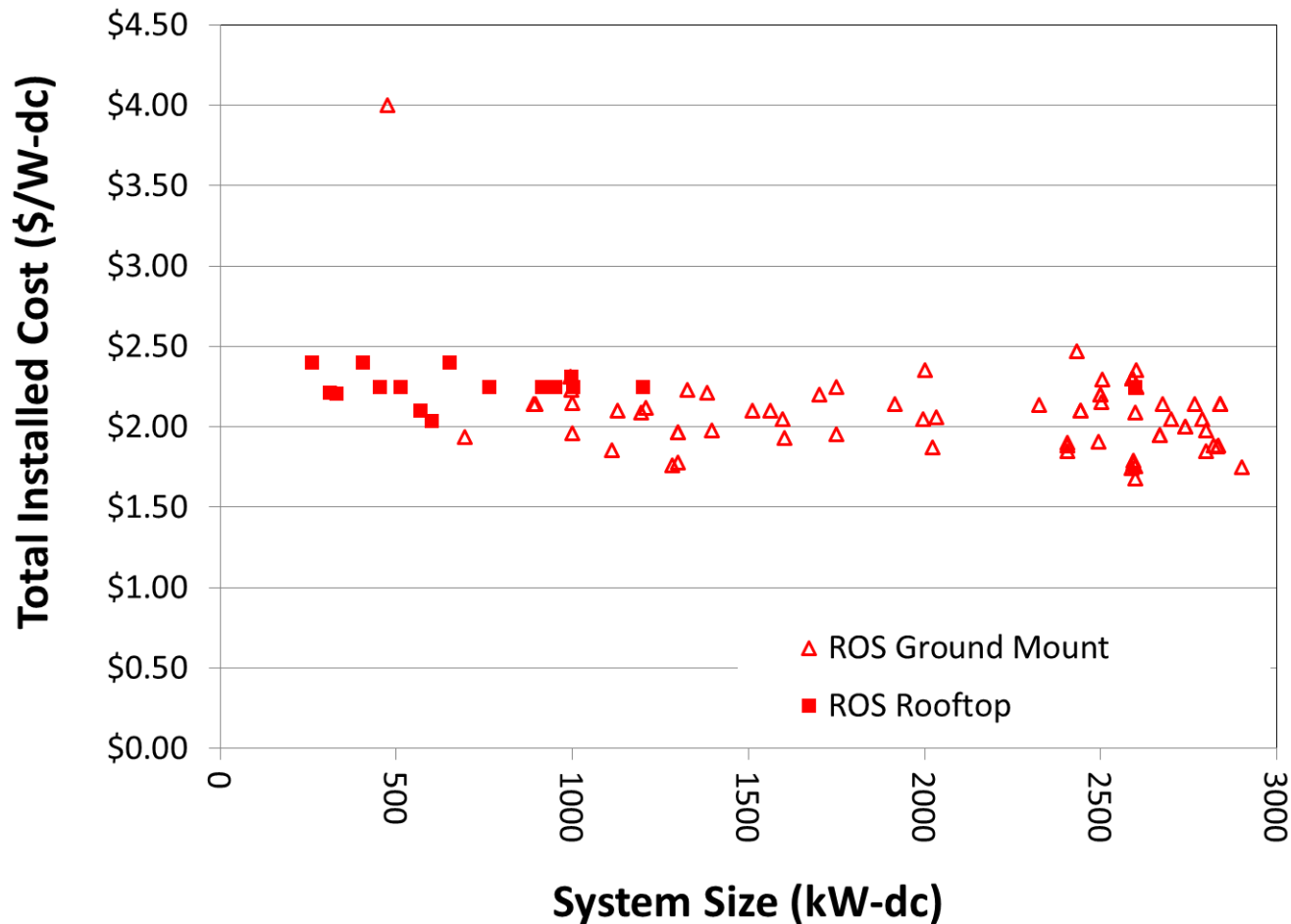


Rooftop vs. Ground Mount (PON 2956 Data)

