2026 PJM Long-Term Load Forecast

Load Analysis Subcommittee

January 23, 2026

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Resource Adequacy Planning

Model Parameters

- Estimation Period: January 2016 through August 2025
- Weather Simulation: 1994 to 2024 (403 scenarios)
- Sector Models (2015-2024 Monthly from EIA 861 and EIA 861m)
  - End Use Data: Based on Itron's 2025 release
  - Economics: September 2025 vintage from Moody's Analytics
- S&P Global Solar/Battery Forecast (zonal & peak allocation by PJM)
  - Production estimates by UL
- S&P Global - Plug-in Electric Vehicles (PEVs)

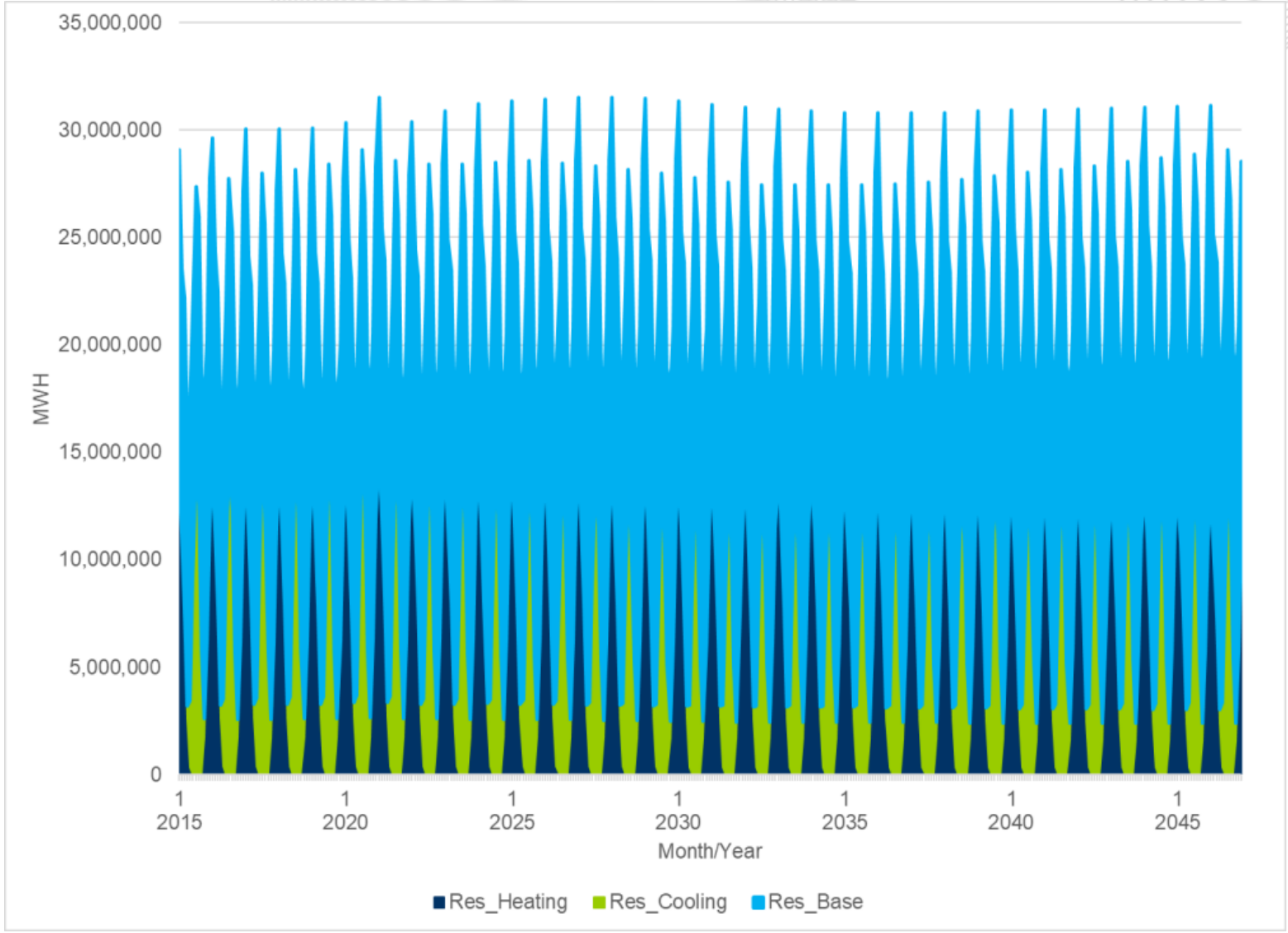
Forecast Adjustments

- Load Adjustments:
  - Data Centers (AEP, ATSI, APS, BGE, COMED, DAYTON, DQE, JCPL, METED, PECO, PEPCO, PL, PS and Dominion);
  - Port Electrification (PS);
  - Voltage Optimization (Dominion);
  - Peak Shaving Adjustment (EKPC)

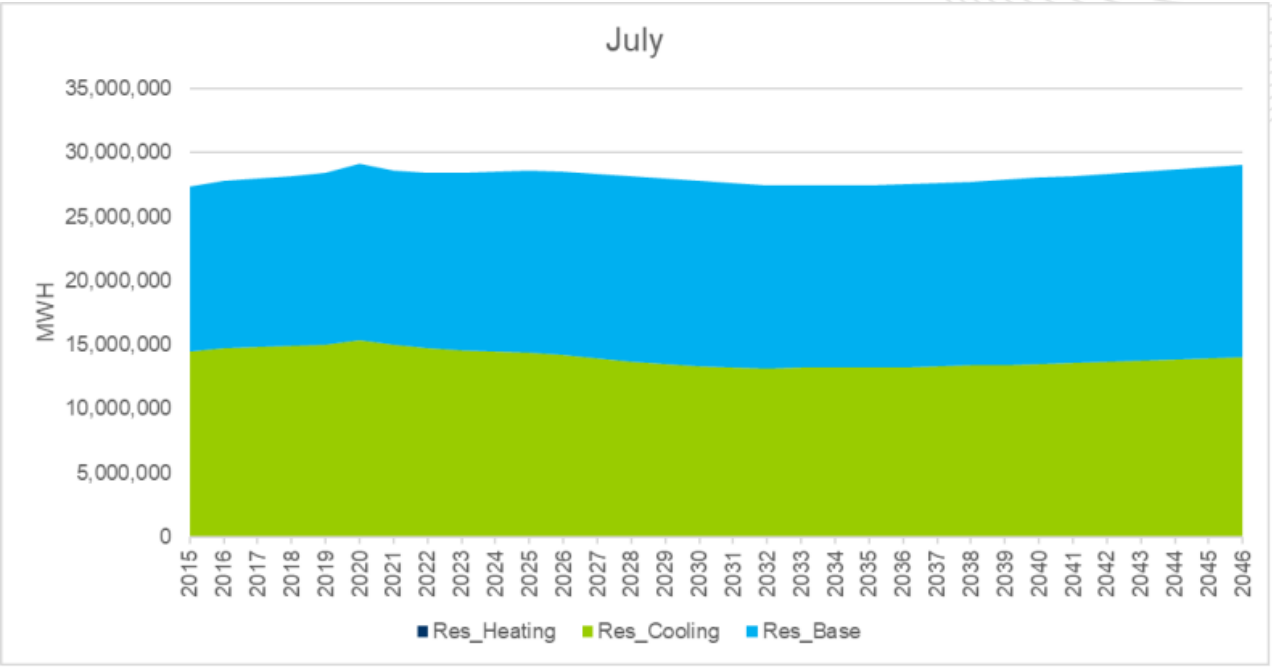
Heating/Cooling/Other

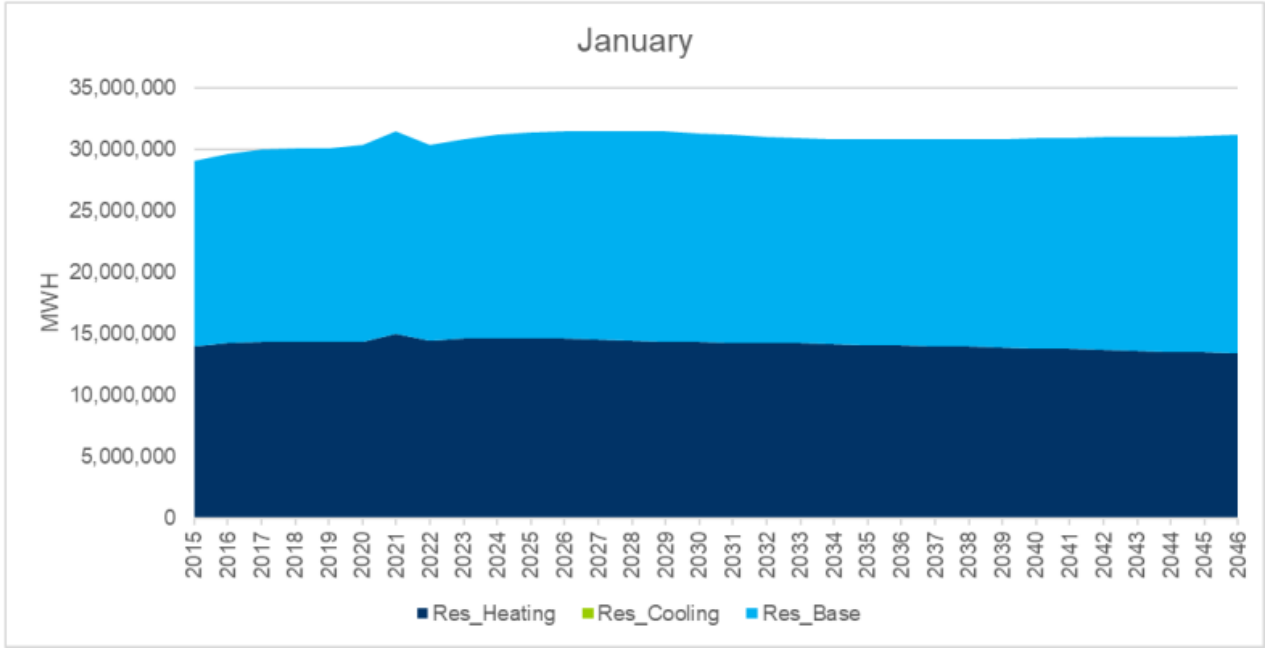
- Heat/Cool/Other are driven by Sector (Residential/Commercial/Industrial) models. Sector model results are influenced by two factors.
  - Economics
    - Residential – Households, Personal Income, Population per household
    - Commercial – Employment, Population, Output
    - Industrial - Output
  - End-use (saturation/efficiency/intensity)
    - Residential
    - Commercial
    - Industrial

