Individual Renewable Forecast Analysis

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Short Term Forecasting

Distributed Resources Subcommittee Meeting

July 1, 2025

Overview

- Determining the viability of using the forecast as an input into RTSCED
- Stakeholder request to review individual unit performance
- Analysis approach
  - Reviewed yearly ***individual*** solar/wind resource forecast and state-estimator performance
  - Averaged by time of day to help determine performance trend of each across the system

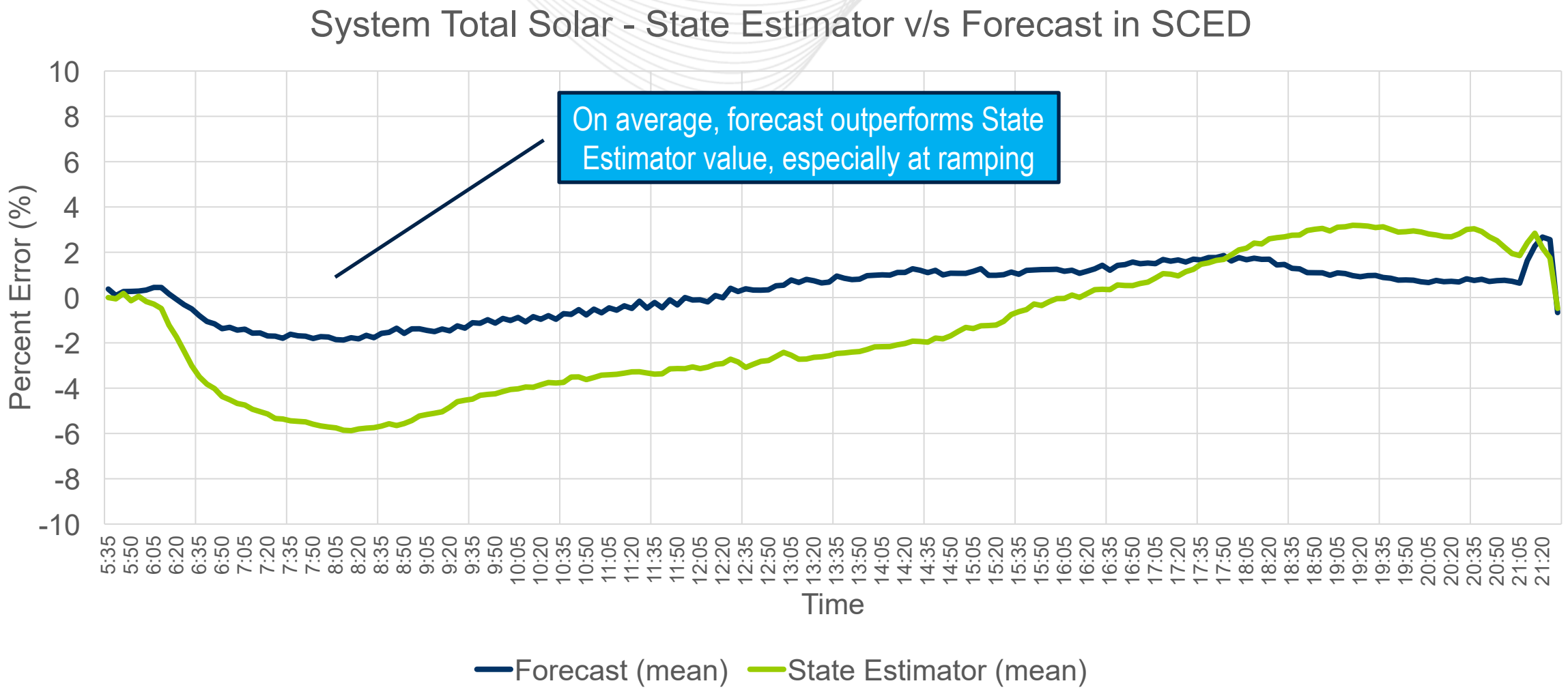
Methodology

- Extract each resource's forecast, state estimator, and actual telemetry for each SCED target time
- 5/1/2024 – 4/30/2025
- Calculate forecast/state estimator error for each SCED target time:

