

TEP Integrated Resource Plan Load Forecast



Public Meeting
Greg Strang, Lead Forecast Analyst

May 20, 2020

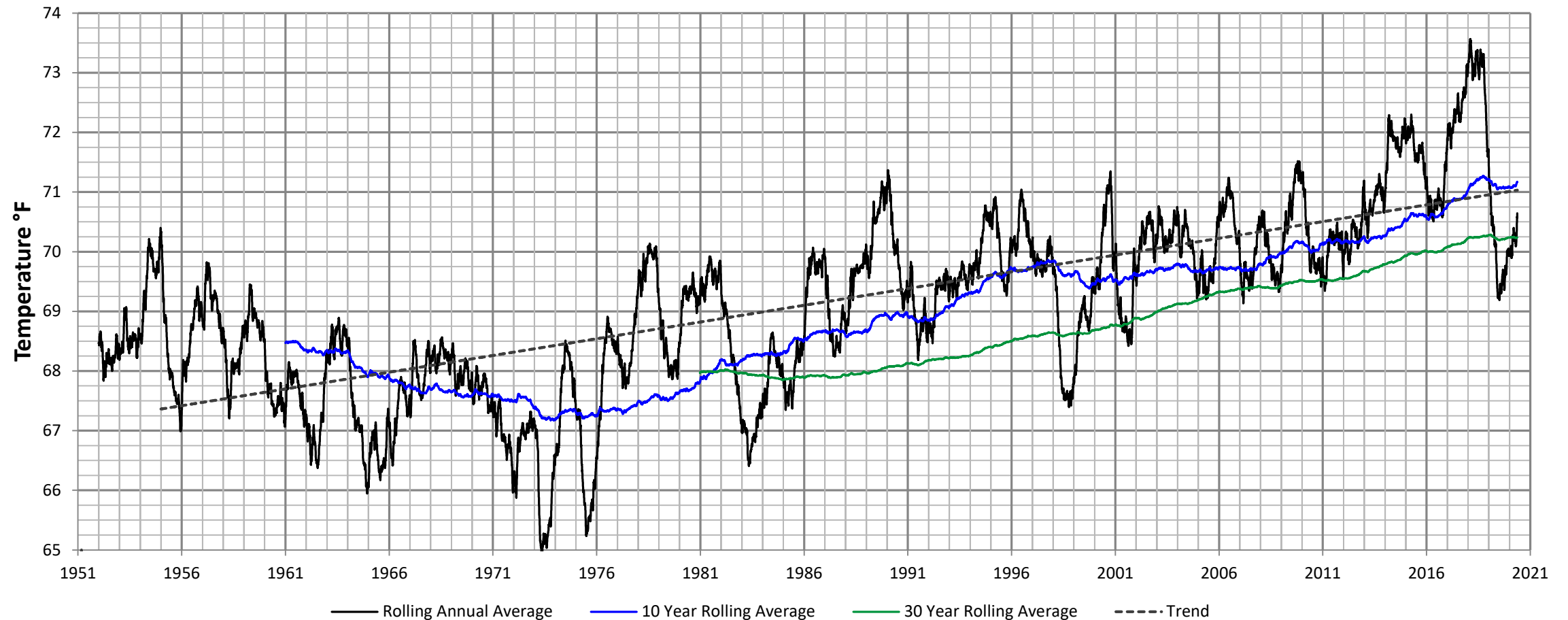


Forecast Overview

- Customer, energy, and peak forecast
- The forecast period runs from 2020-2035
- Wherever possible, the forecast relies on sound statistical practice and shuns personal judgments
- Bottom up forecast
- Forecast accounts for Weather, Economic, and Seasonal variables
- Projection made in early December