Residential

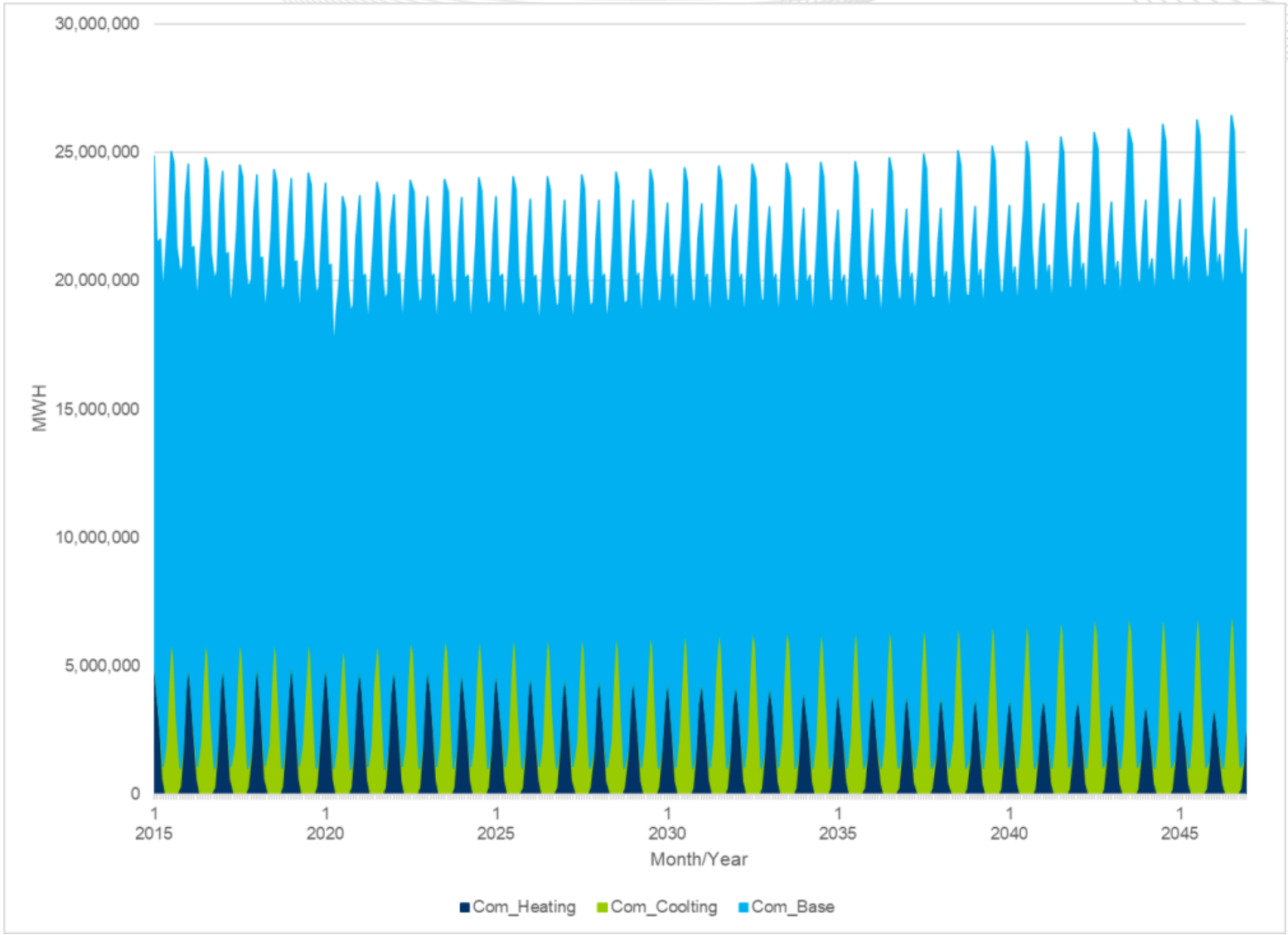


Residential

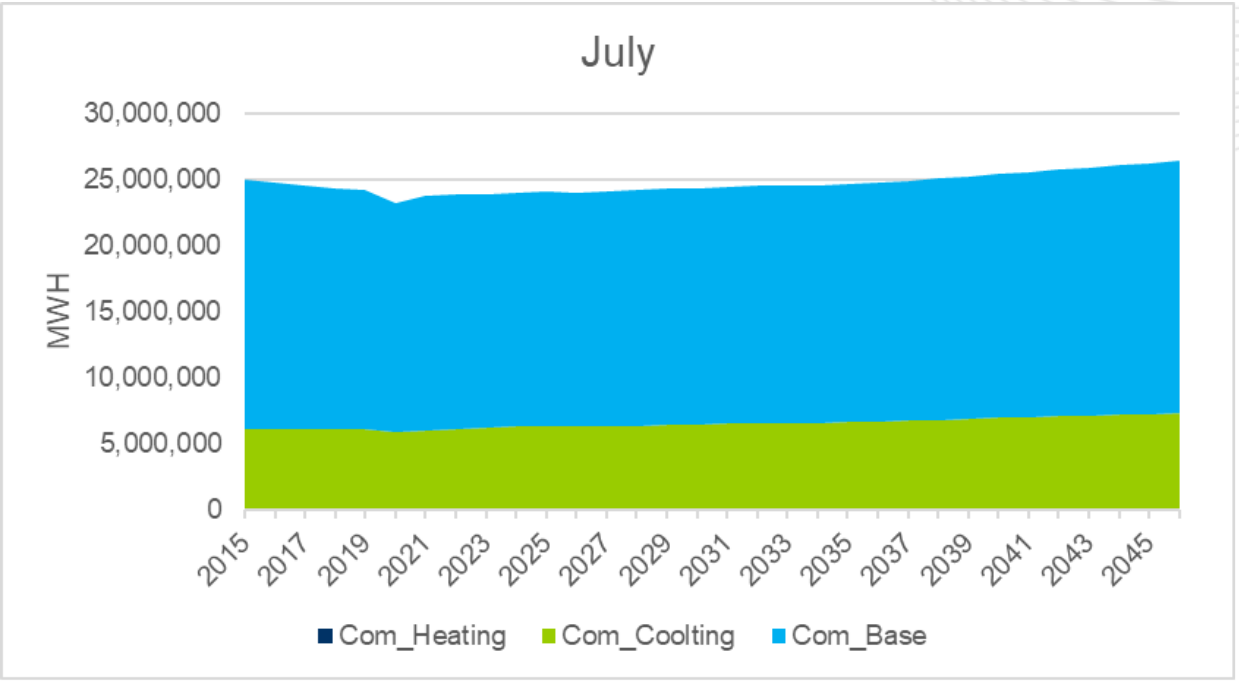


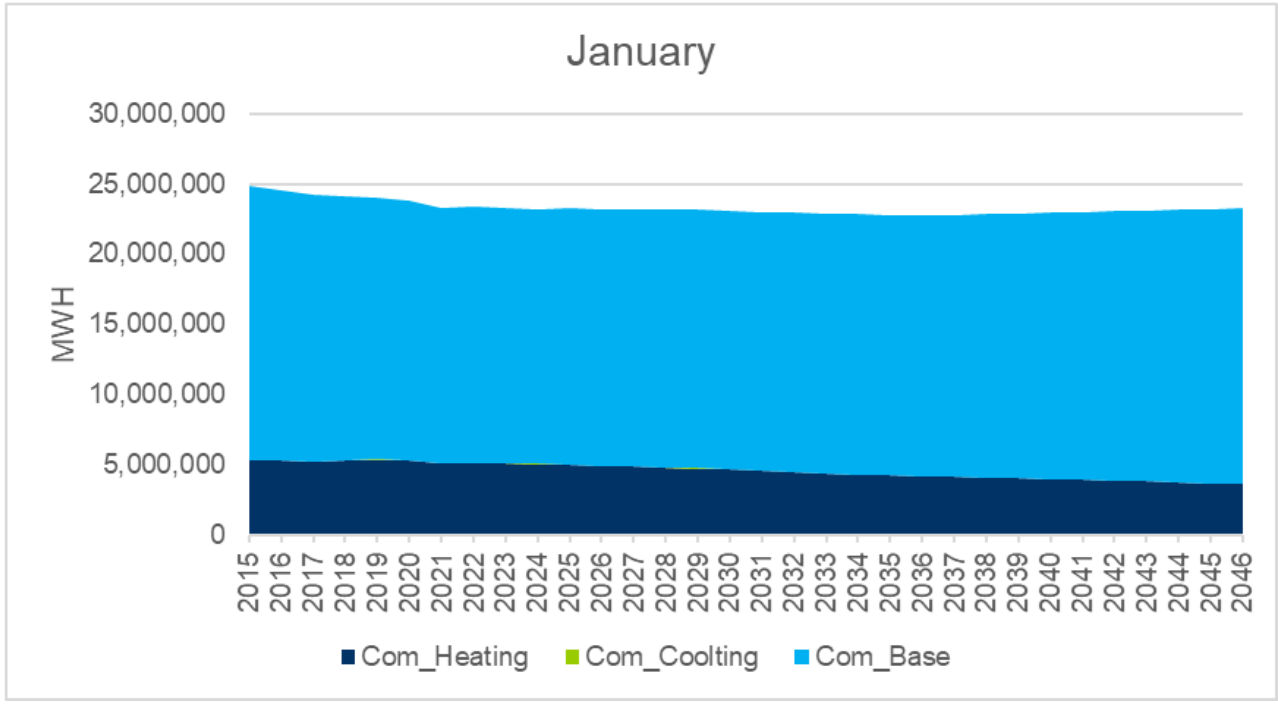


Commercial

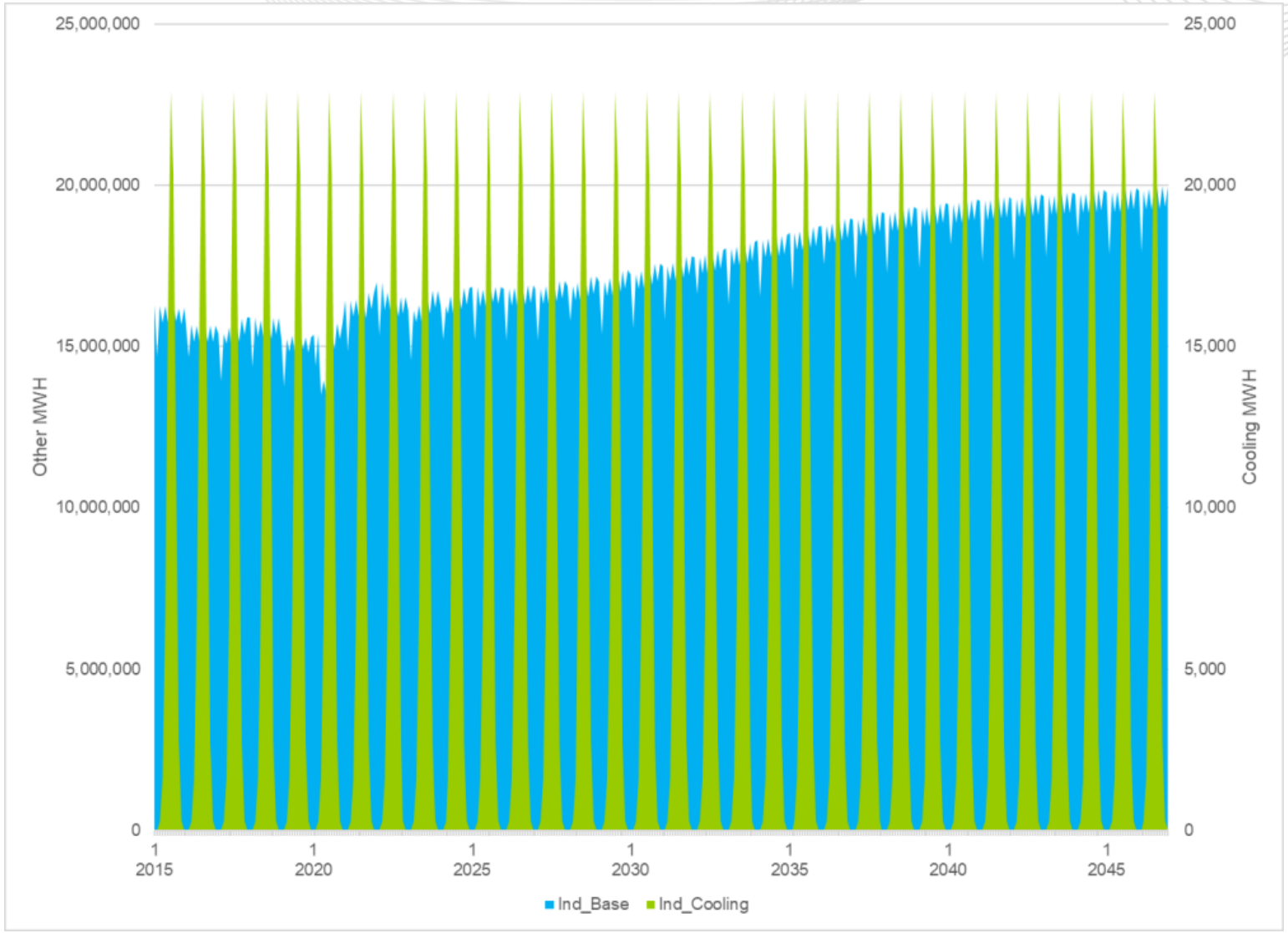


Commercial

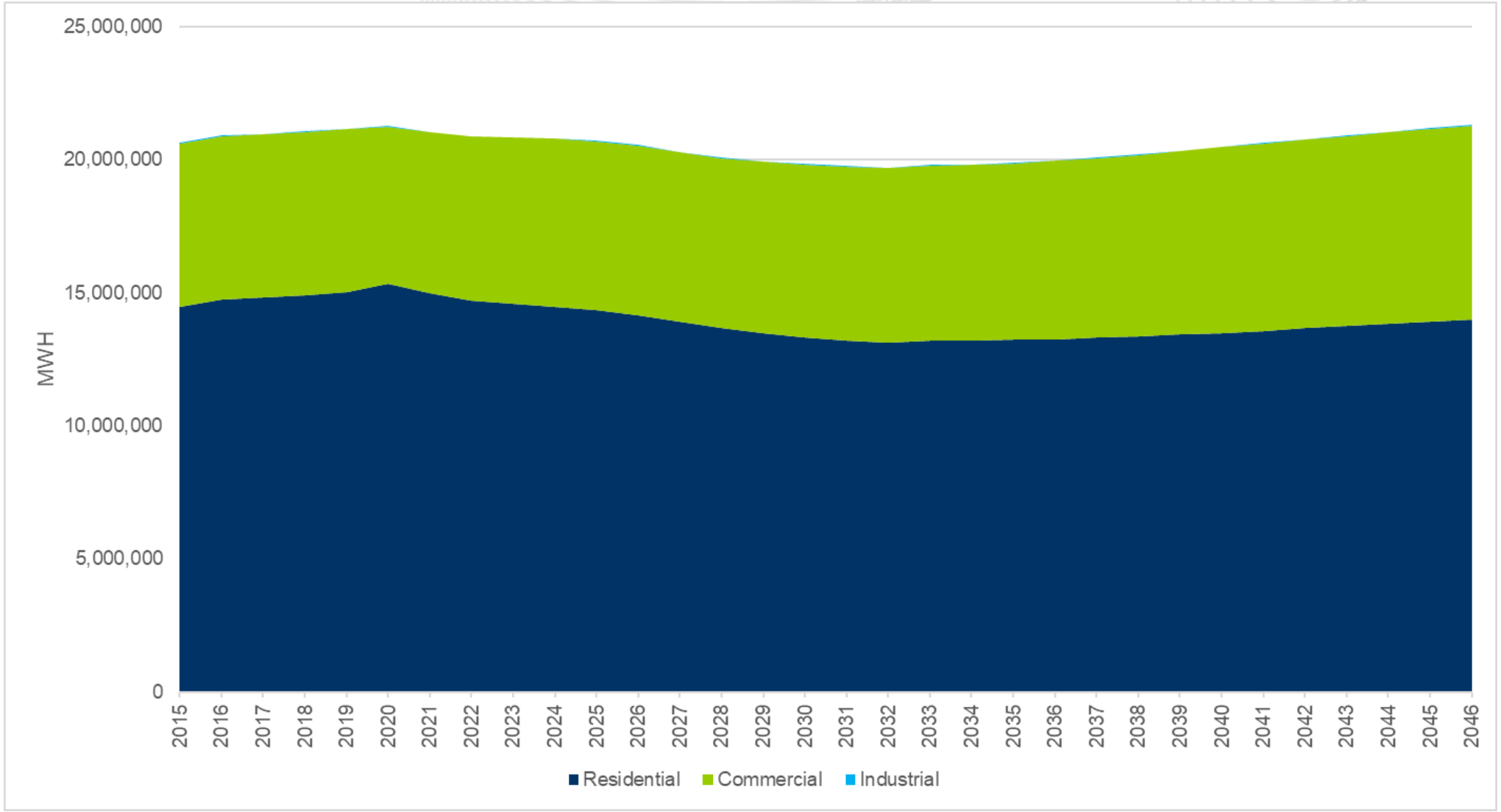




