

# Exceedance Analysis

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Energy Division

July 27, 2022

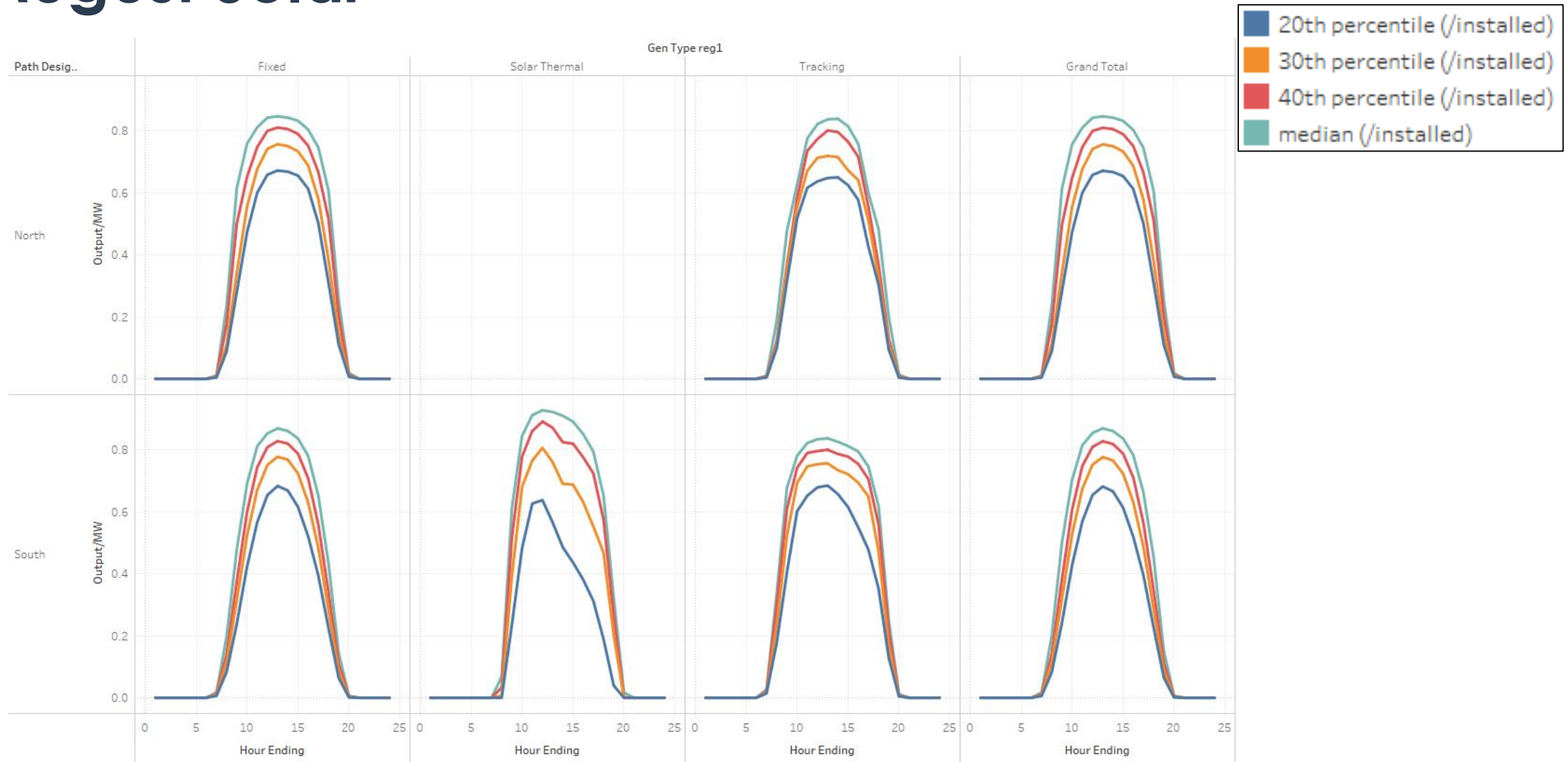


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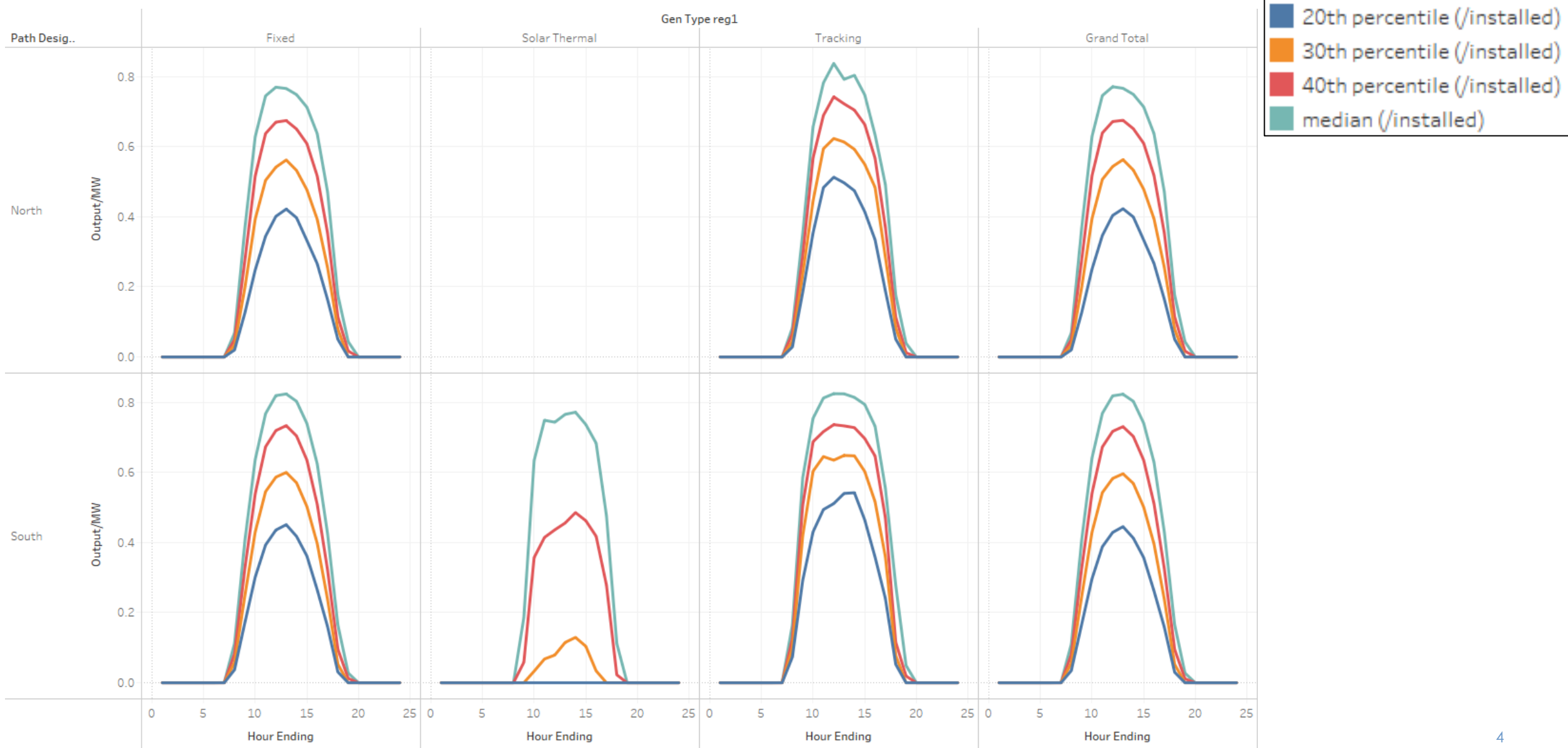
# Overview

- D.22-06-050 determined that an exceedance-based methodology would be used to determine solar and wind profiles under the 24-hour framework
- Directed parties to continue development to determine the appropriate exceedance level
- Energy Division Analysis
  - Used 5 years of CAISO settlement data for all wind and solar resources
  - Compared exceedance levels from settlement data to peak day solar/wind output
  - Regional Values (North/South/AZ-NM wind)
  - Solar broken out by fixed/tracking/solar thermal