Rooftop | Ground Mount

Total Installed Cost - ROS

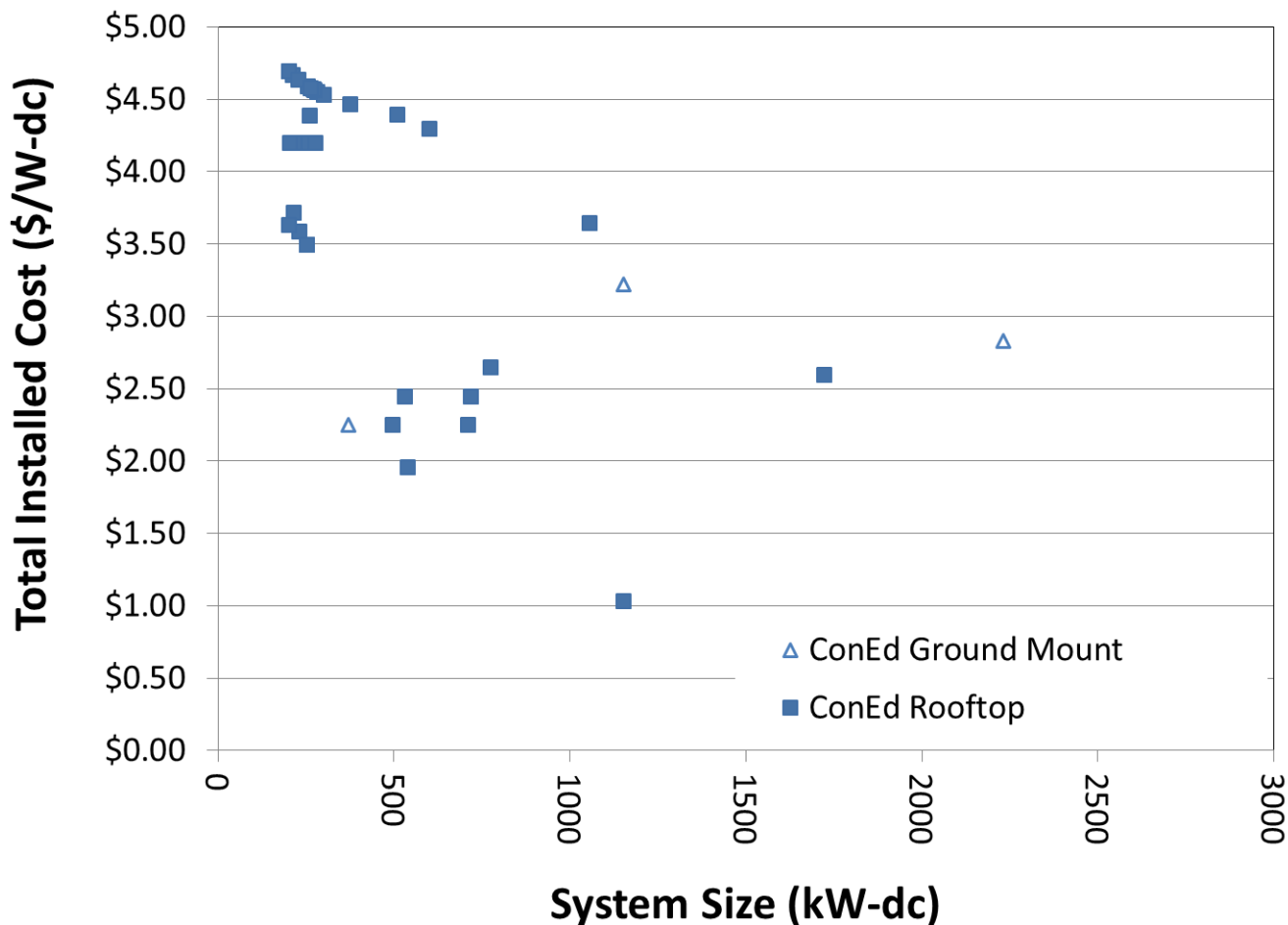
- ROS rooftop and ground-mounted systems exhibit similar total installed costs



Rooftop | Ground Mount

Total Installed Cost - ConEd

- 39 of 42 ConEd systems are rooftop (16 of 100 ROS systems were rooftop)





Conclusions

- Greater insight into expected PV capacity commitment rate (MW-dc/yr) is required from stakeholders to properly design MW Block structure
- Analysis of system differentiators reveals no dependency of total installed cost or base incentive on system size
- Greater insight into remote net metering in ROS region is needed from stakeholders
- Regional differences in total installed cost are not observed between rooftop and ground-mounted systems