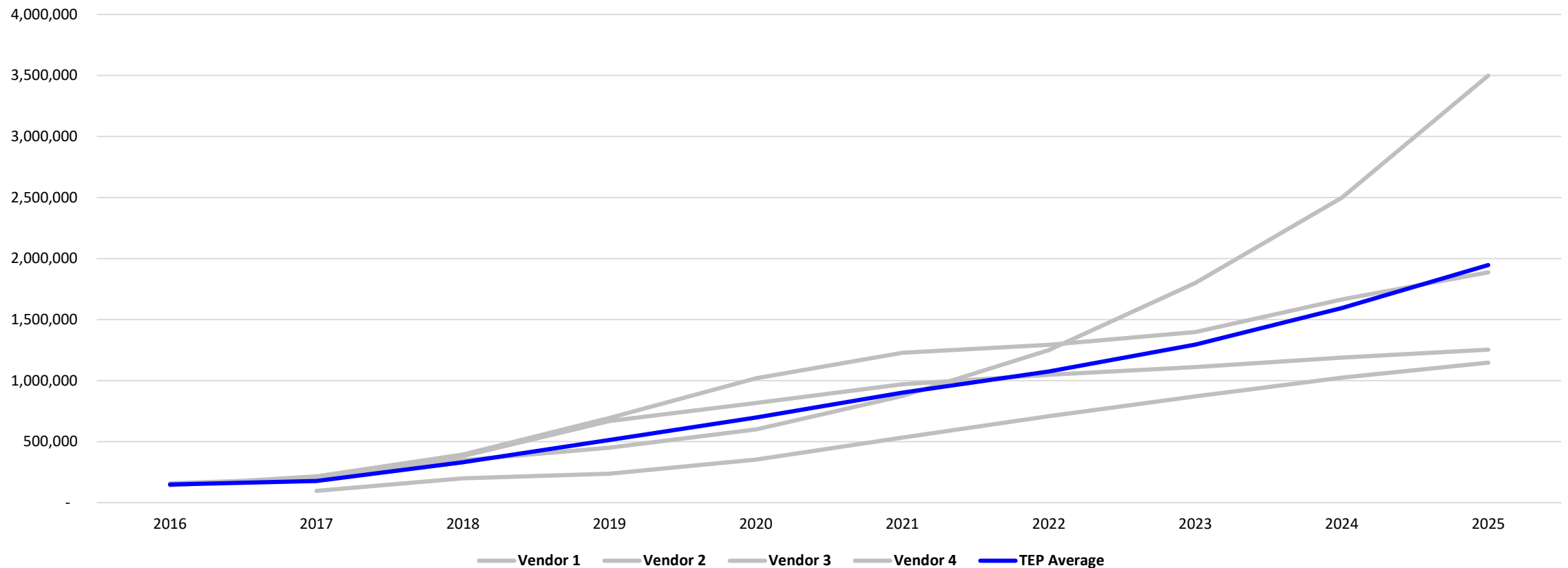
Changes From Prior IRP, Weather Trend Adjustment