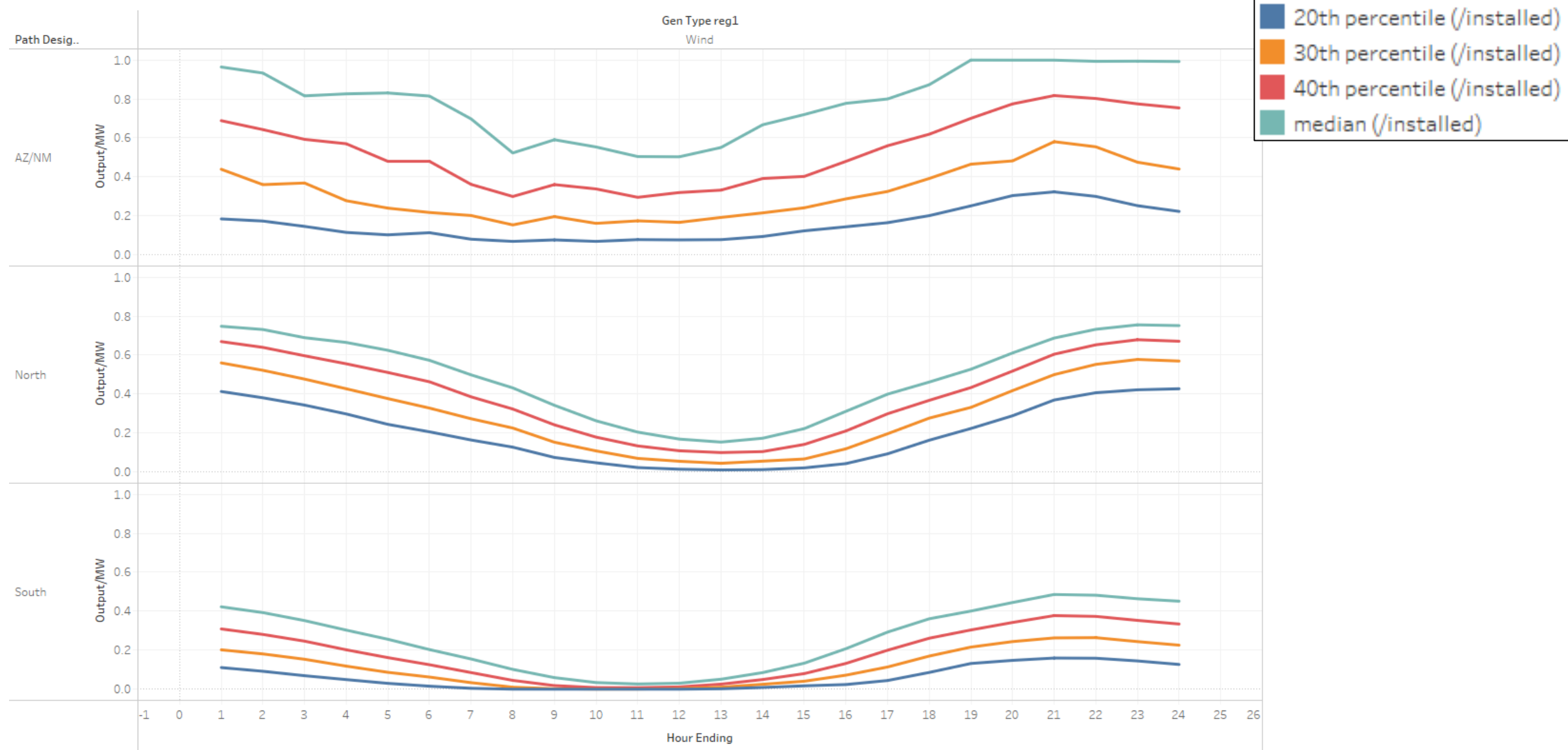
# August Solar



