



2024 Preliminary PJM Load Forecast

Planning Committee

December 5, 2023

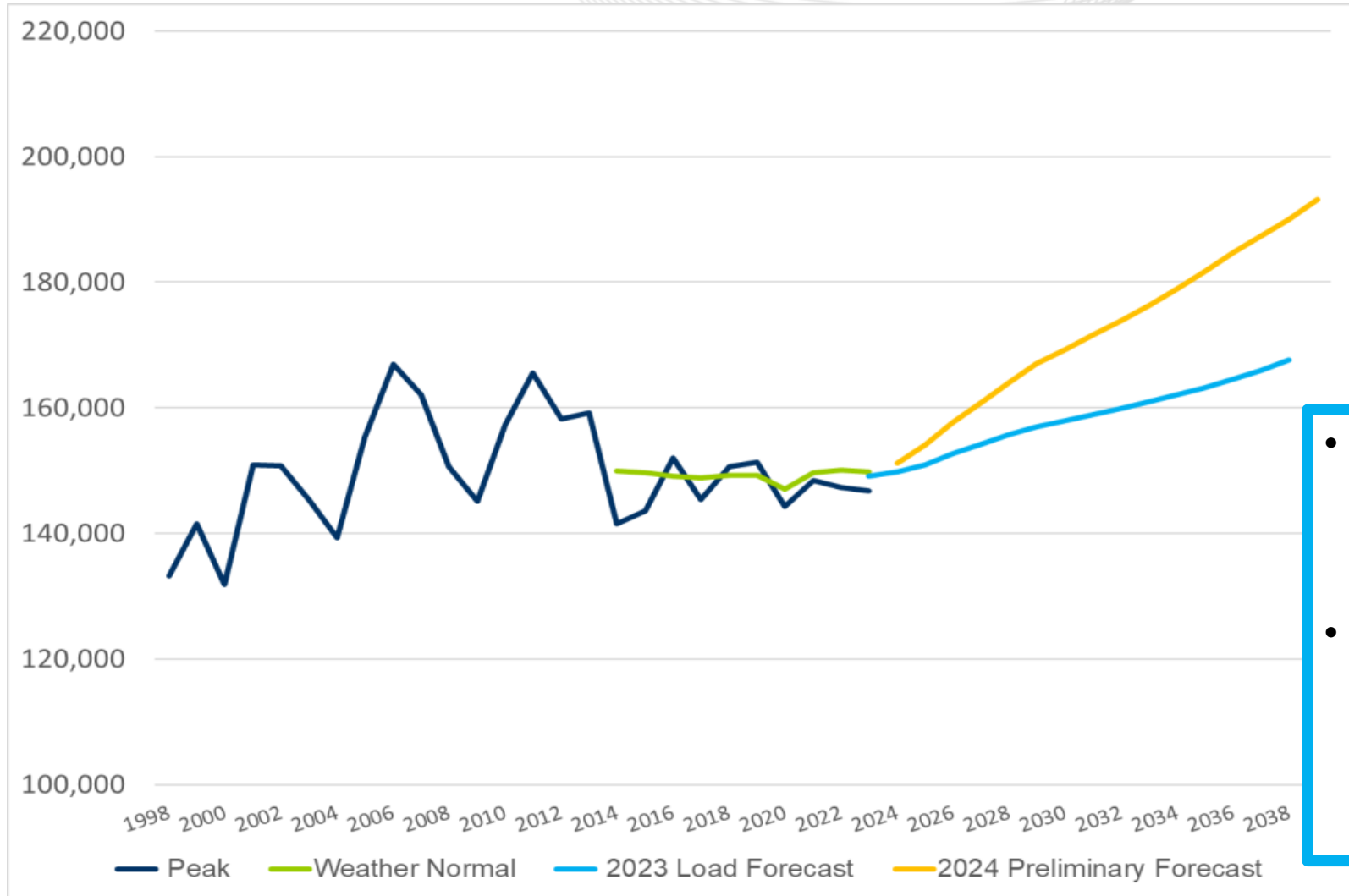
Molly Mooney

Resource Adequacy Planning

- Acquired and incorporated electric vehicle forecast from vendor S&P Global.
 - Light/Medium/Heavy Duty
- Added HD3 to capture more extreme winter weather
 - HD3 is an additional cold weather variable that allows the model to better calibrate at colder temperatures.
 - Model testing in Winter Storm Elliott showed some under-fit in some zones.