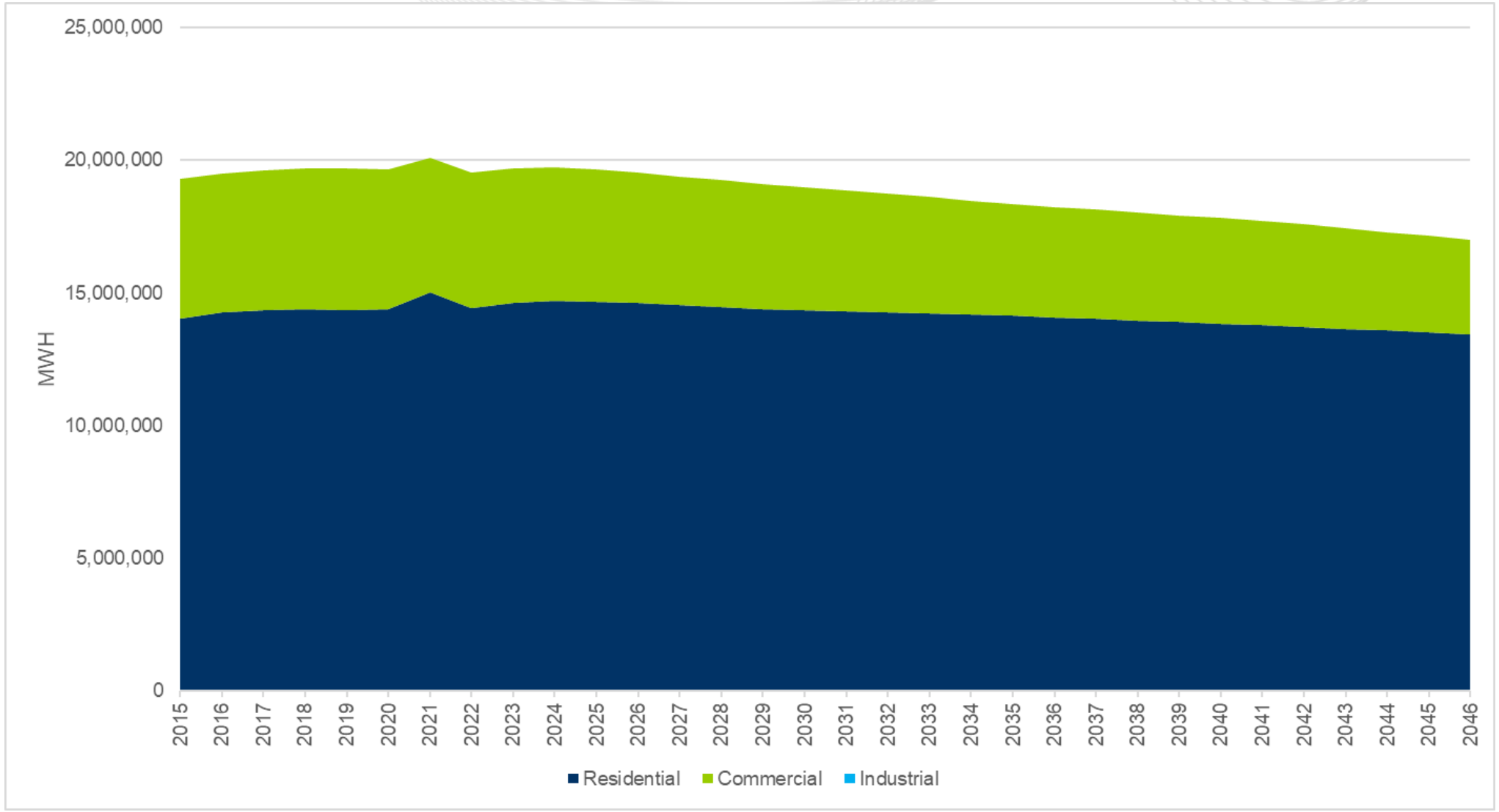
Industrial



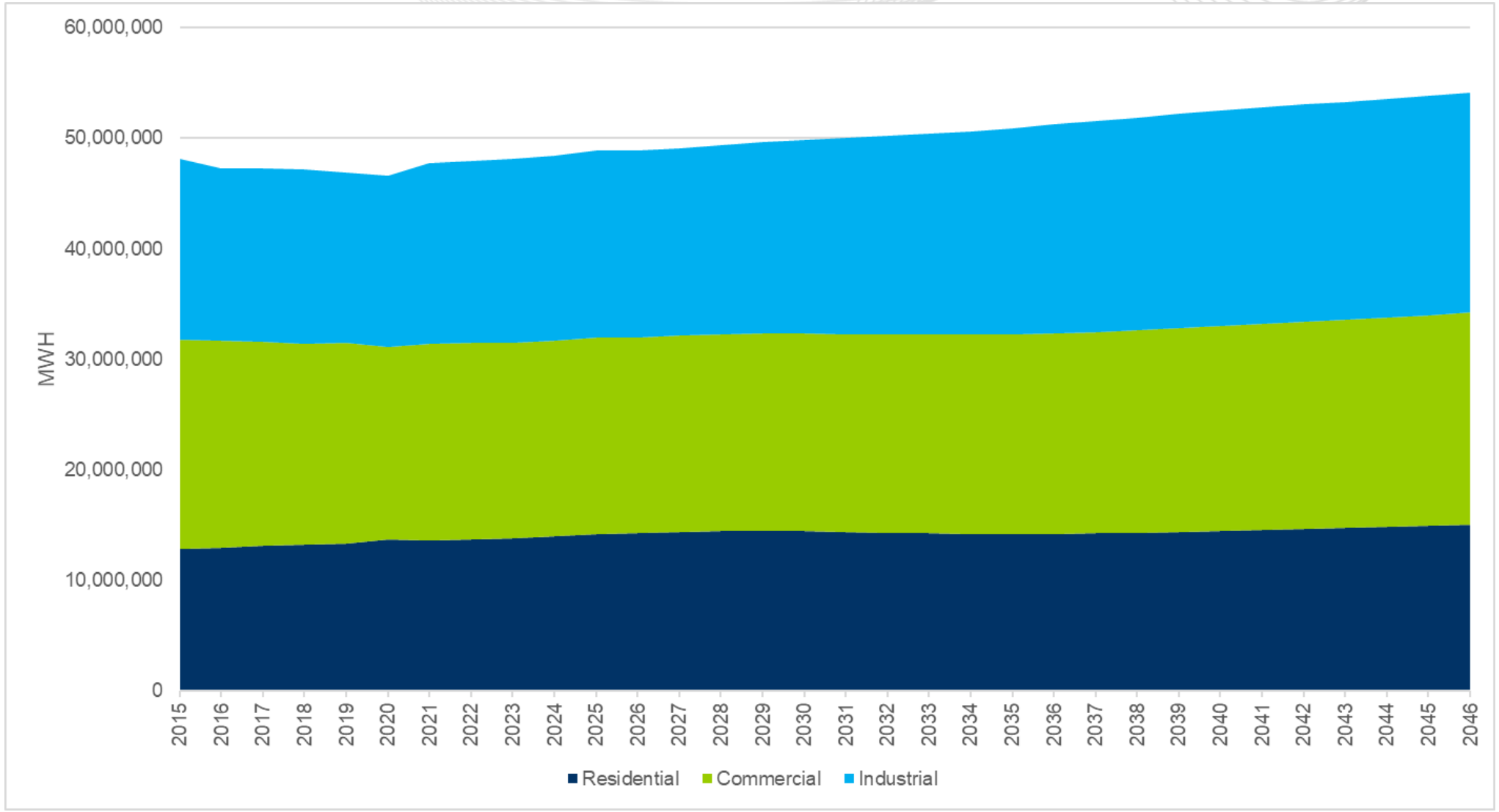
Cooling



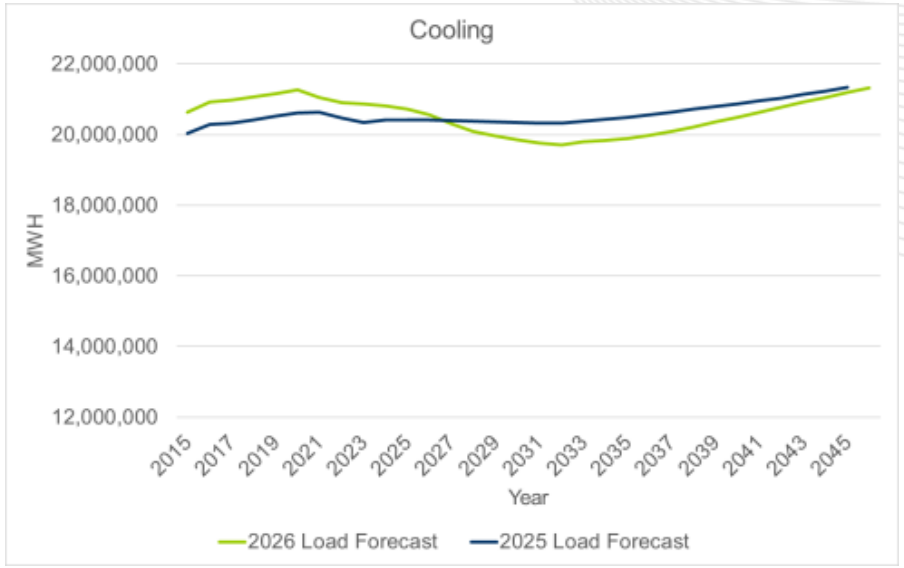
Heating

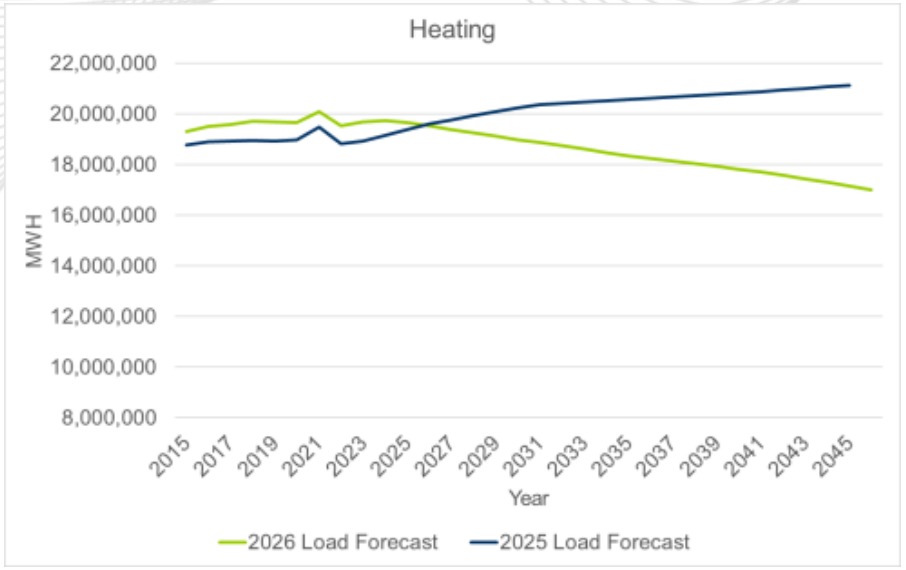


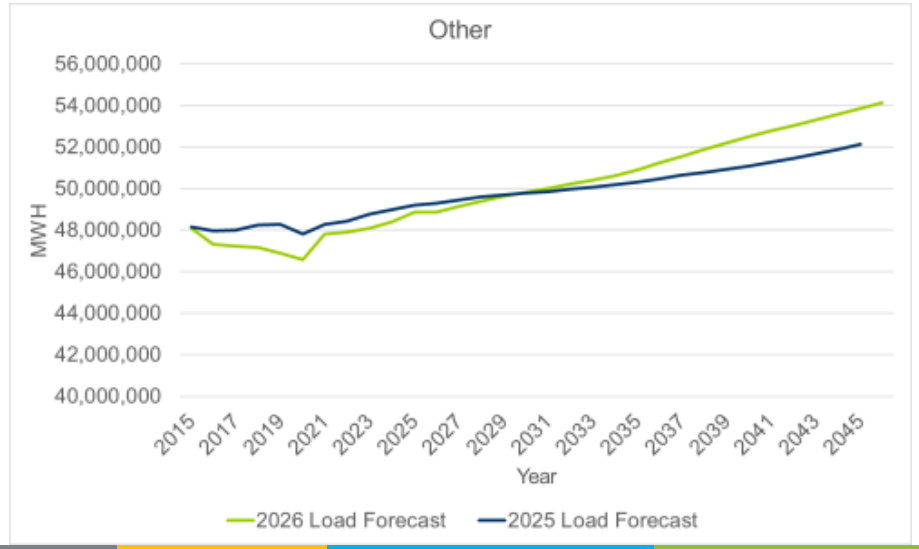
Other