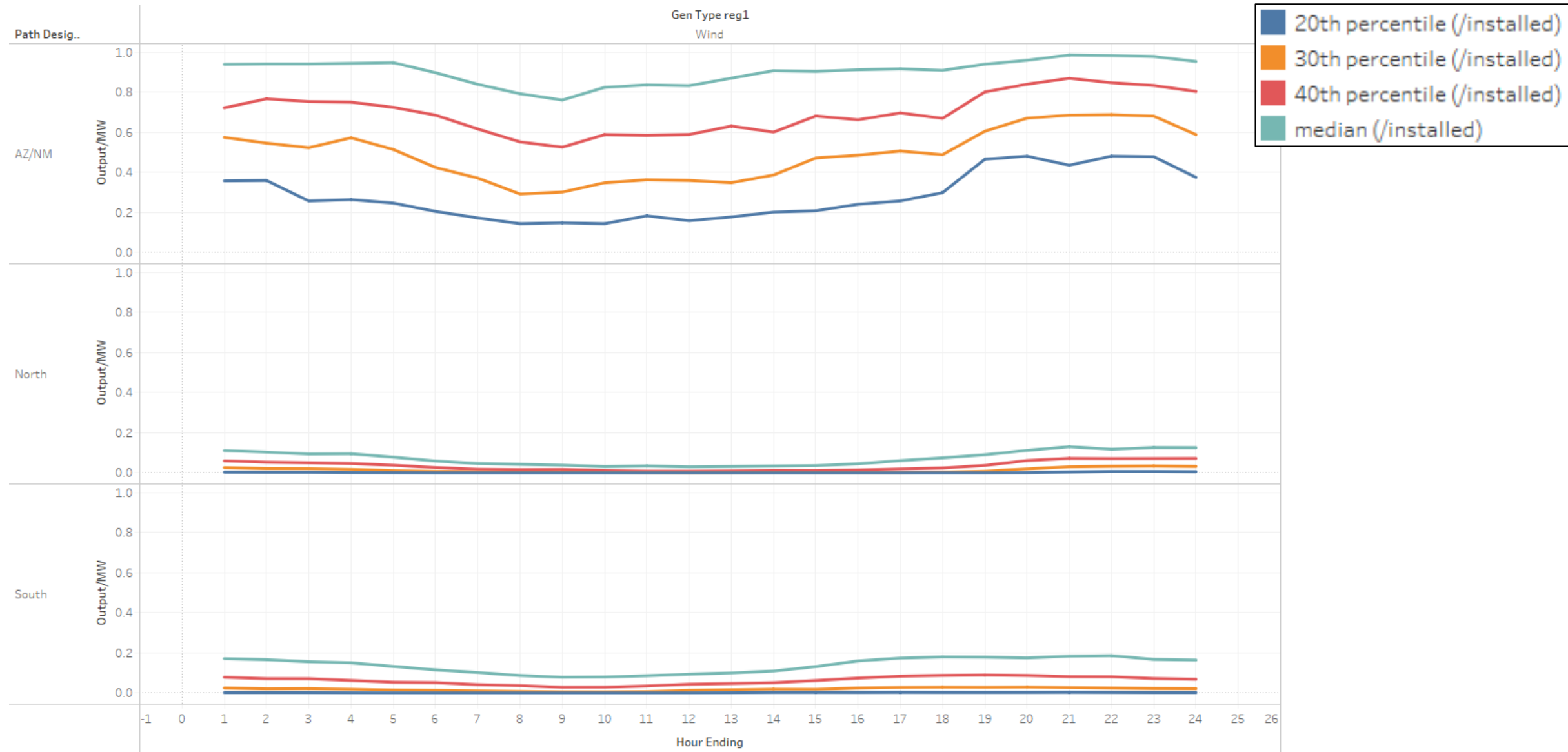
# March Solar



# August Wind