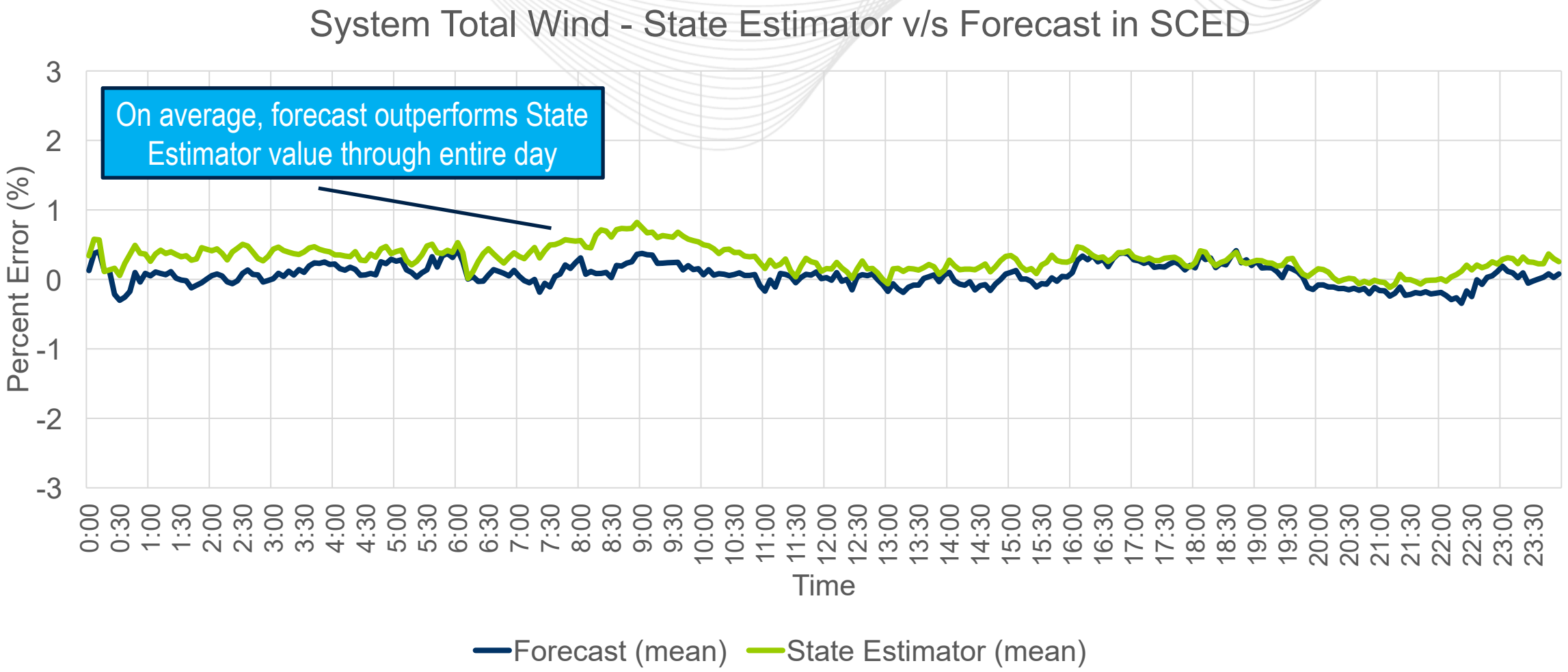
$$Mean\ Percent\ Error = \frac{\left(Prediction_t - Actual_{Target\ Time}\right)}{Installed\ Capacity}$$

- Aggregate each resource's dataset and averaged by time of day

Solar Performance in RTSCED by Time of Day



Wind Performance in RTSCED by Time of Day



Summary

- Individually across the RTO system, both solar and wind forecast perform better than state-estimator solution in SCED for the respective target time

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Individual Renewable Forecast Analysis

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