



2022 Preliminary PJM Load Forecast

Planning Committee
December 14, 2021

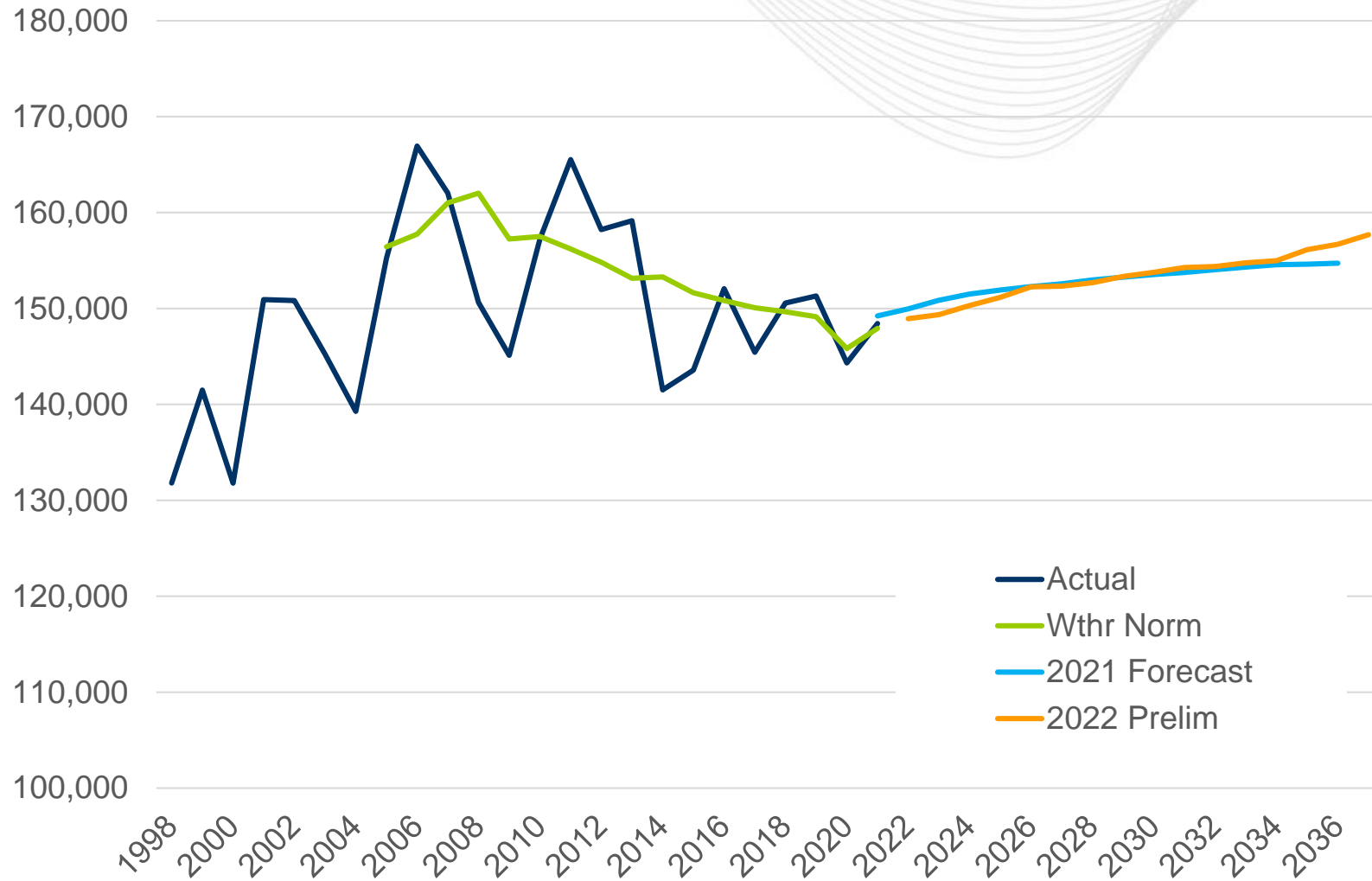
Tom Falin
Director
Resource Adequacy Planning

- Published annually in late December after LAS and PC review
- Procedure documented in Manual 19
- Includes peak demand and energy forecasts for all zones, Load Deliverability Areas, and the RTO over a 15 year forecast period
- Uses of the long-term load forecast
 - RPM
 - RTEP
 - Market Efficiency Planning
 - Seasonal assessments
 - Submitted to NERC, FERC and various state commissions
 - PJM budgeting purposes

- Enhancements to sector models to better capture granularity, such as industrial composition of individual zones.
- Improvements to better capture weather response in the summer and winter seasons.