Cooling, Heating, and Other Comparison

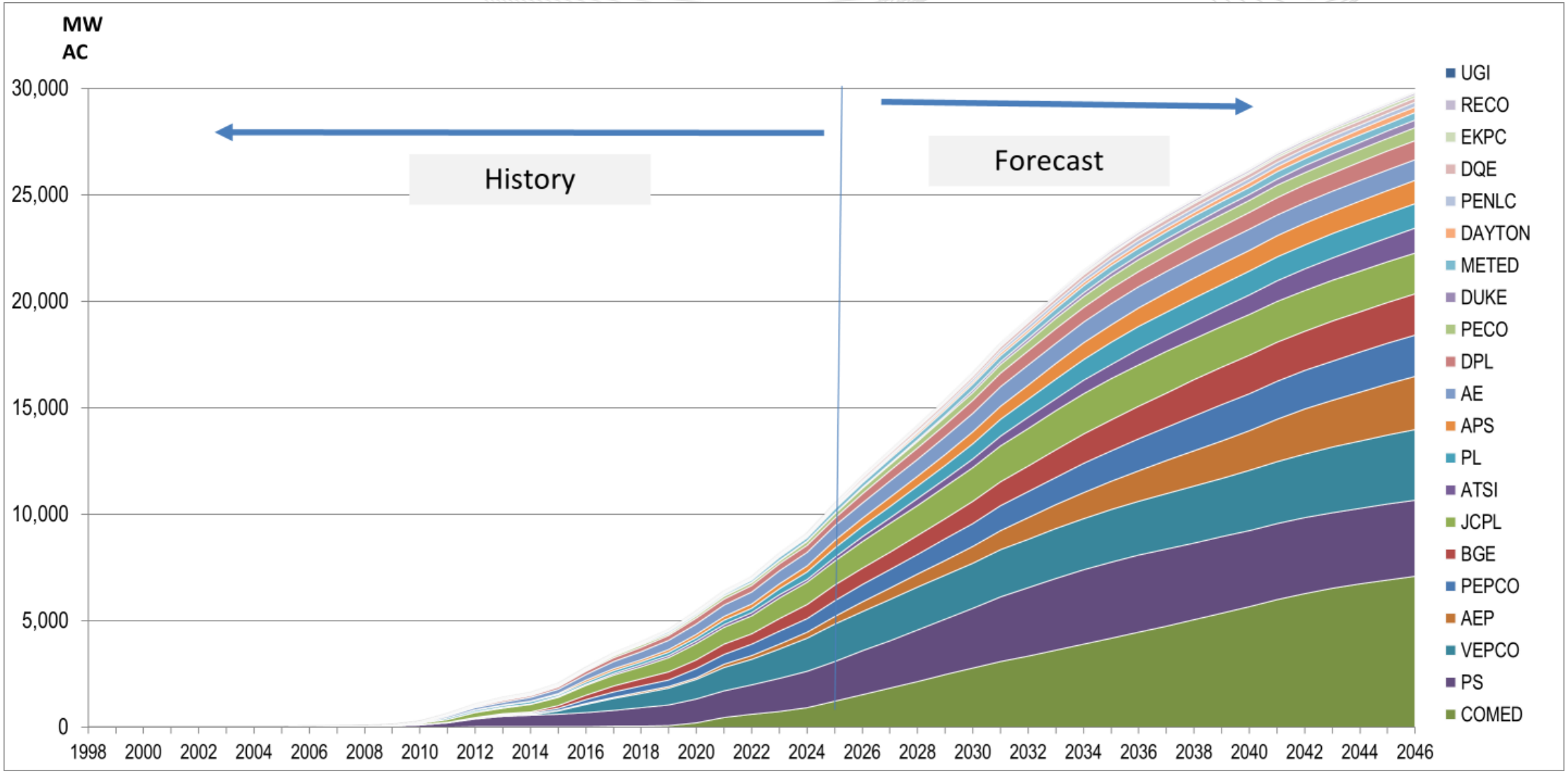




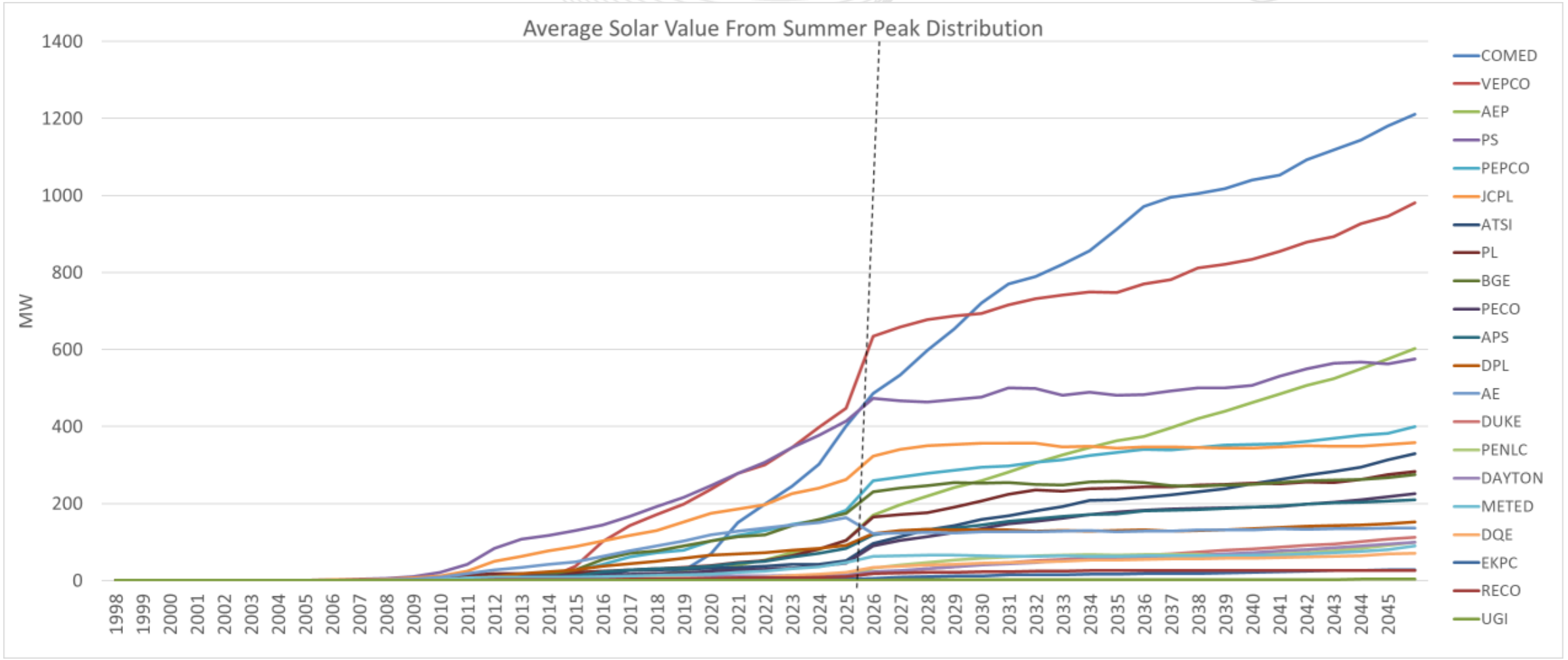


Distributed Solar and Battery Generation

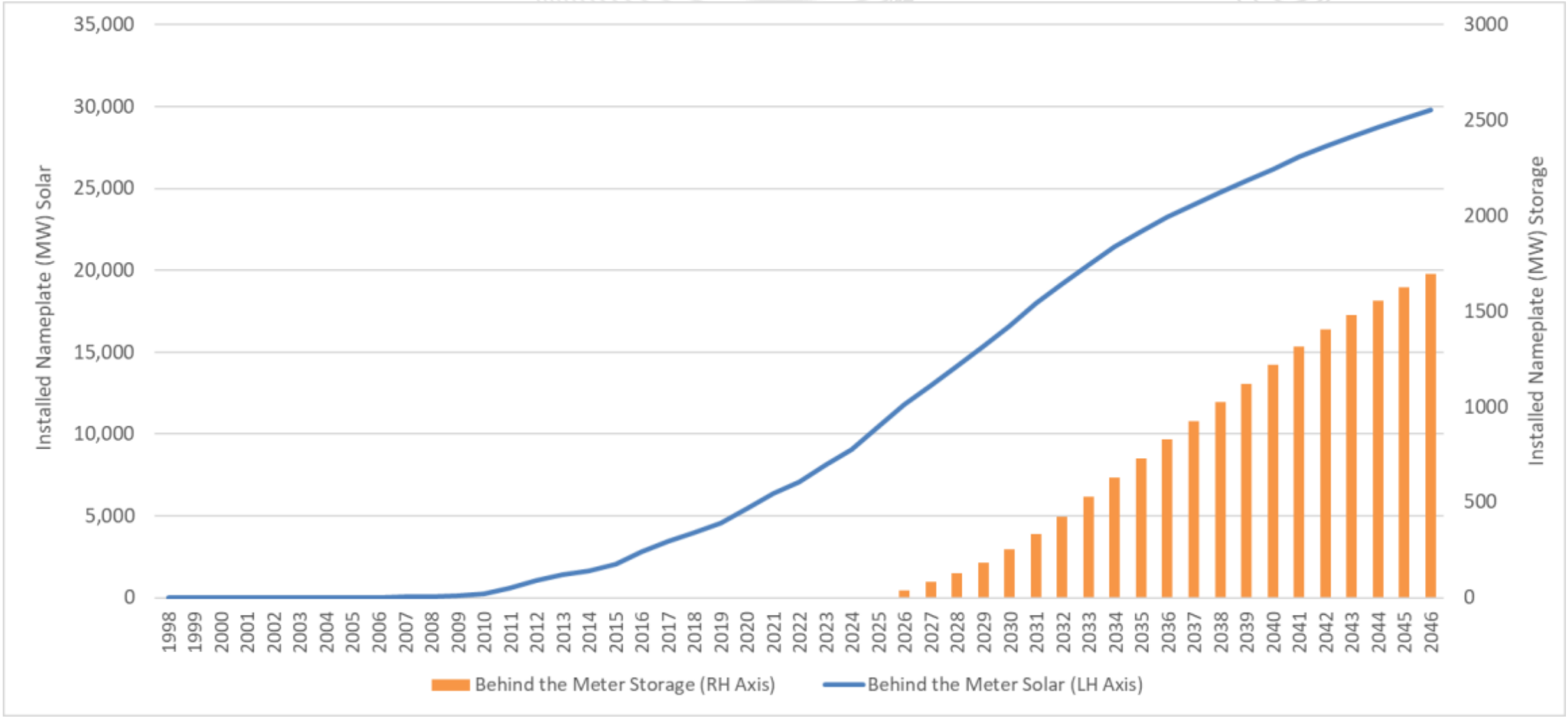
Distributed Solar Generation 2026 Forecast by Zone