- Estimation Period: January 2014 through August 2023
- Weather Simulation: 1994 to 2022 (377 scenarios)
- Sector Models (2013-2022 Monthly from EIA 861 and EIA 861m)
 - End Use Data: Based on Itron's 2023 release
 - NJ Executive Order on Electrification
 - Economics: September 2023 vintage from Moody's Analytics
- IHS (S&P Global) Solar/Battery Forecast (zonal & peak allocation by PJM)
 - Production estimates by UL
- S&P Global - Plug-in Electric Vehicles (PEVs)
- Forecast Adjustments – Data Centers (AEP, APS, Dominion) Data Centers/Port Electrification (PS); Peak Shaving Adjustment (EKPC)

Summer Forecast Comparison 2023 vs 2024

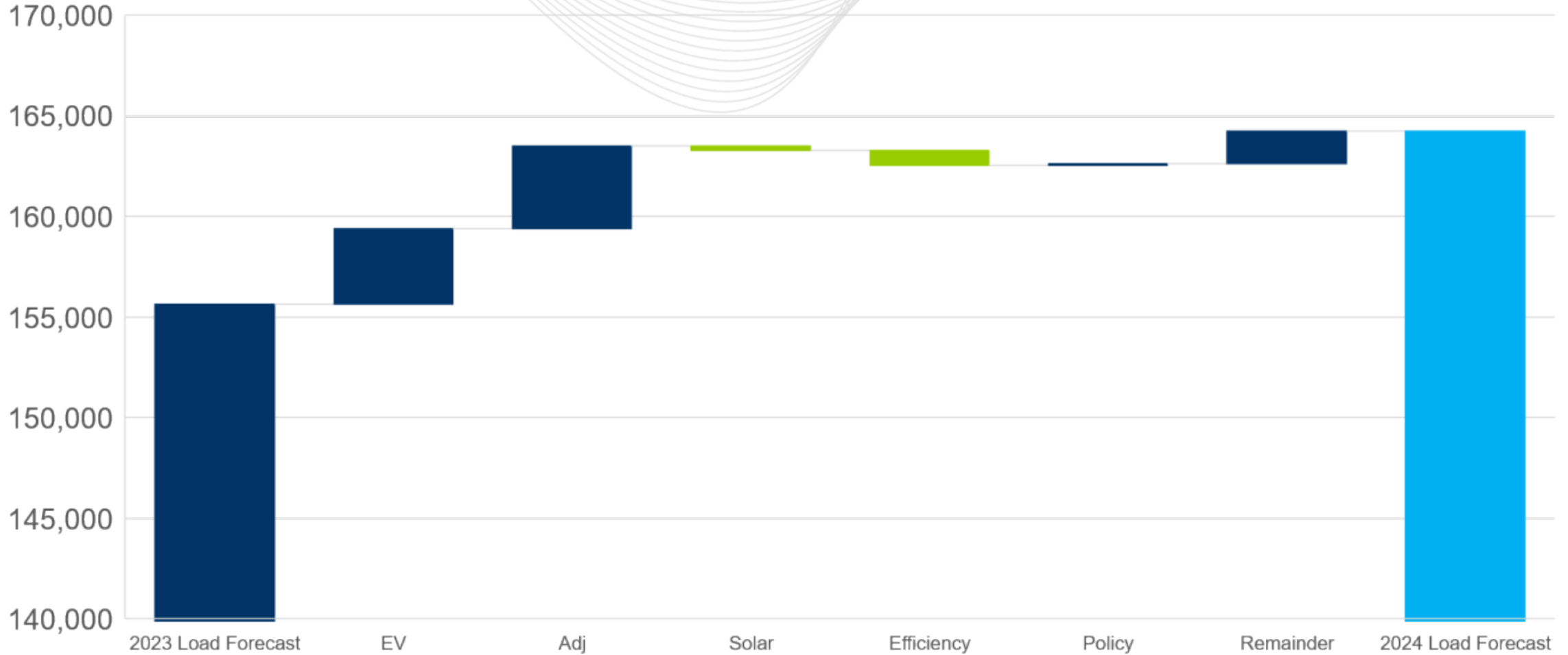


- 15-year Annualized Growth Rate
 - 2023 Forecast: 0.8%
 - Prelim 2024: 1.6%

- Select year comparisons (Prelim 2024 vs 2023 Forecast)
 - 2027: +4.4% (~6,600 MW)
 - 2029: +6.6% (~10,000 MW)
 - 2038: +13.9% (~22,400 MW)



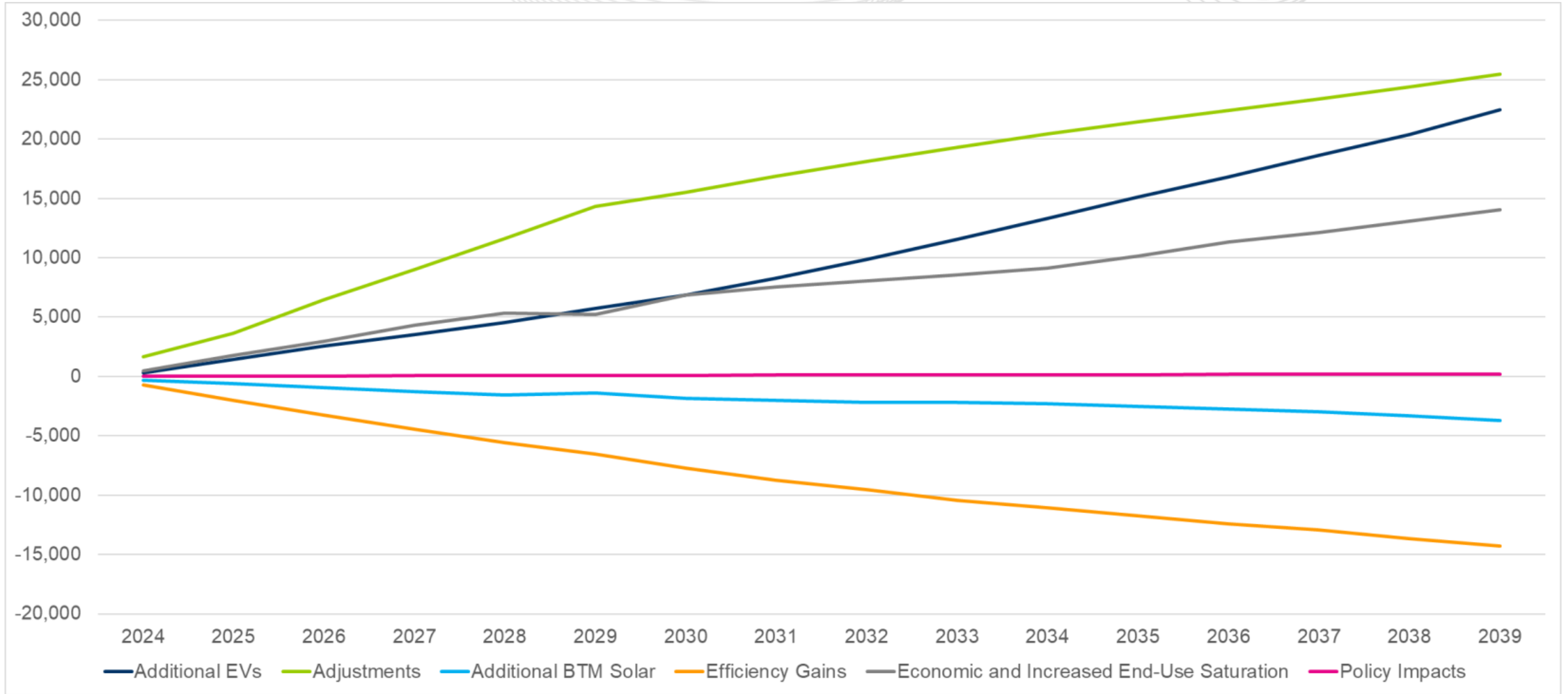
Summer 2028 Forecast Waterfall Comparison