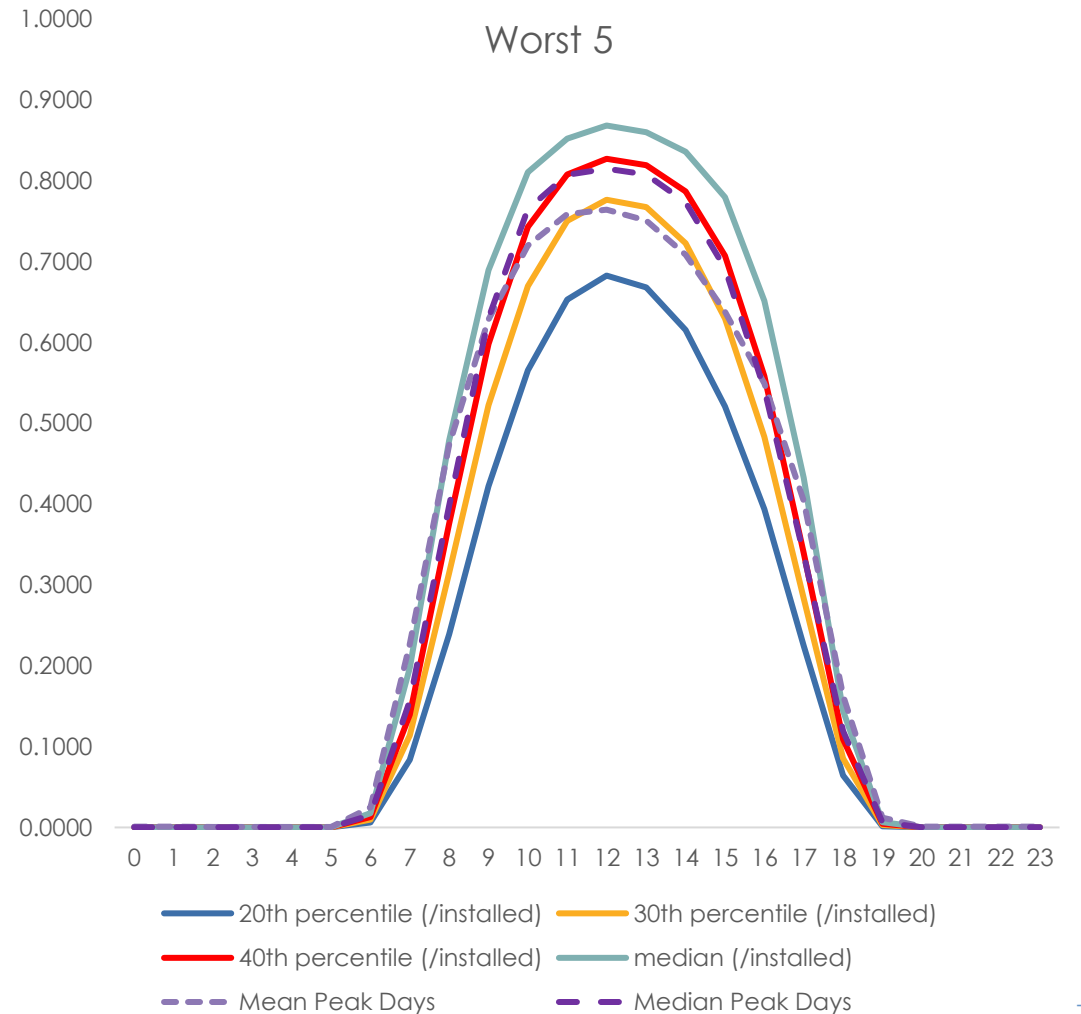
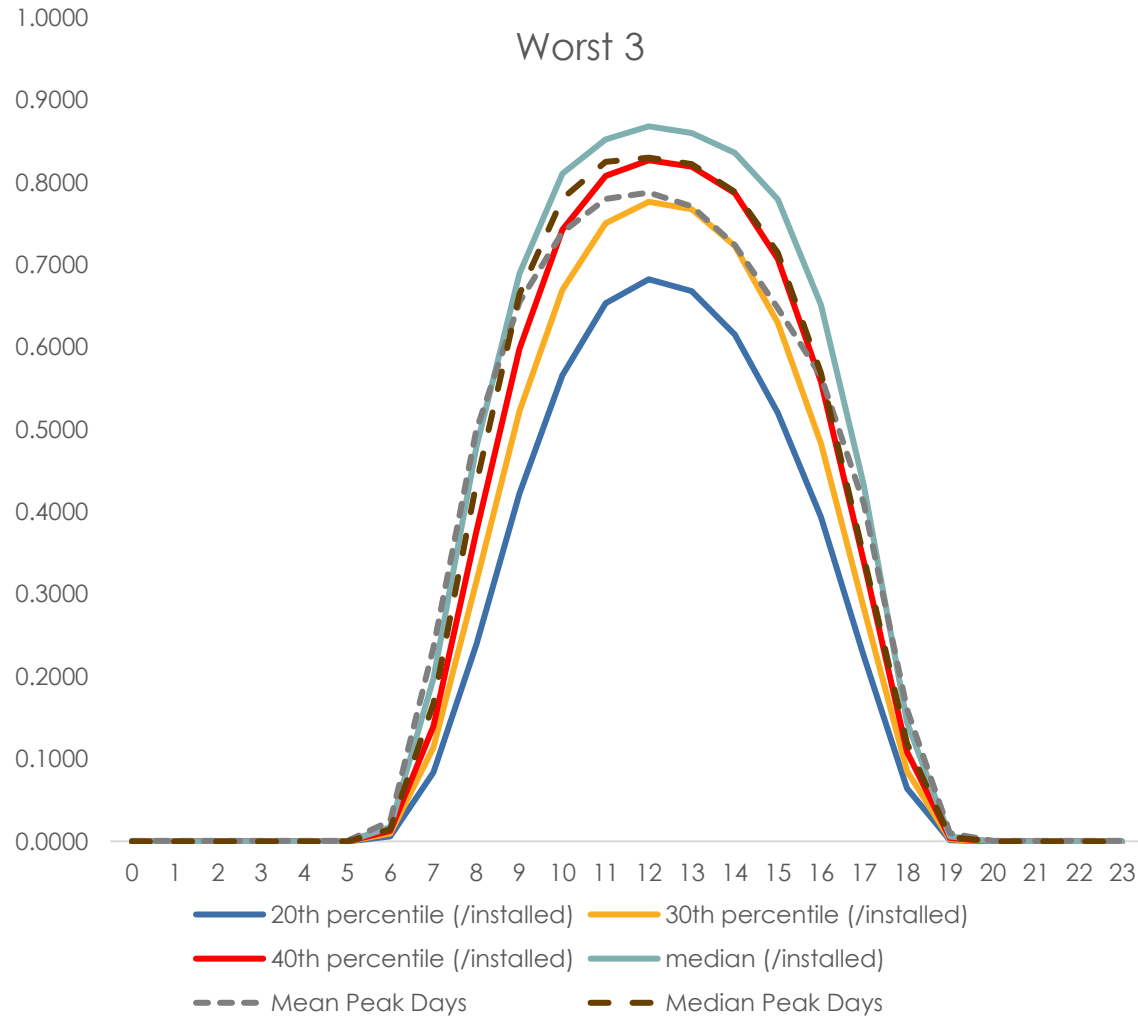