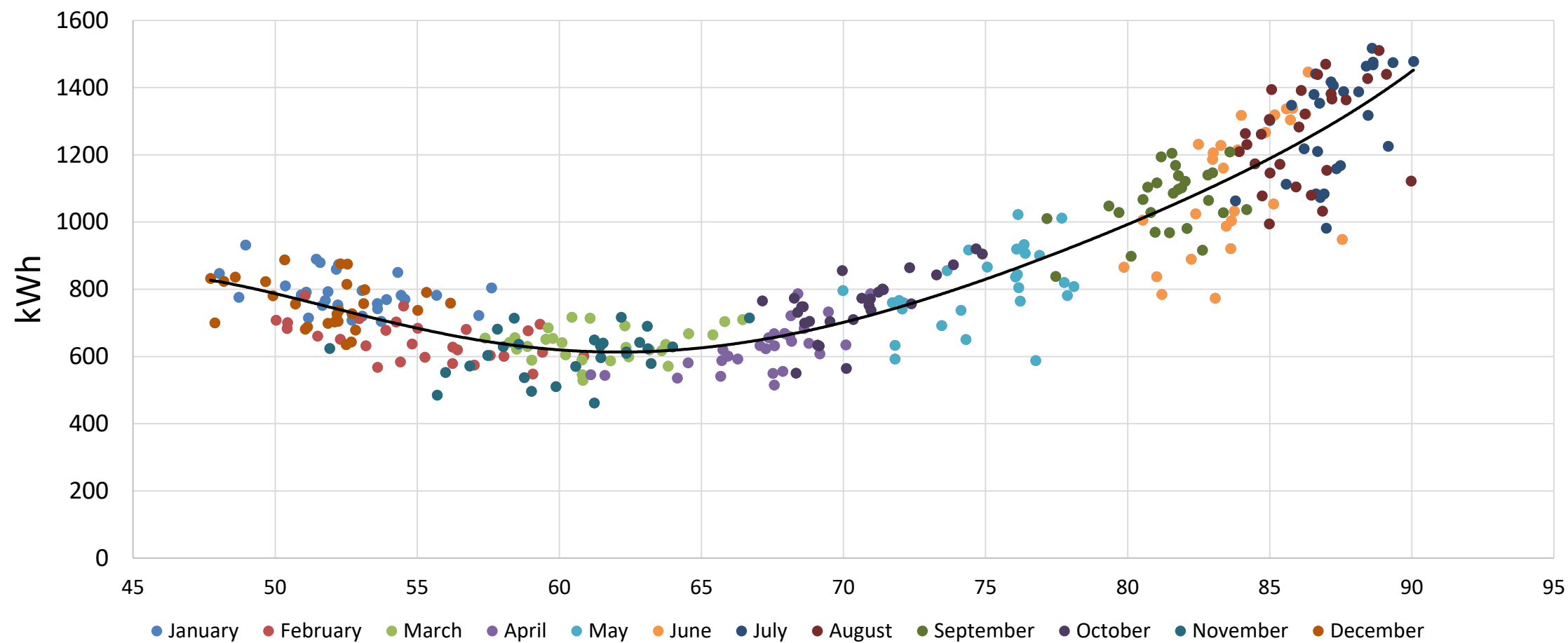
Changes from Prior IRP, Electric Vehicles

US Total New Electric