Distributed Solar Peak Forecast by Zone



Total PJM Nameplate



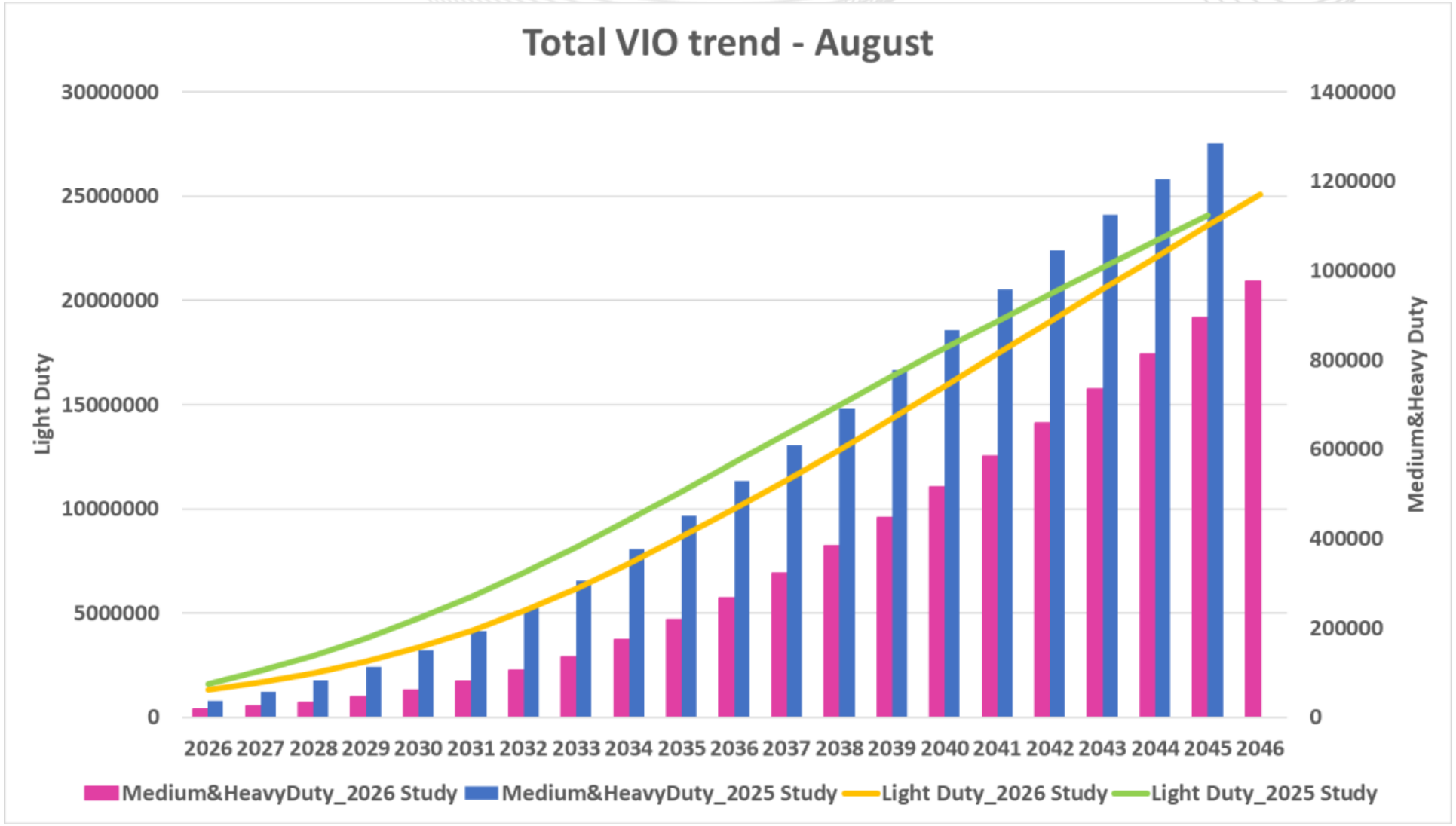
Plug-in Electric Vehicles

Vendor Supplied Electric Vehicle Forecast

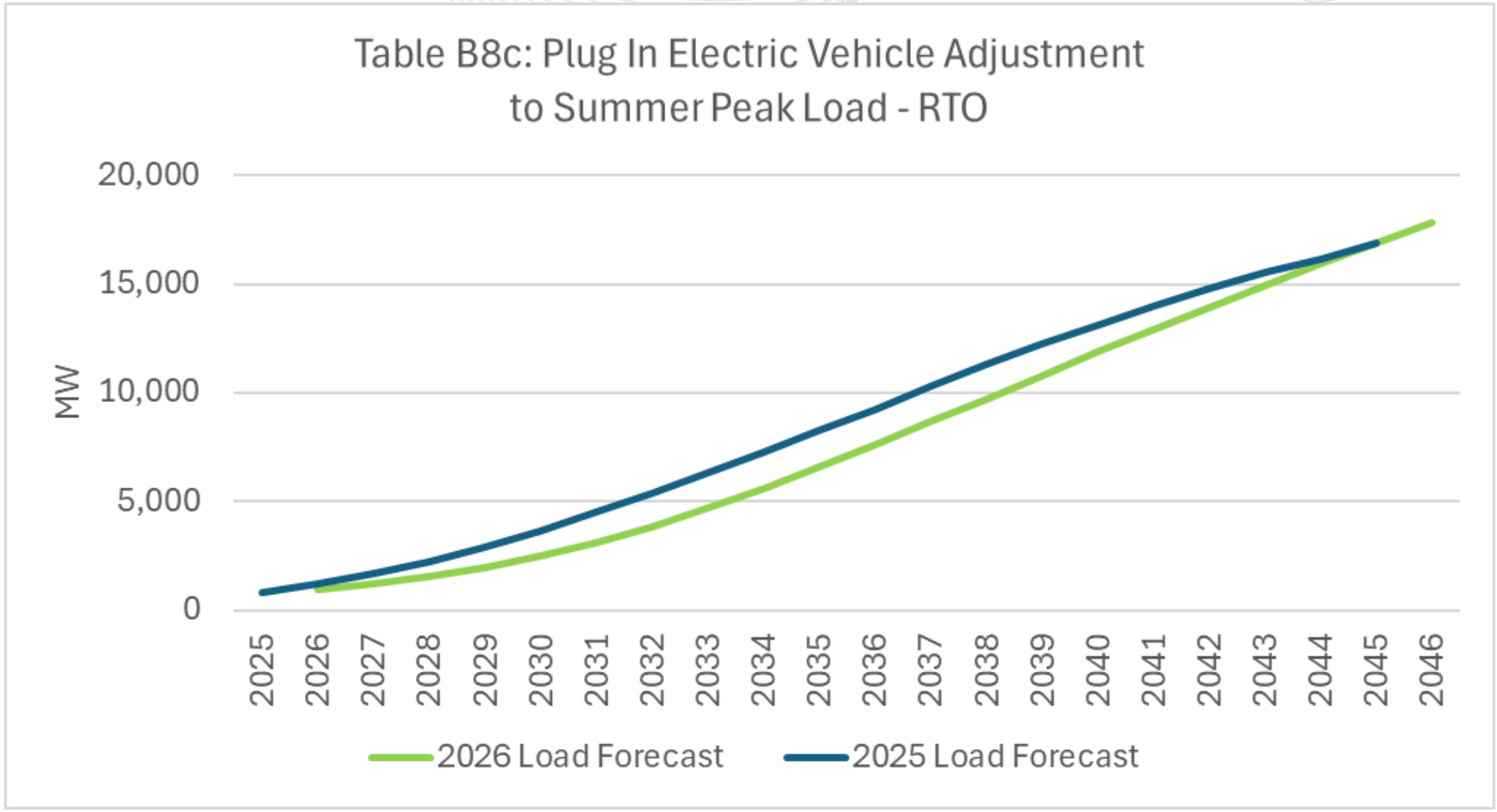
- PJM has contracted with S&P Global to produce an Electric Vehicle forecast for Light Duty and Medium & Heavy Duty

- S&P Global provided PJM with:
  - Zonal forecasts of vehicle counts by class
  - Zonal hourly charging by vehicle class for forecast horizon

Electric Vehicle Counts



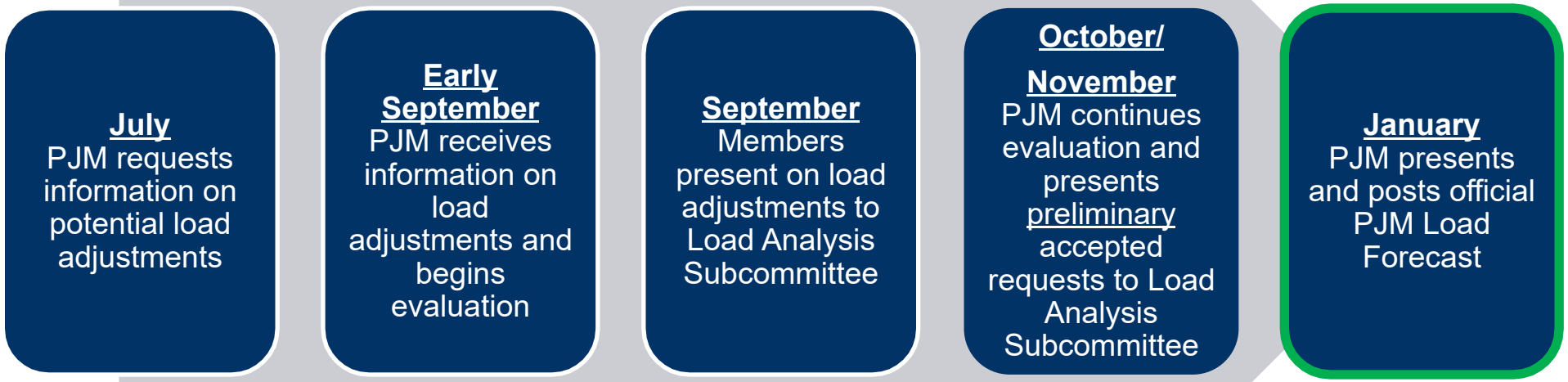
Electric Vehicle Comparison



Load Forecast Adjustments

Timeline for Large Load Adjustments

Official request sent July 1

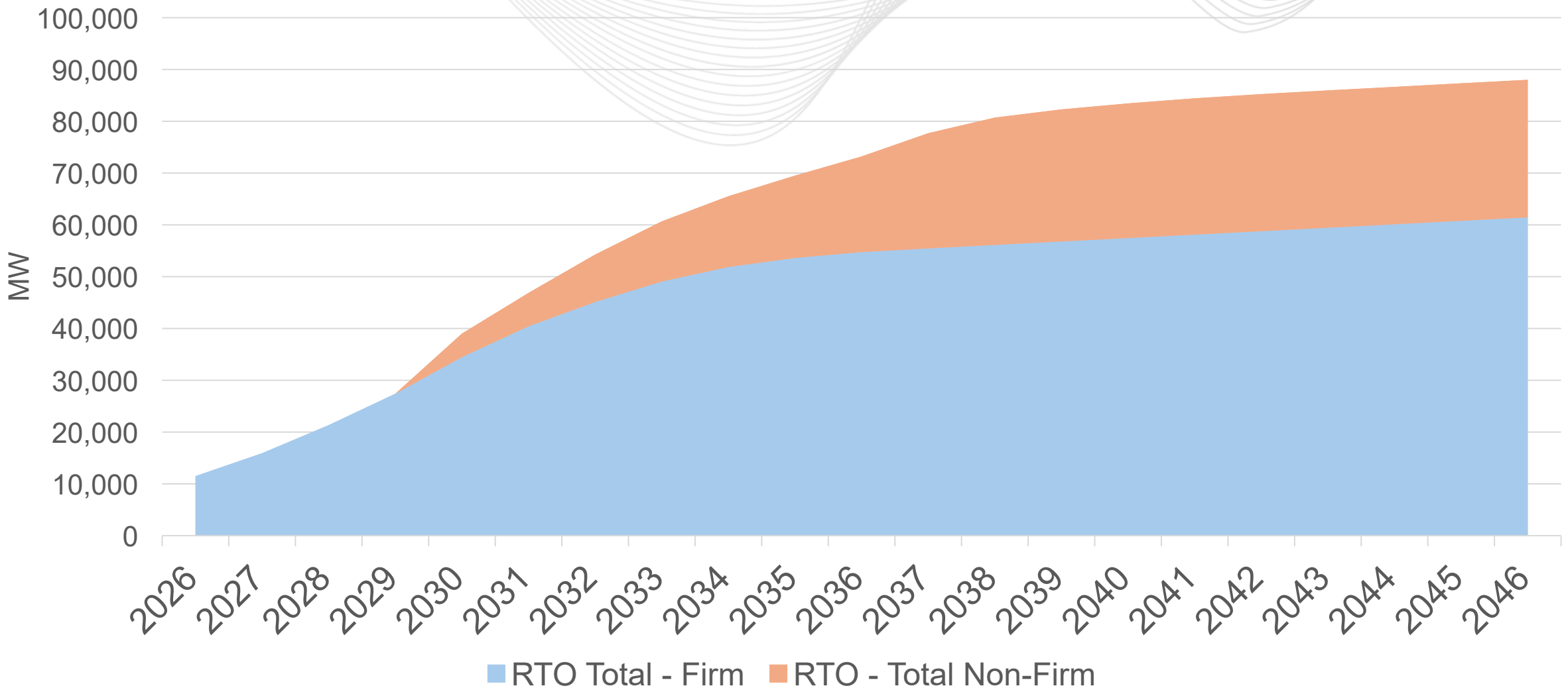


EDC/LSE presentations from the 9.16.2025 LAS meeting and PJM presentation from the 11.24.2025 are here:
https://www.pjm.com/committees-and-groups/subcommittees/las