# March Wind



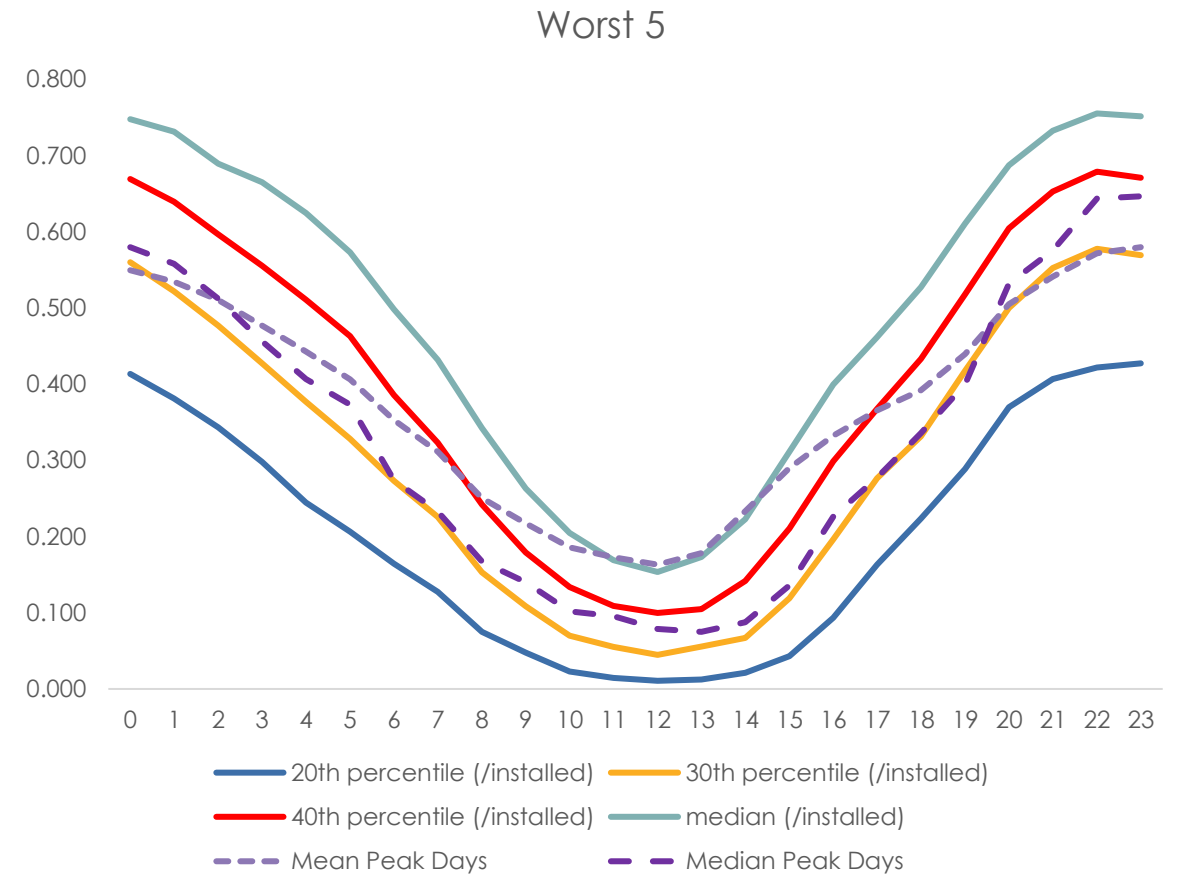
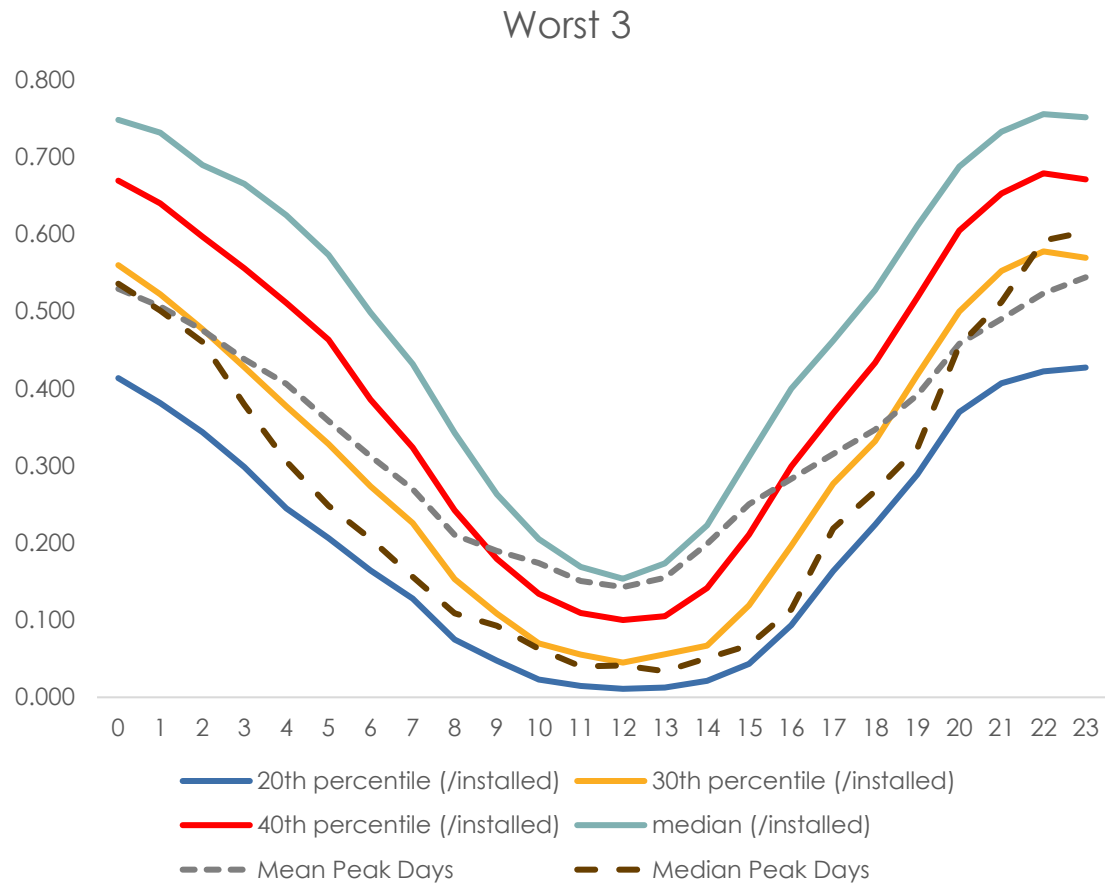
# Comparison to Peak Days

August South Fixed PV Exceedance vs. Mean and Median of Worst 3 and 5 Days



# Comparison to Peak Days

August North Wind Exceedance vs. Mean and Median of Worst 3 and 5 Days





# Questions

- Small difference between profiles on worst 1, 3, 5 days but difference between median and mean particularly for wind at peak hours.
  - What should be used to select the exceedance level?
- Should there be regional/technology profiles or individual values for each resource?
  - Individual values would be easy to calculate and would equitably assign value contribution by resource. However, they would increase complexity of the compliance showing materials.
- What other analysis would be useful? Next steps?



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