Vehicle Sales





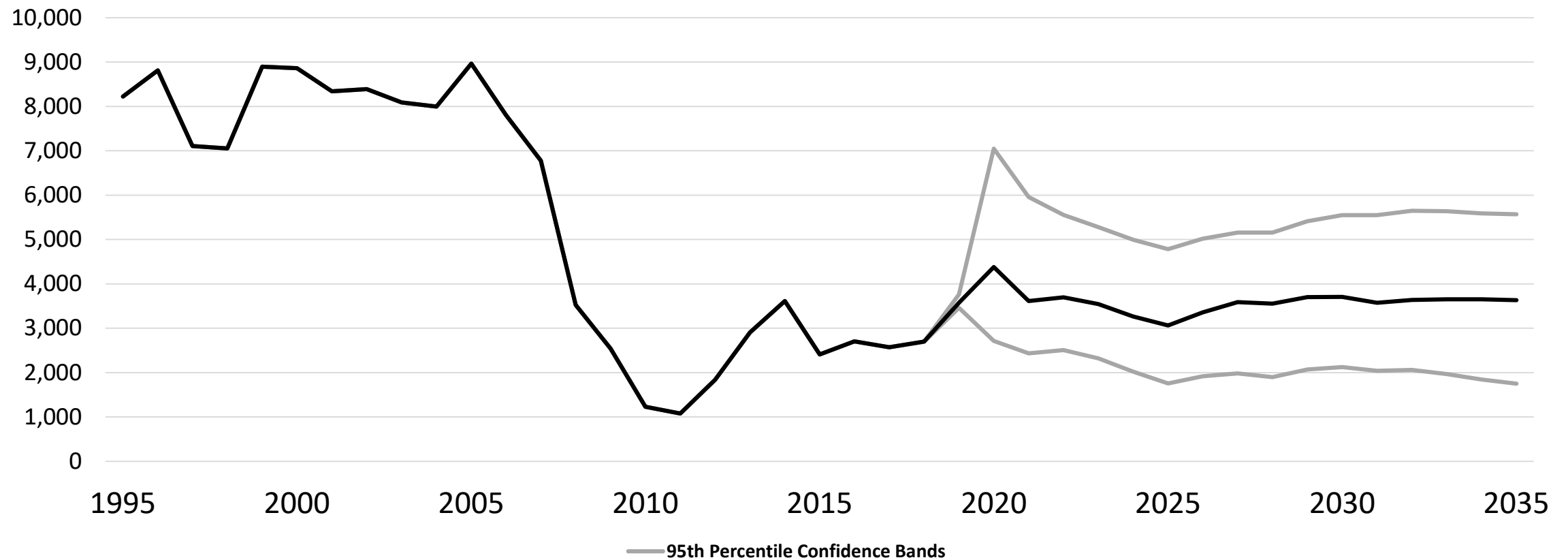
Residential Use Per Customer by Temperature