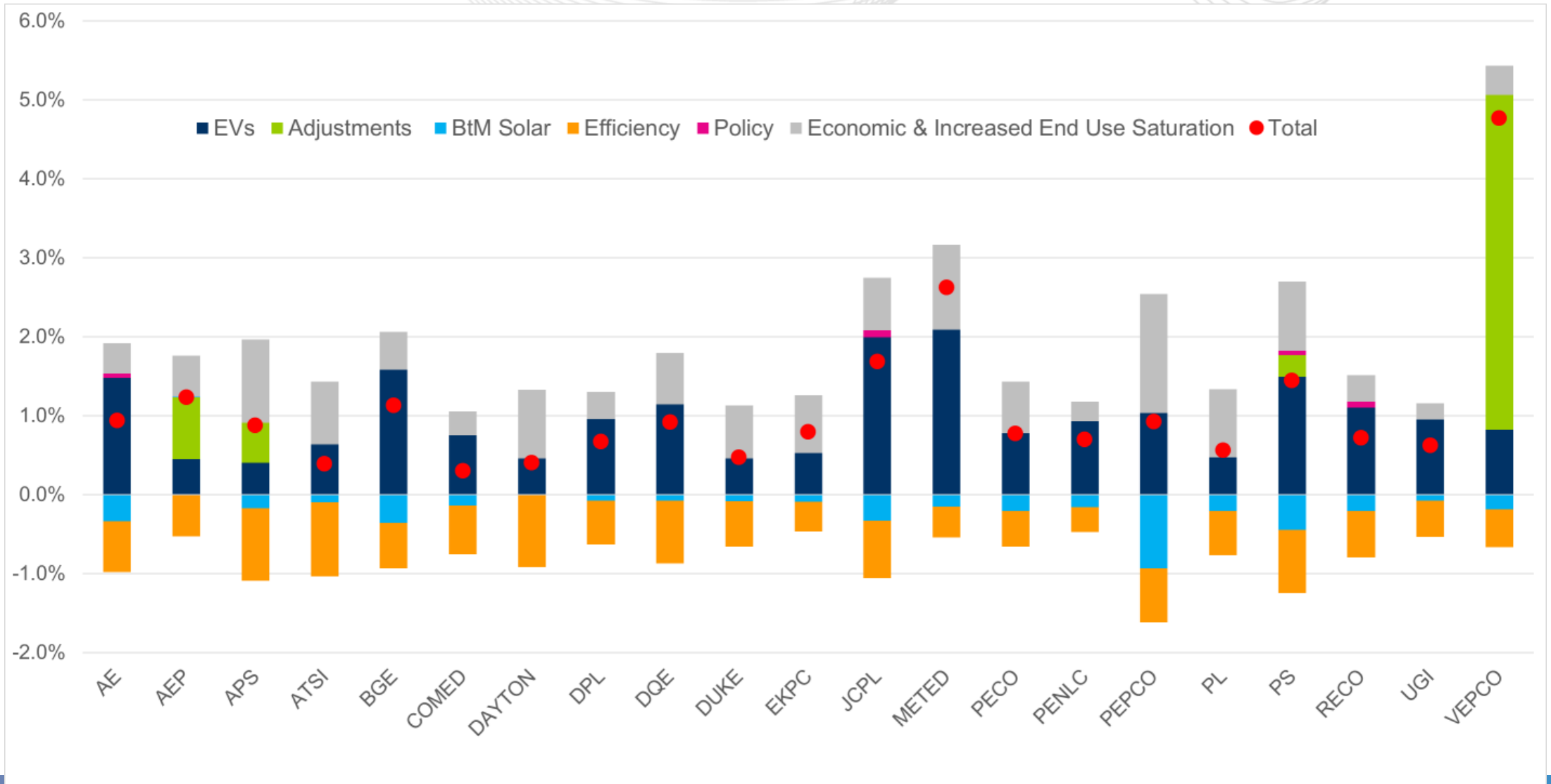
*Remainder is impact of re-estimation as well as new economics and end-use saturation