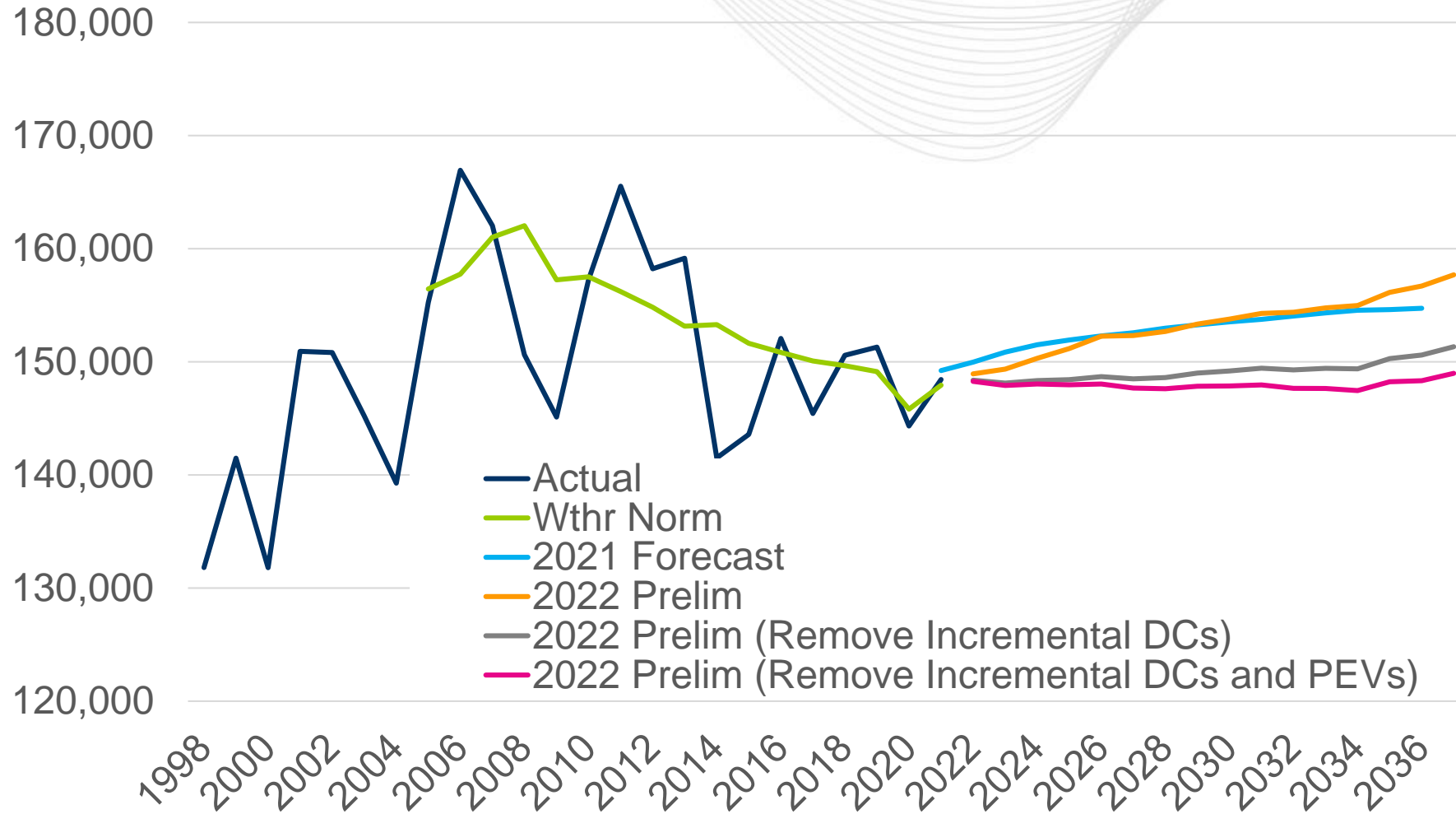
- Estimation Period: January 2012 through August 2021
- Weather Simulation: 1994 to 2020 (351 scenarios)
- Sector Models (1998-2020 Annual Data from EIA 861)
 - End Use Data: Based on Itron's 2021 release
 - Economics: September 2021 vintage from Moody's Analytics
- IHS BtM Solar/Battery Forecast (zonal & peak allocation by PJM)
 - Production estimates by UL
- Plug-in Electric Vehicles (PEVs) – cars and light trucks
 - State targets and EIA 2021 AEO sales for non-target states
- Forecast Adjustments – APS, ATSI, COMED, Dominion