TEP Residential Customer Growth

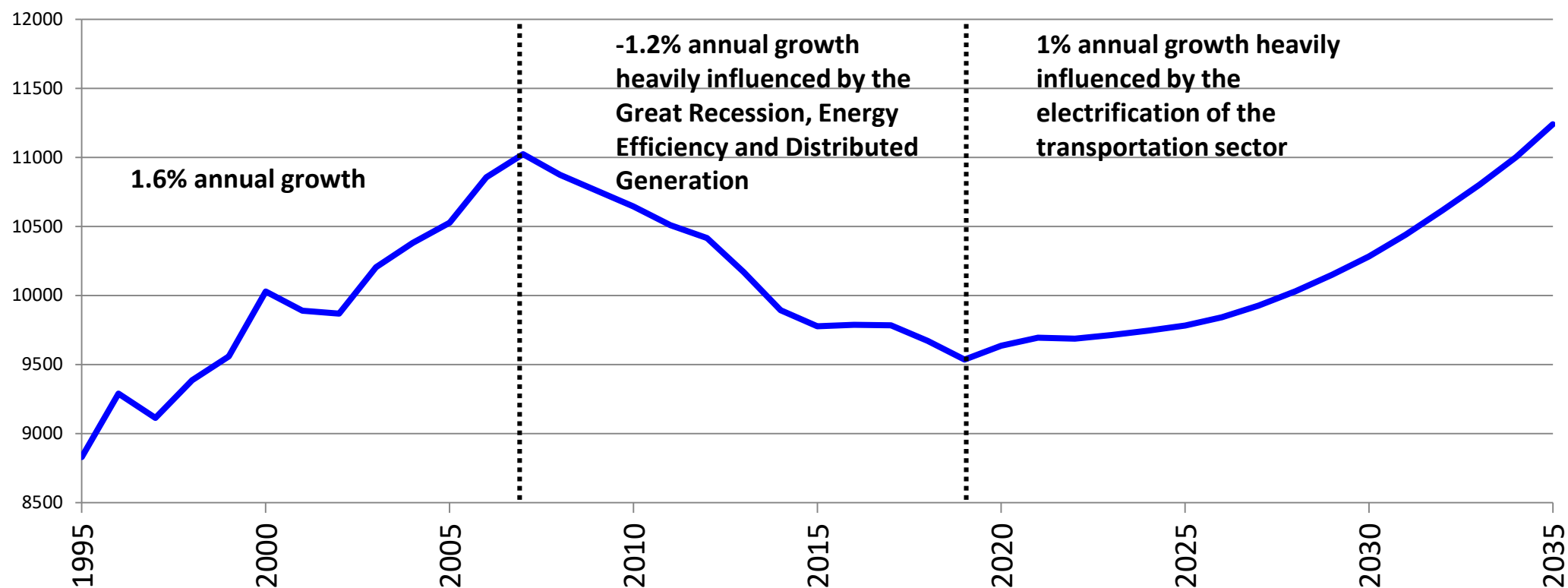
Year over Year Change in Customers TEP





TEP Residential Use Per Customer Forecast

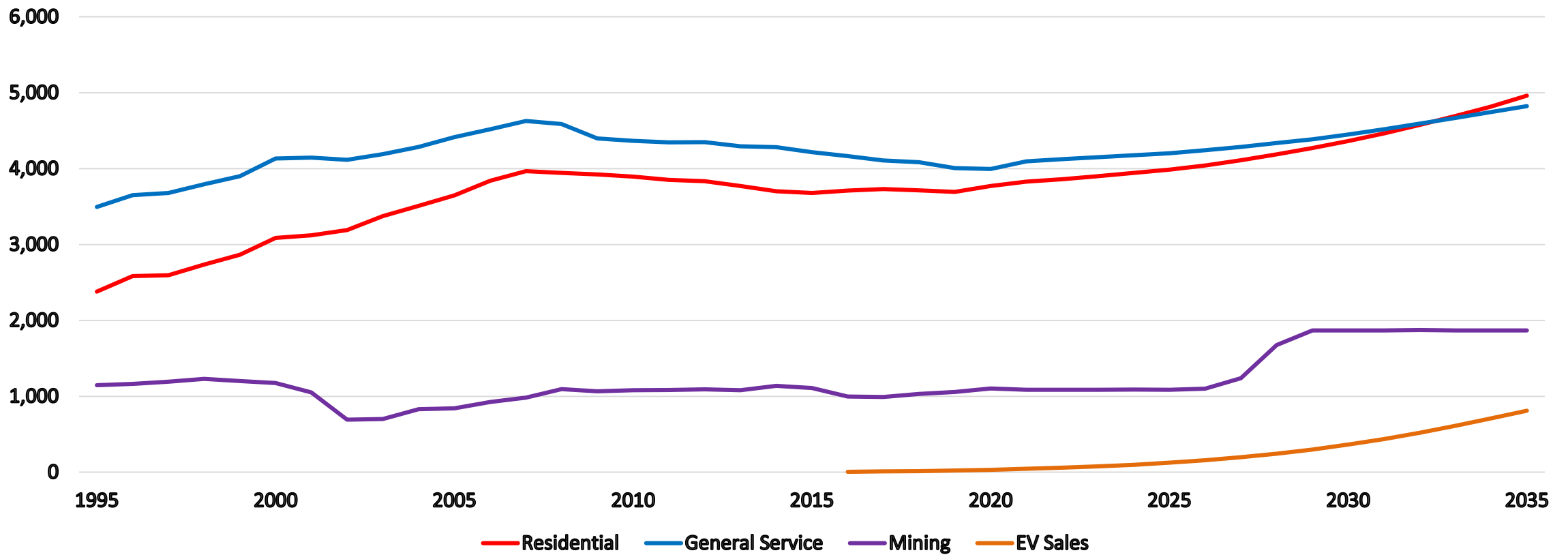
Weather Normalized Annual Use Per Customer (kWh)





TEP Total Sales

Weather Normalized TEP Retail Sales by Category (GWh)