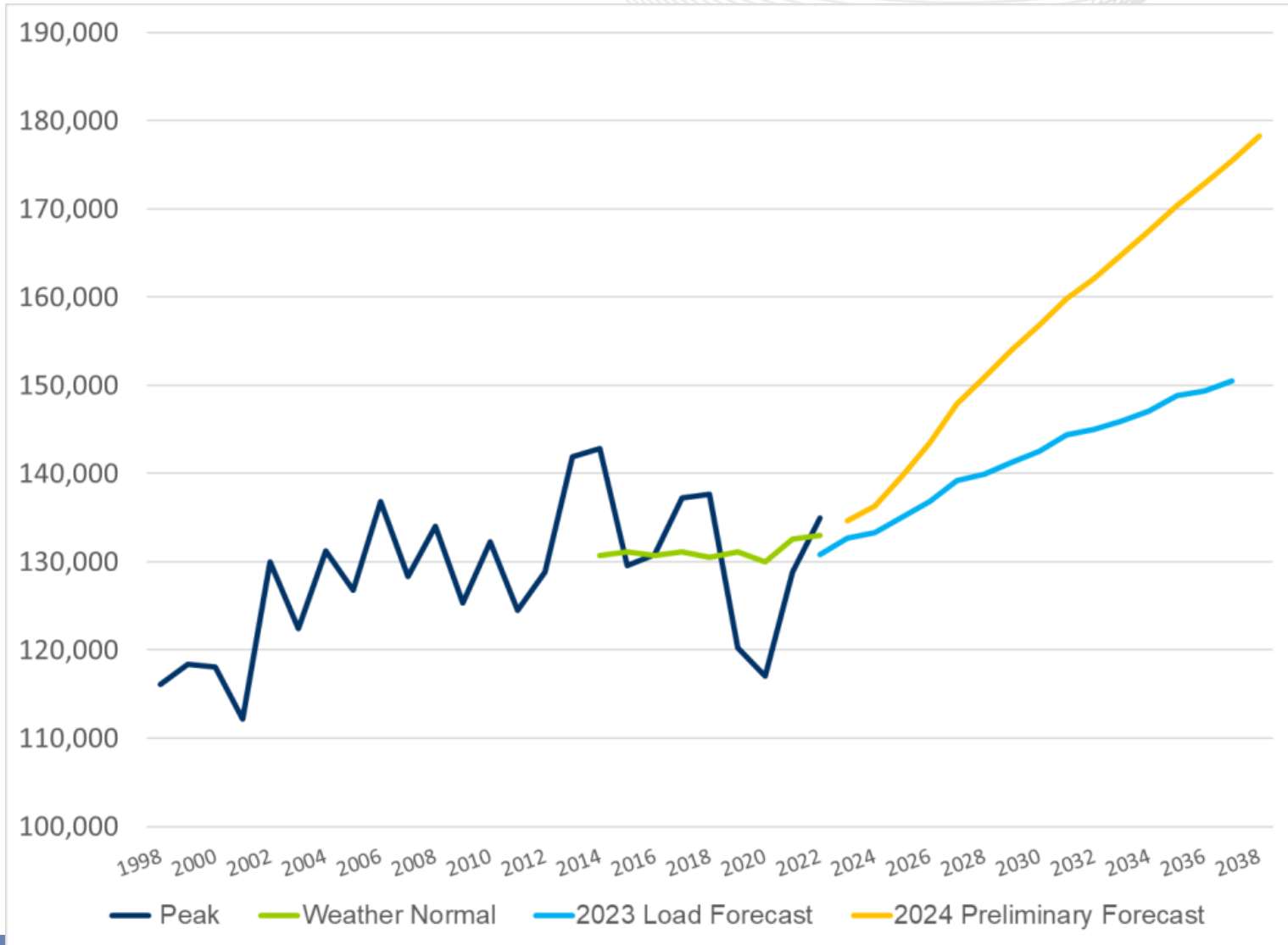


Summer Forecast Flow – Additions and Subtractions



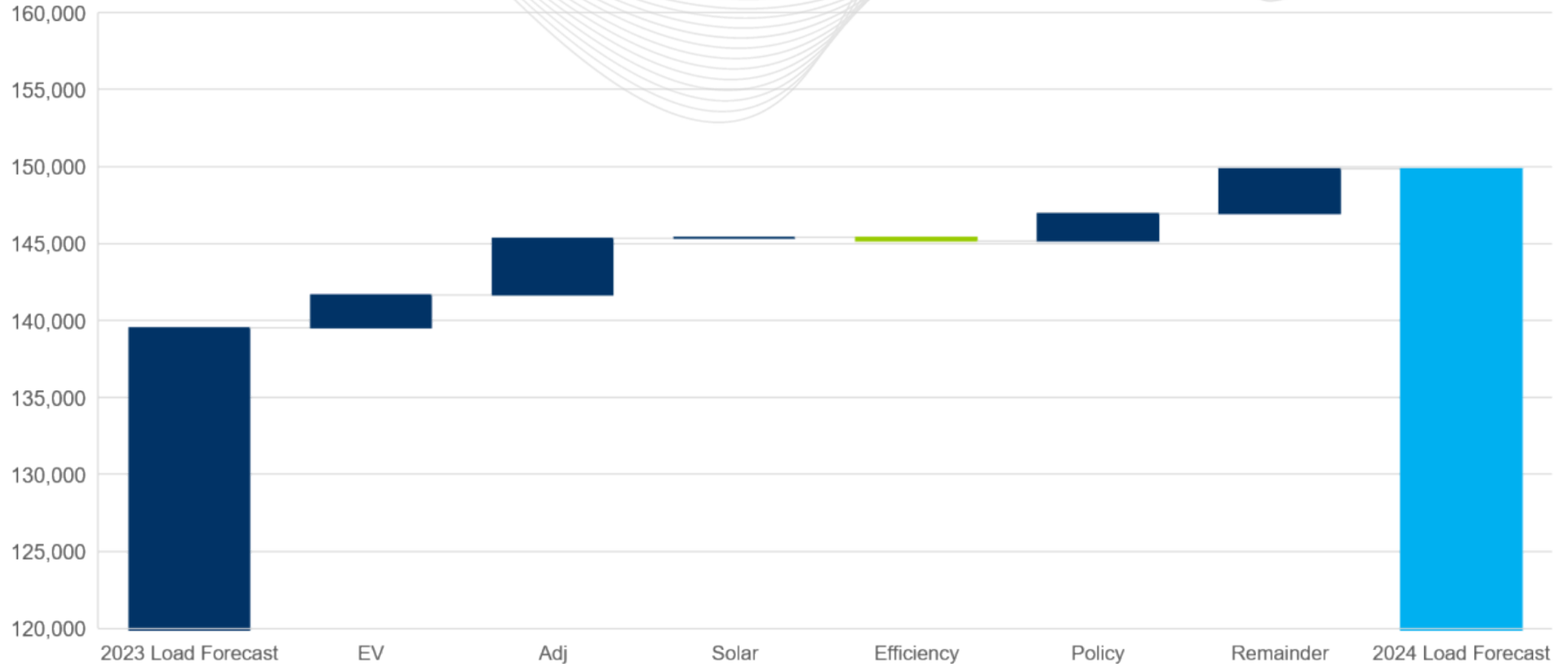
Summer Peak Average Annual Growth (2024-2039)





- 15-year Annualized Growth Rate
 - 2023 Forecast : 0.9%
 - 2024 Prelim : 1.9%
- Select year comparisons (2024 Prelim vs 2023 Forecast)
 - 2027: + 4.8% (~6,700MW)
 - 2029: + 7.8% (~11,000MW)
 - 2037: +16.5% (~25,000MW)