Summer Forecast Comparison 2021 vs 2022



- 15-year Annualized Growth Rate
 - 2021 LF: 0.2%
 - 2022 Prelim: 0.4%
- Select year comparisons (2022 Prelim vs 2021LF)
 - 2025: Down 0.5%
 - 2027: Down 0.1%
 - 2036: Up 1.5%

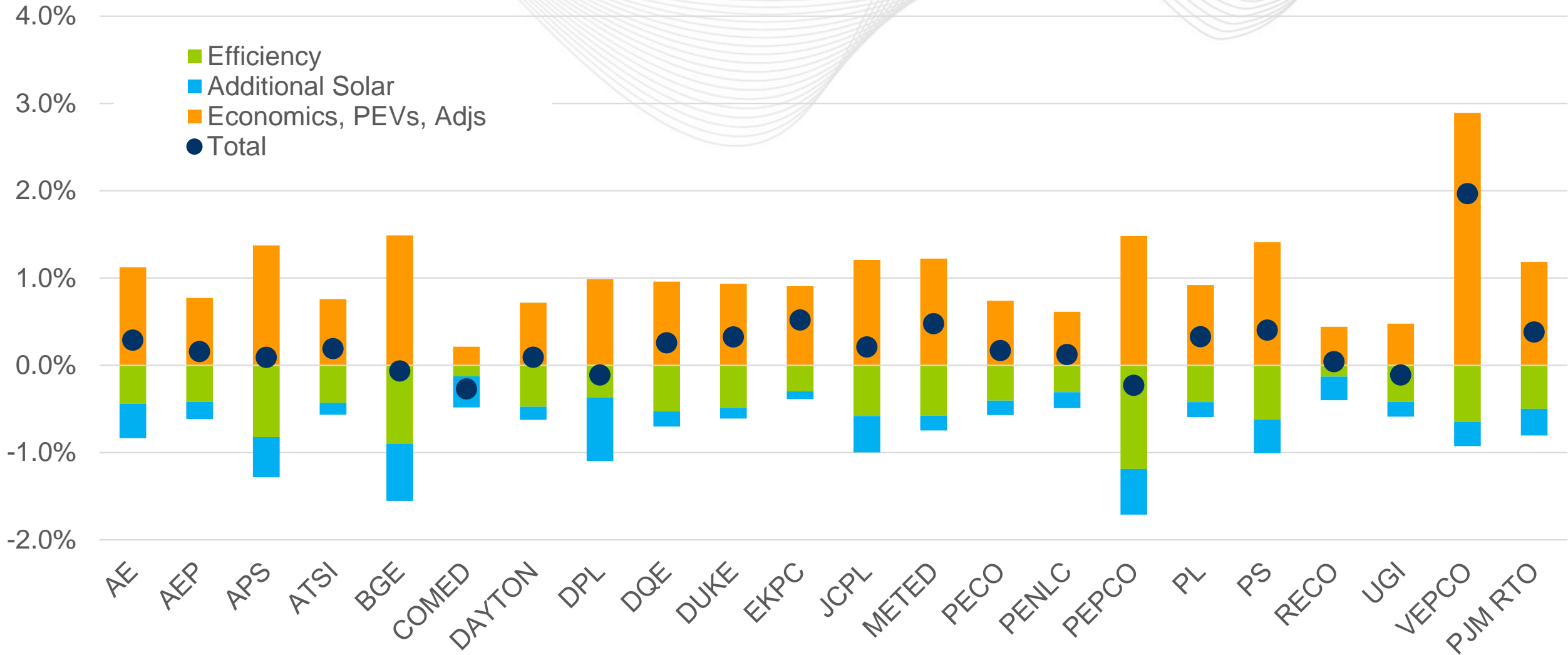
Impact of Incremental Data Centers and PEVs