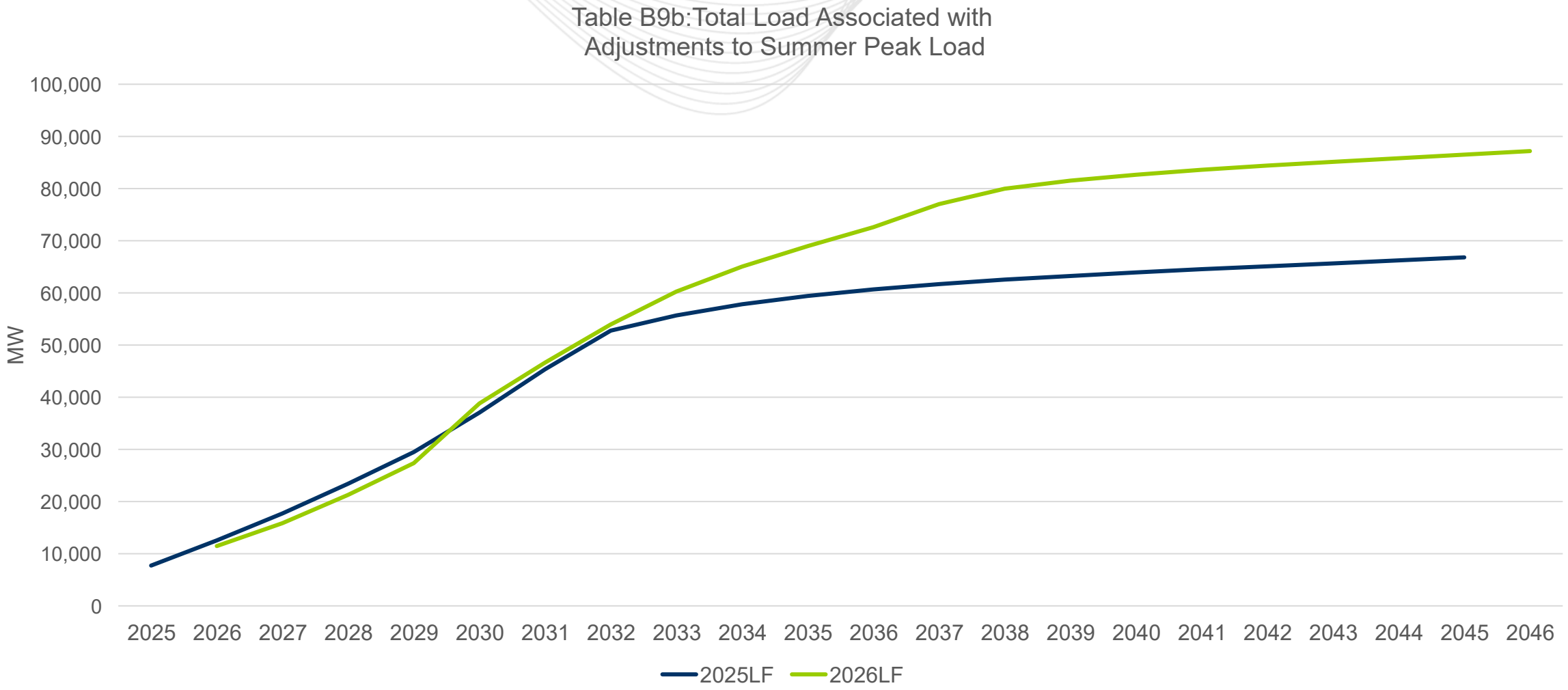
Evaluating Requests

- Filtered projects
  - Worked to identify those that had ESO/CC and marked those as “Firm”. Only these projects will be allowed to impact RPM
  - All other projects were labeled “Non-Firm”
- Investigated ramp rates (how long it takes for a data center to get from online to full demand) and imposed minimum 36 month
- Investigated utilization rate (% of final capacity that is used) and imposed 70% unless otherwise supported
- Considered national projections for a top-down estimate
- Review of economic data in load forecast model to mitigate double counting load growth

RTO


100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
MW
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046
RTO Total - Firm
RTO - Total Non-Firm

Total Load Adjustment Comparison



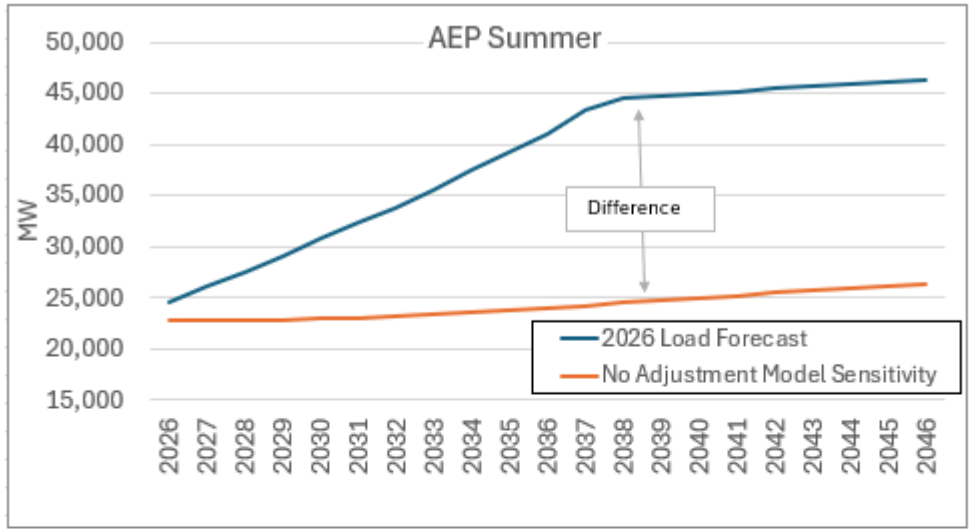
2026 Forecast (blue line):

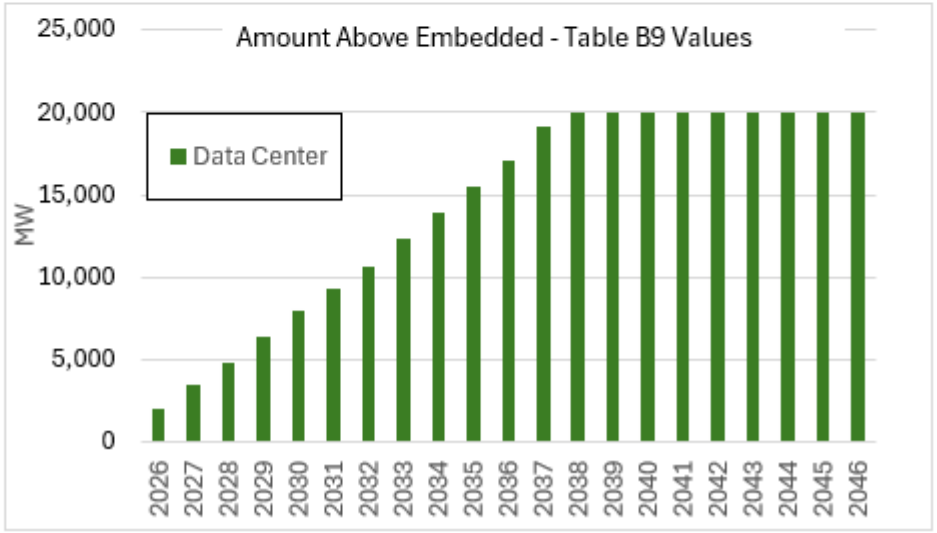
- For any zone with existing data center loads in history:
  - PJM removes monthly data center load from the commercial EIA data in an effort to remove any double counting
  - PJM also removes hourly data center load from our historical loads that get used in our model estimation
  - Final total accepted load gets added
- For any zone without existing data center loads in history:
  - Final total accepted large load gets added

For Table B9 (amount above embedded) :

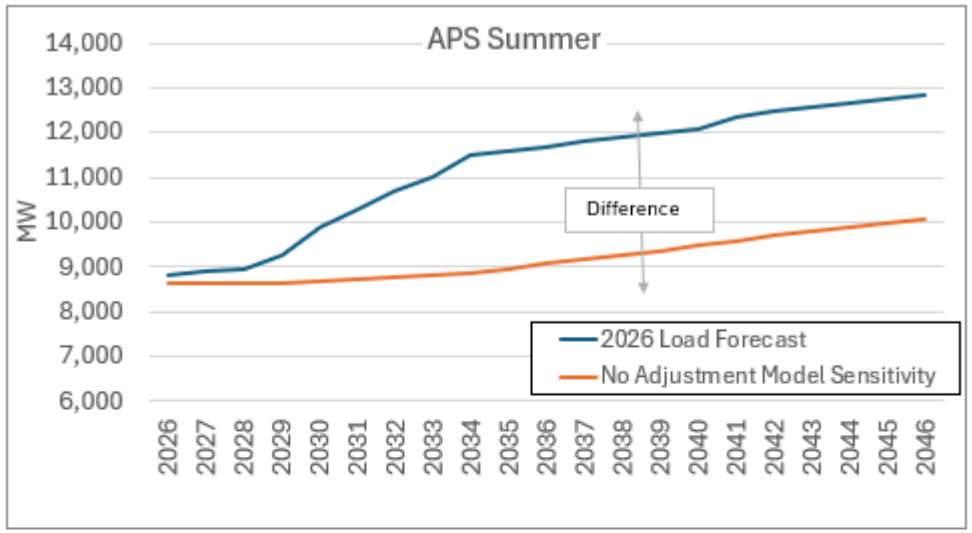
- To compute B9 values
  - A sensitivity is run with no data center loads removed from history in Commercial loads and historical loads (orange line)
  - This forecast is compared to final forecast to show amount above embedded (green bars)

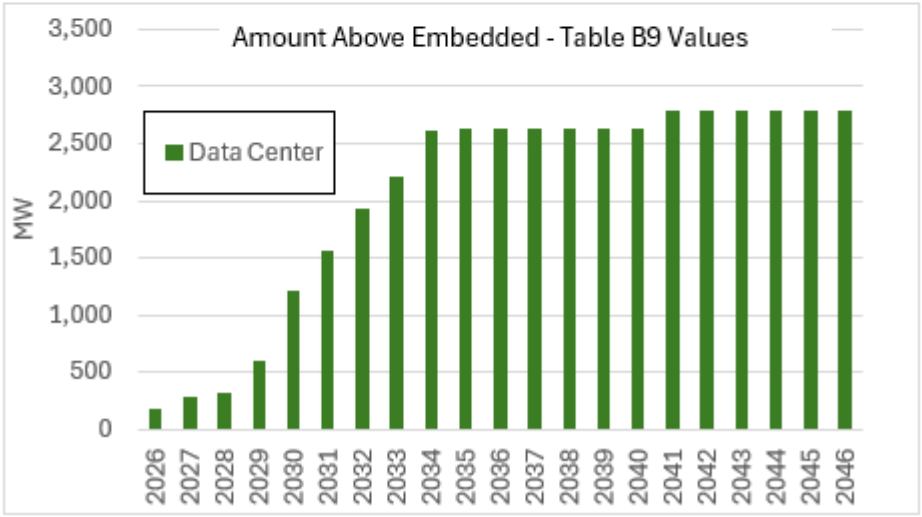
AEP


AEP Summer
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
MW
Difference
2026 Load Forecast
No Adjustment Model Sensitivity
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046

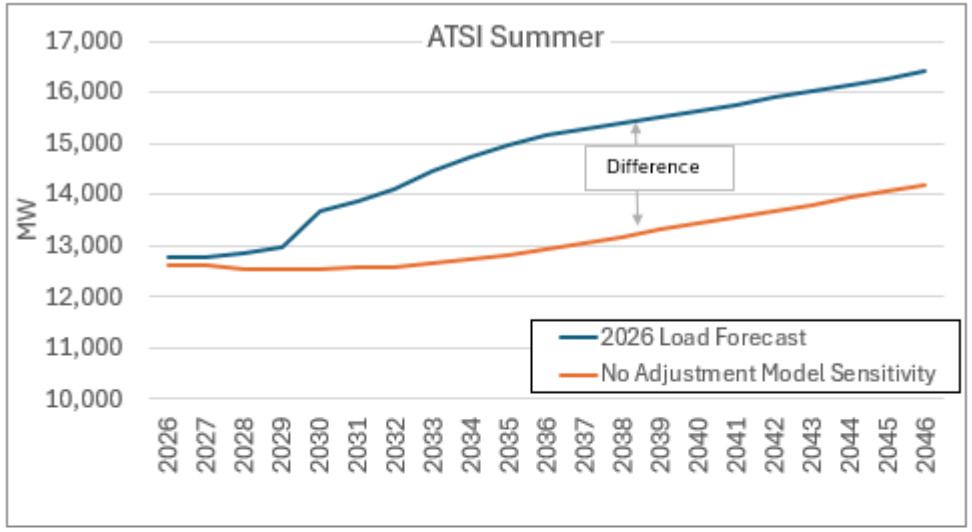

Amount Above Embedded - Table B9 Values
25,000
20,000
15,000
10,000
5,000
0
MW
Data Center
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046

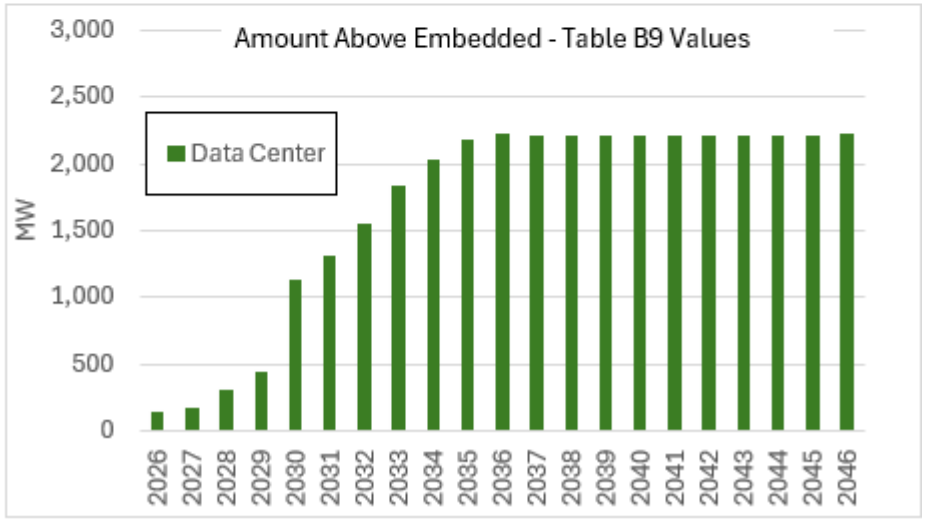
APS


APS Summer
14,000
13,000
12,000
11,000
10,000
9,000
8,000
7,000
6,000
MW
Difference
2026 Load Forecast
No Adjustment Model Sensitivity
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046