TEP Peak Forecast



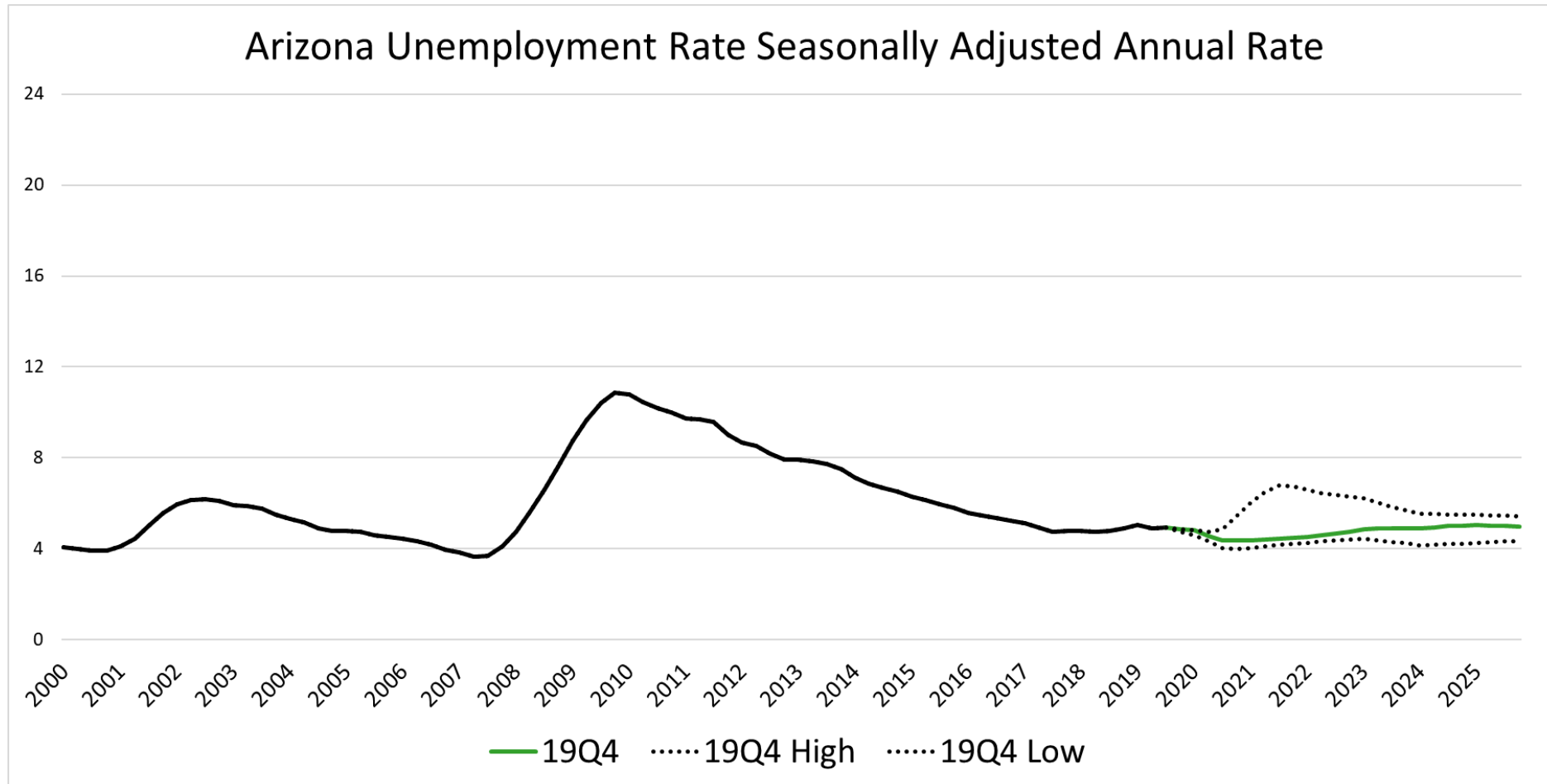


Historical Forecast Performance

- “Prediction is very difficult, especially about the future.”
--Danish Proverb
- The Company evaluates forecast performance on a monthly basis
- Through this process we have identified what are the causes of the majority of forecast error
 - In the medium term, weather drives the forecast variance
 - In the long term, errors in economic forecasts drive the variance