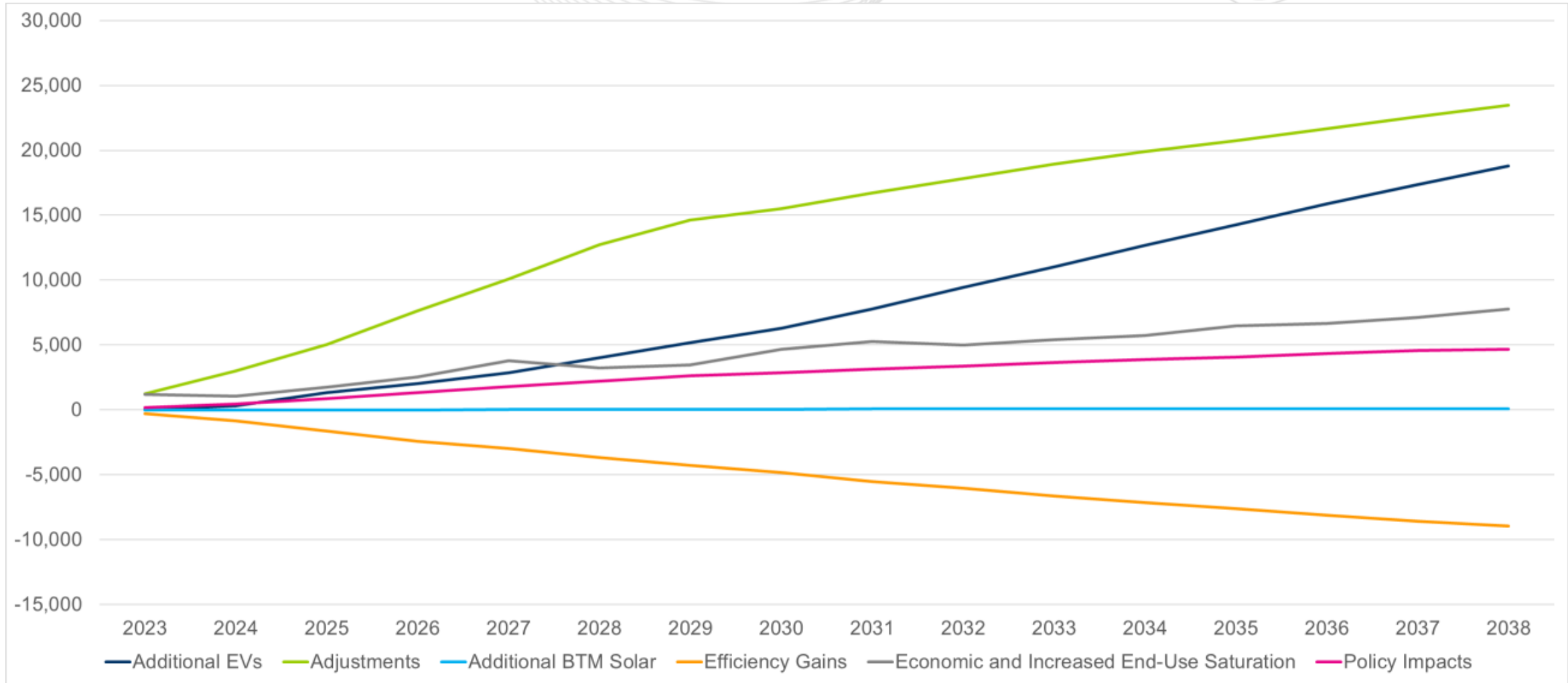
Winter 2027/2028 Forecast Waterfall Comparison