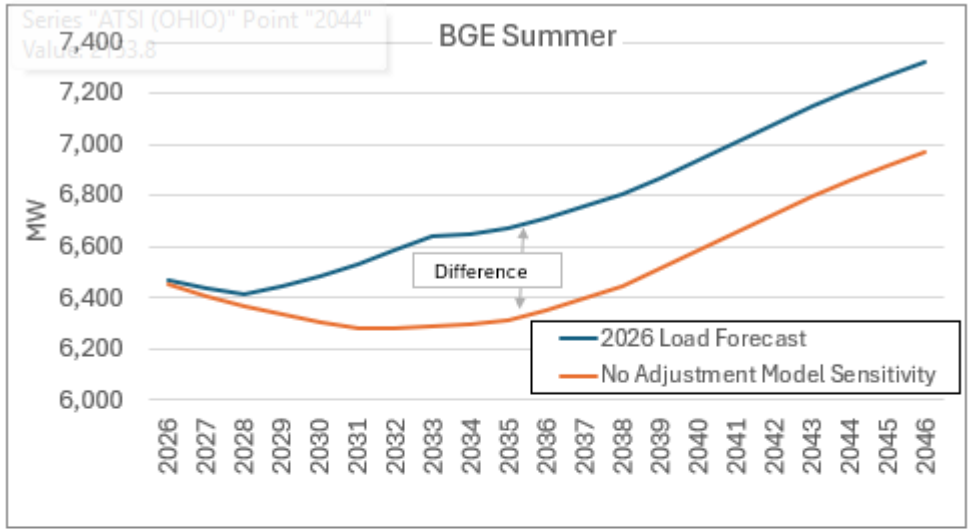

Amount Above Embedded - Table B9 Values
3,500
3,000
2,500
2,000
1,500
1,000
500
0
MW
Data Center
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046

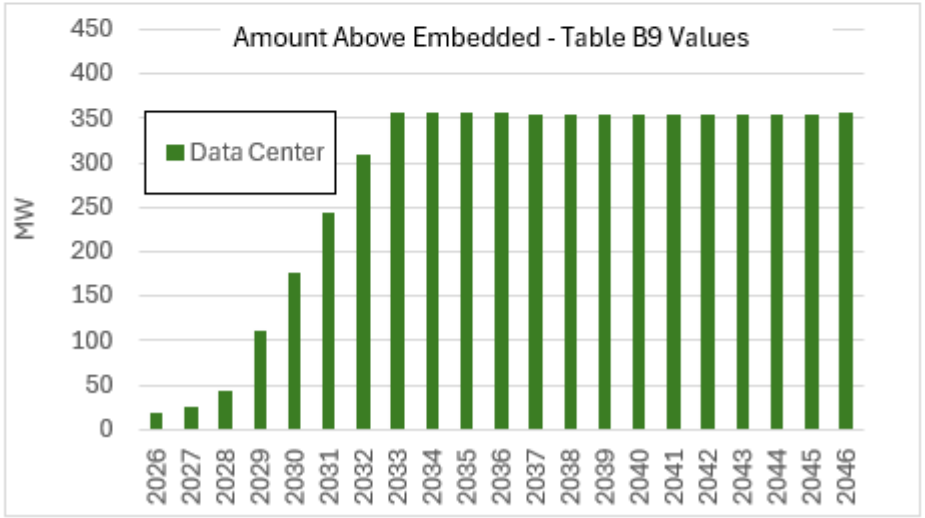
ATSI



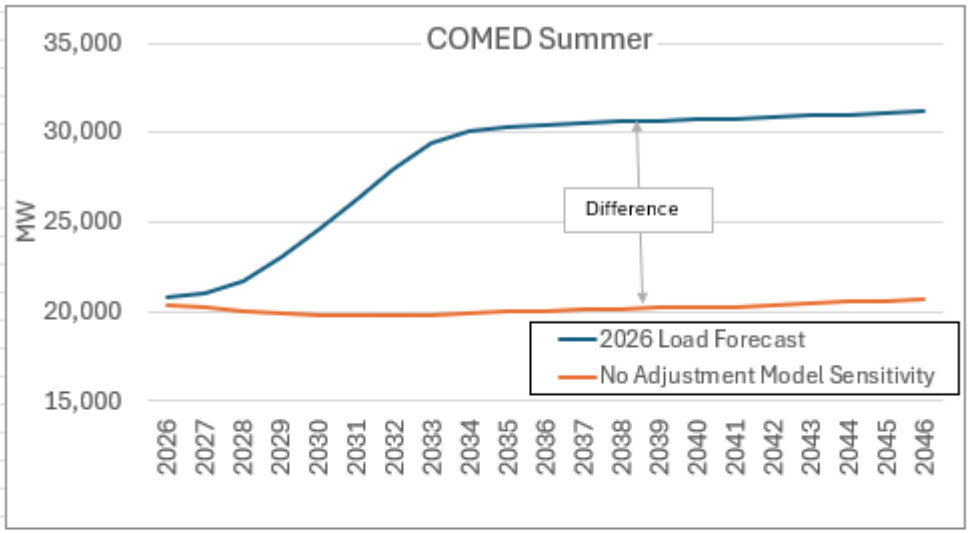


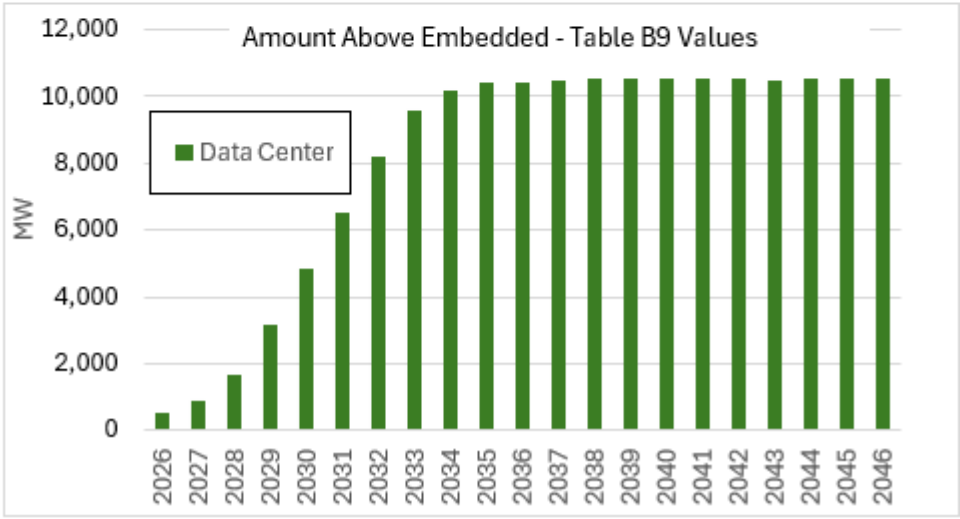
BGE


BGE Summer
MW
7,400
7,200
7,000
6,800
6,600
6,400
6,200
6,000
Difference
2026 Load Forecast
No Adjustment Model Sensitivity
2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046

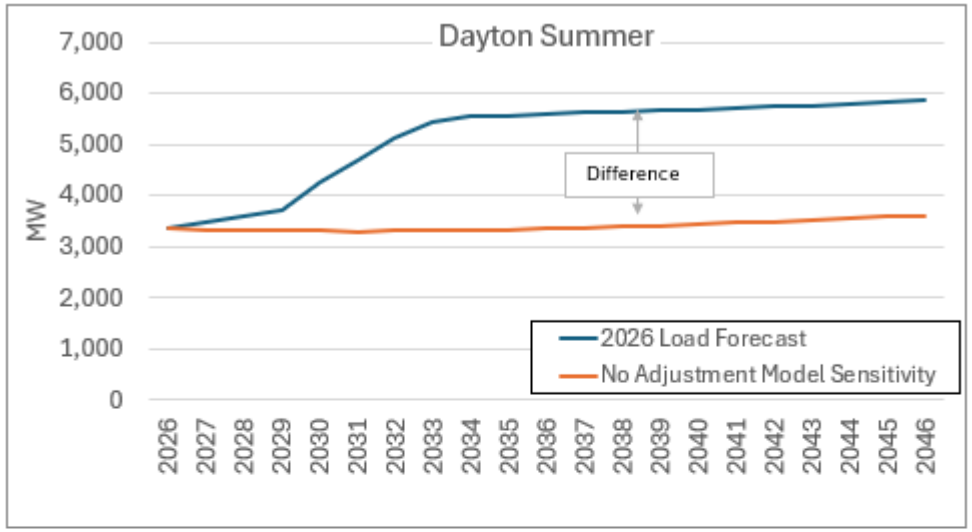

Amount Above Embedded - Table B9 Values
MW
450
400
350
300
250
200
150
100
50
0
Data Center
2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046