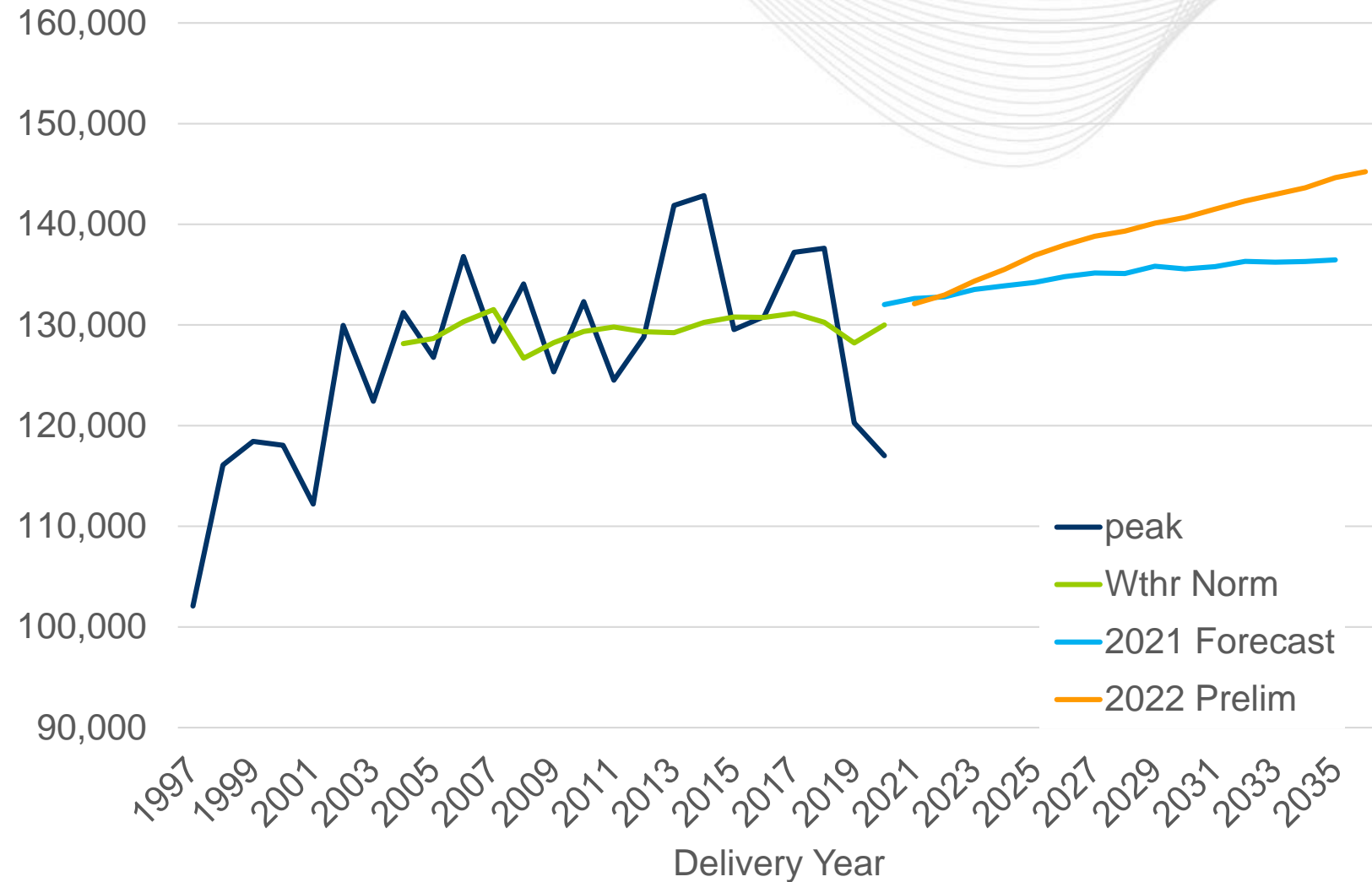
- Without new data centers and new PEVs, 15-year average annual growth would be a scant 0.05%.
- Additional PEVs add 0.1% per year to growth.
- **Additional data centers add 0.25% per year to growth.**



Summer Peak Average Annual Growth (2022-2037)



Winter Forecast Comparison 2021 vs 2022



- 15-year Annualized Growth Rate
 - 2021 LF: 0.2%
 - 2022 Prelim: 0.6%
- Select year comparisons (2022 Prelim vs 2021LF)
 - 2025: Up 2%
 - 2027: Up 2.7%
 - 2035: Up 6%

- Transition to hourly framework
- Continue development on forecast assumptions
 - Electric Vehicles
 - Storage
- Review/implement consultant recommendations
 - Modeled forecast (e.g. sector models, weather sensitivity)
 - EVs, Solar/Storage, Load Management

- Review with Planning Committee (12/14/2021)
- Publish final report in late December
 - Accompanying spreadsheets
 - Unrestricted Loads
 - Model Details Spreadsheets
 - End-Use Indices
 - Weather Variables
 - Statistical Appendix
 - Load Report Supplement

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