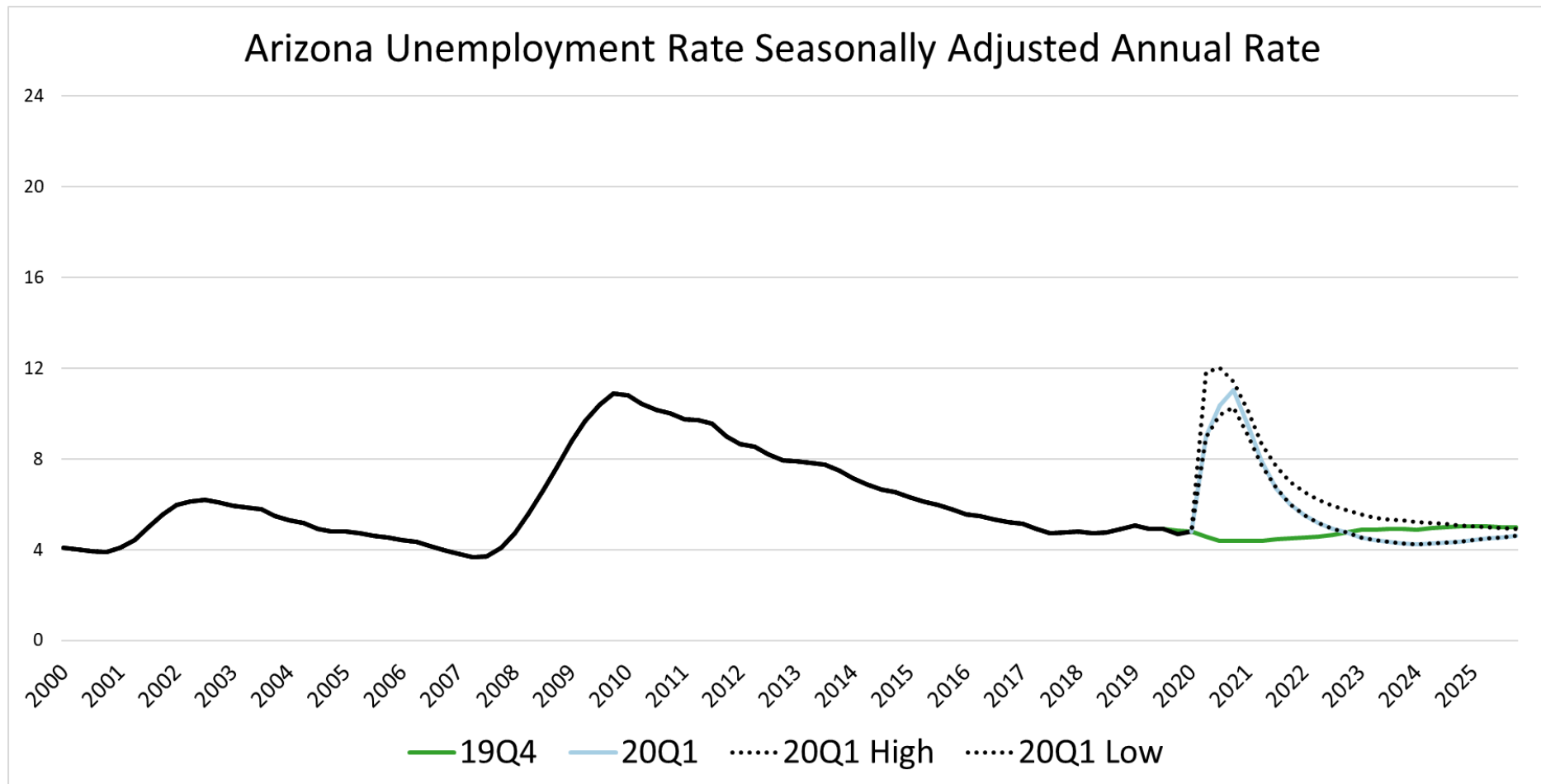


IRP Forecast Projection





First Economic Re-Projections





Most Recent Economic Projections