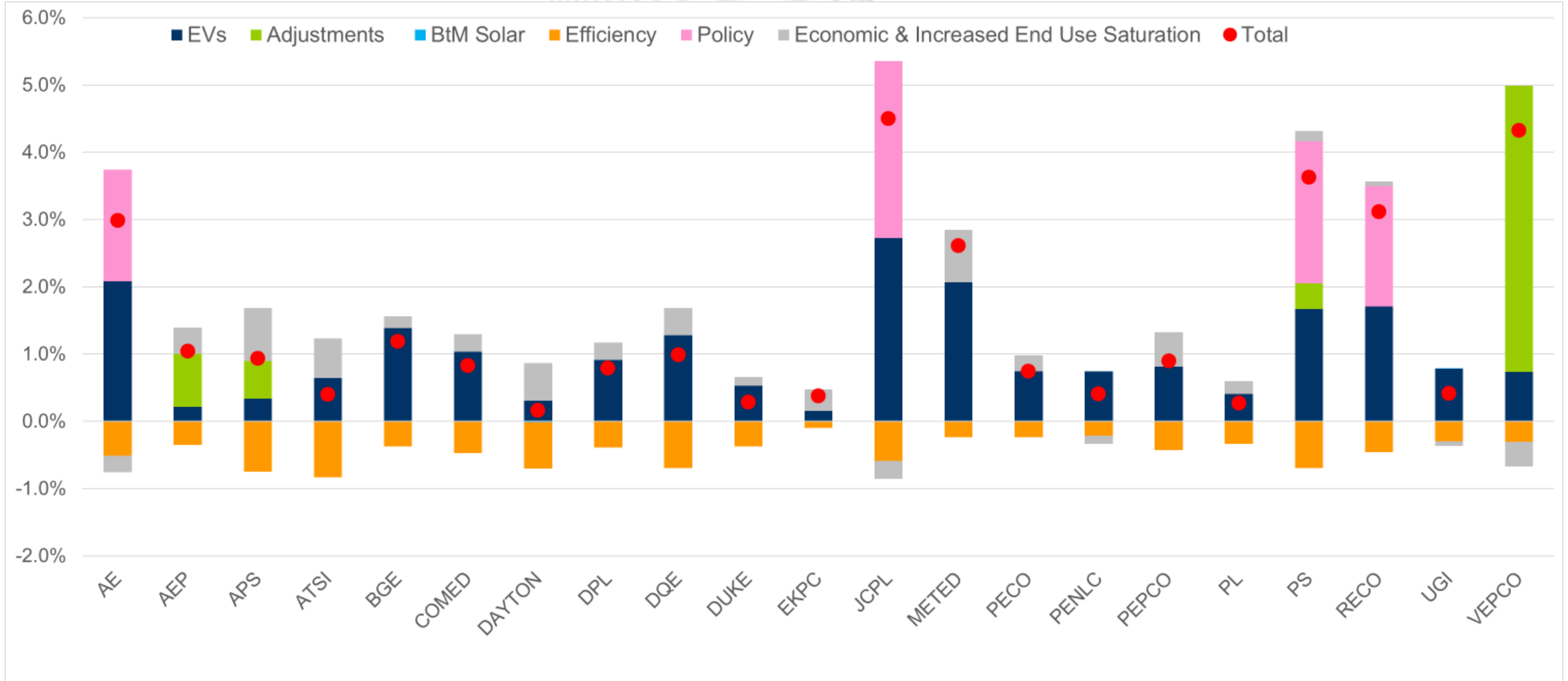
*Remainder is impact of re-estimation as well as new economics and end-use saturation



Winter Forecast Flow – Additions and Subtractions



Winter Peak Average Annual Growth (2023-2038)



- Review with Planning Committee (12/5/2023)
- Internally review/finalize data such as:
 - Minor adjustments for NRBTMG (~21 MW)
- Publish final report in late December
 - Accompanying spreadsheets
 - Model Details Spreadsheets
 - End-Use Indices
 - Weather Variables
 - Statistical Appendix
 - Load Report Supplement

SME/Presenter:
Molly Mooney,
Molly.Mooney@pjm.com
Load_Analysis_Team@pjm.com



2024 Preliminary Load Forecast

Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com

**PROTECT THE
POWER GRID
THINK BEFORE
YOU CLICK!**



Be alert to
malicious
phishing emails.

Report suspicious email activity to PJM.
(610) 666-2244 / it_ops_ctr_shift@pjm.com