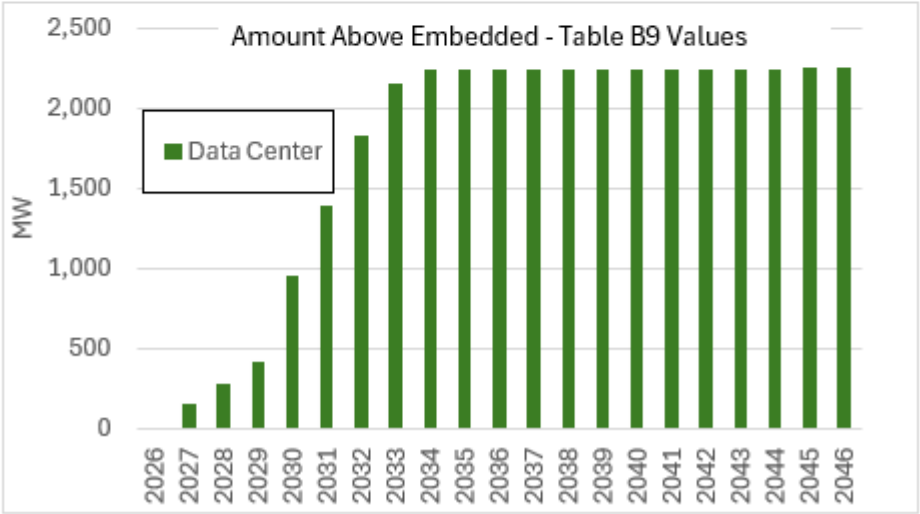
COMED



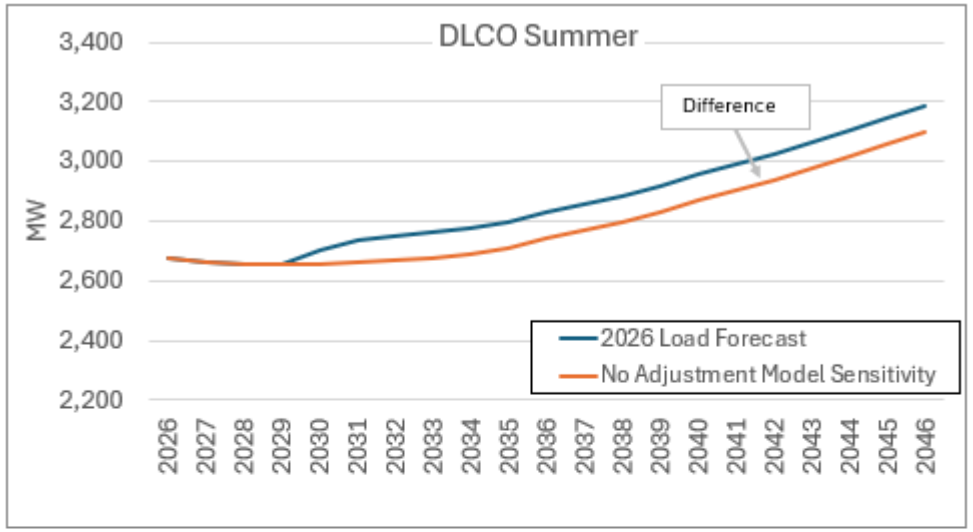


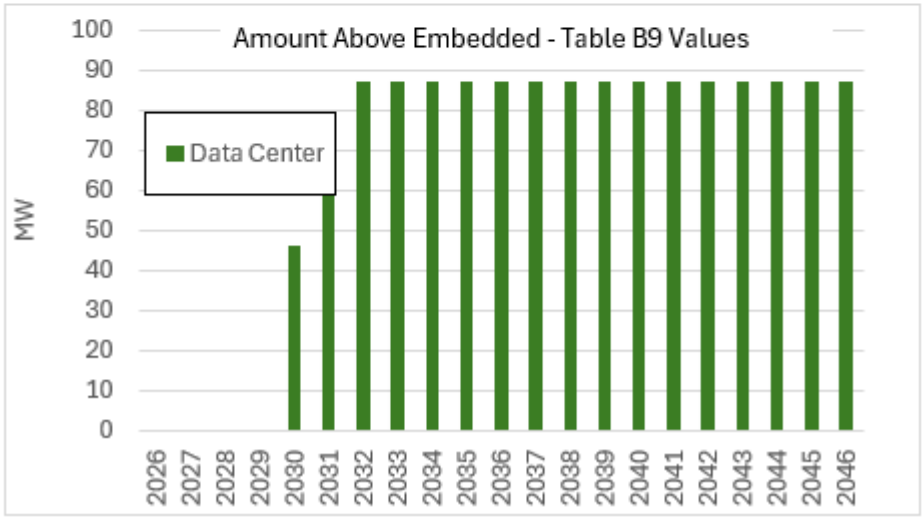
DAYTON



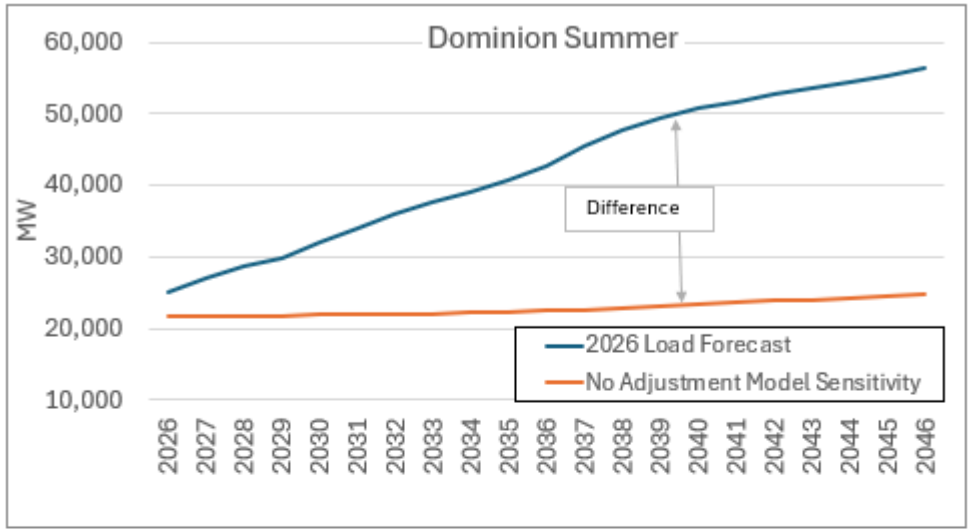


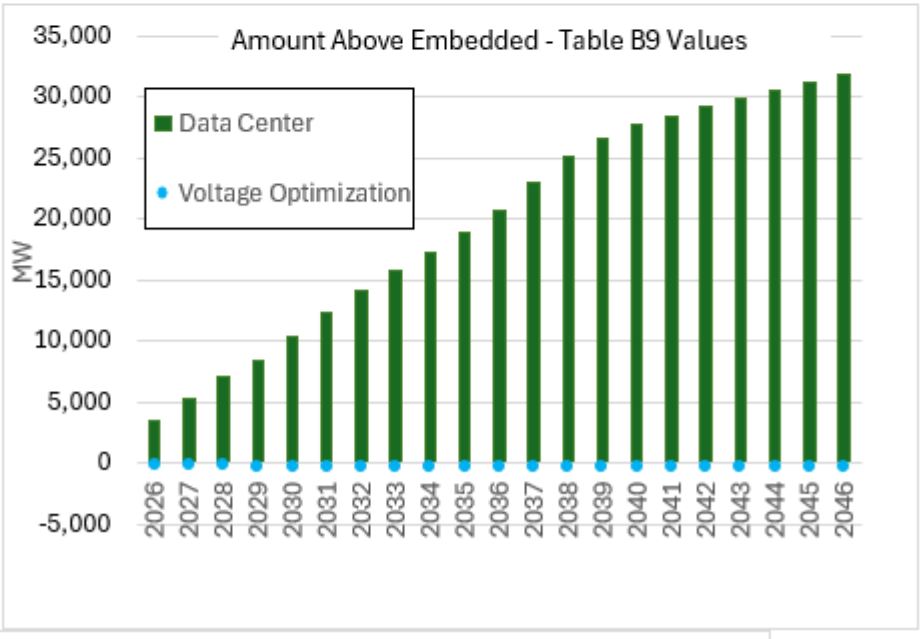
DLCO



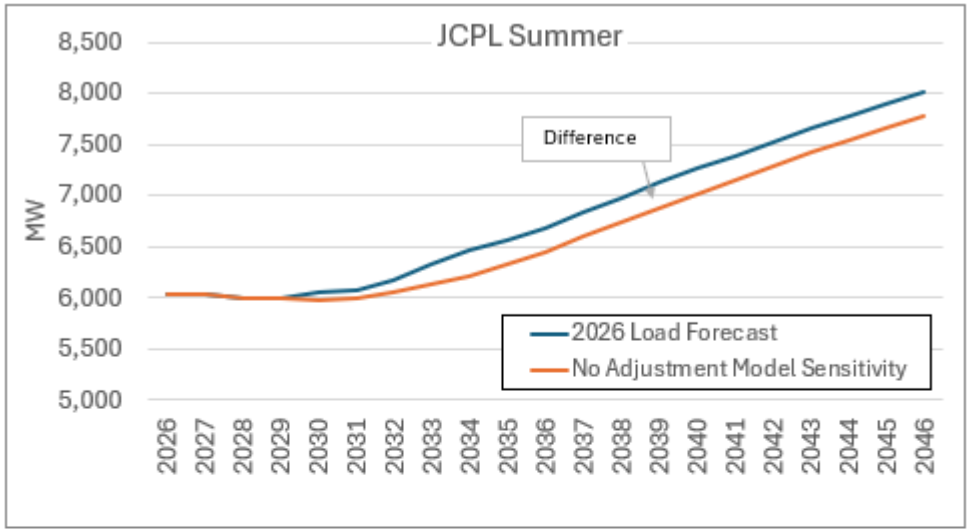


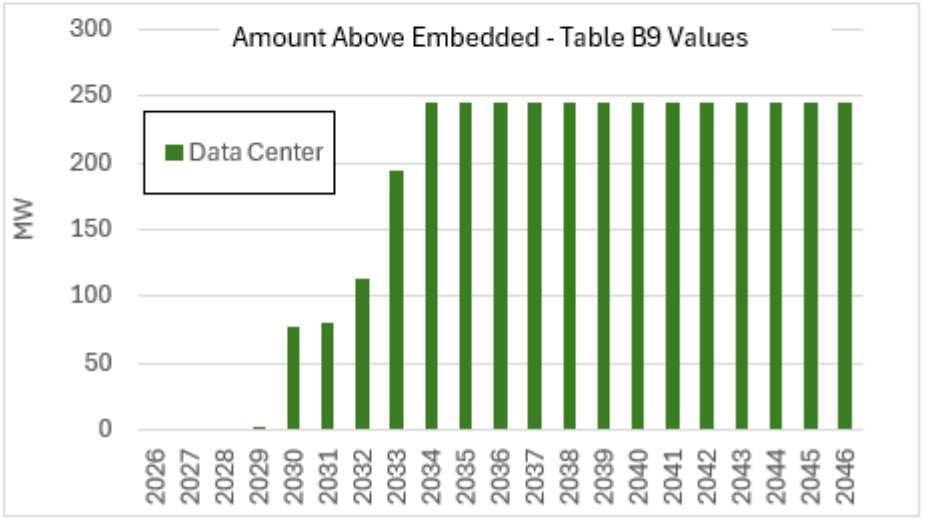
DOMINION



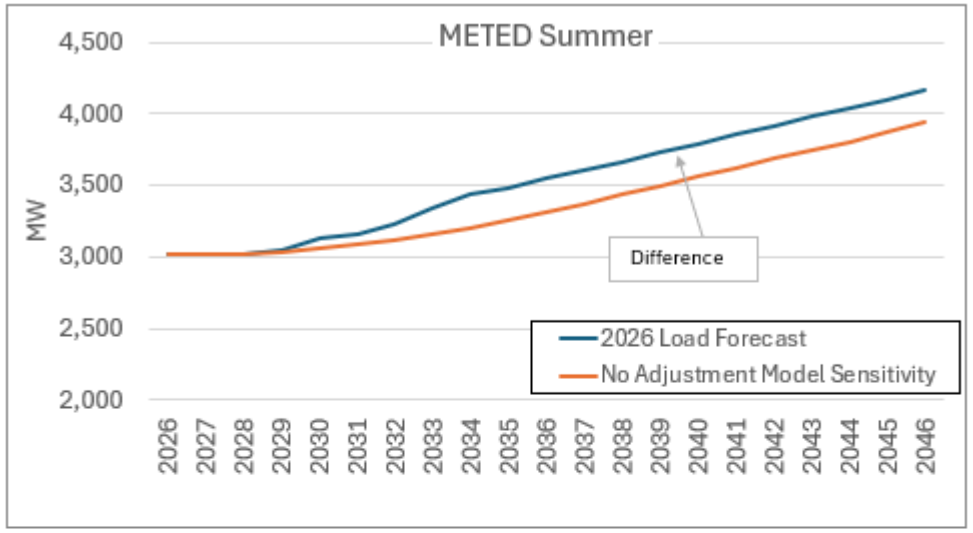


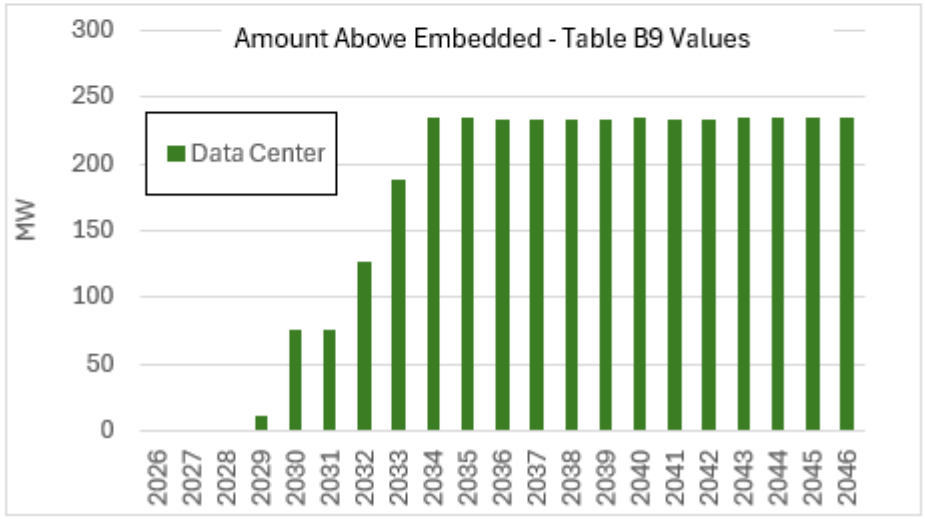
JCPL



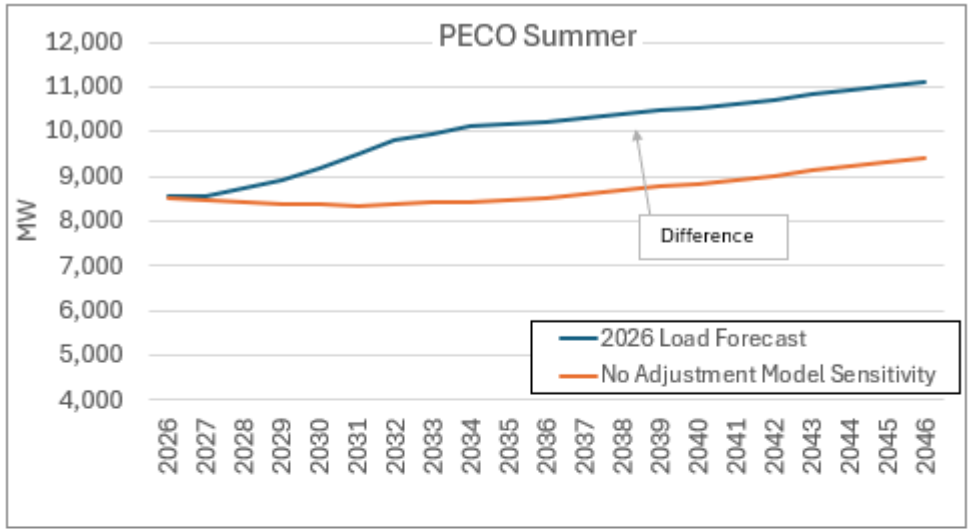


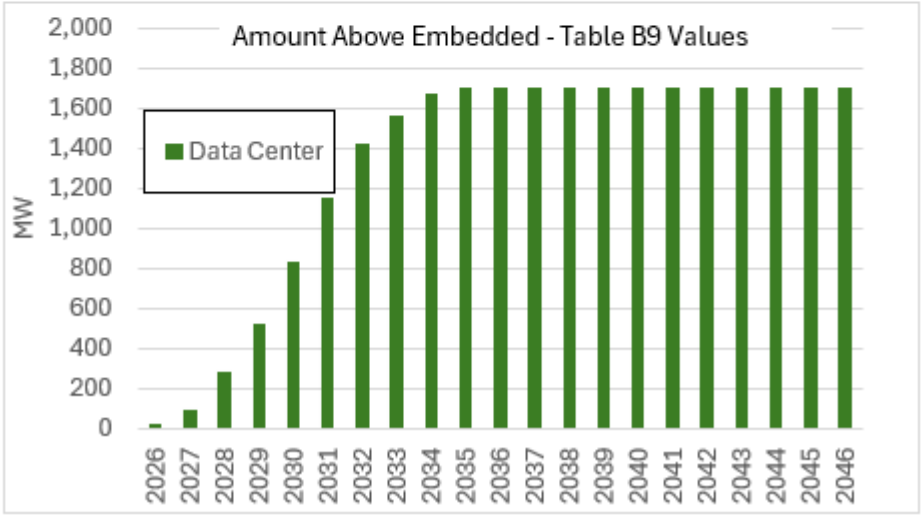
METED

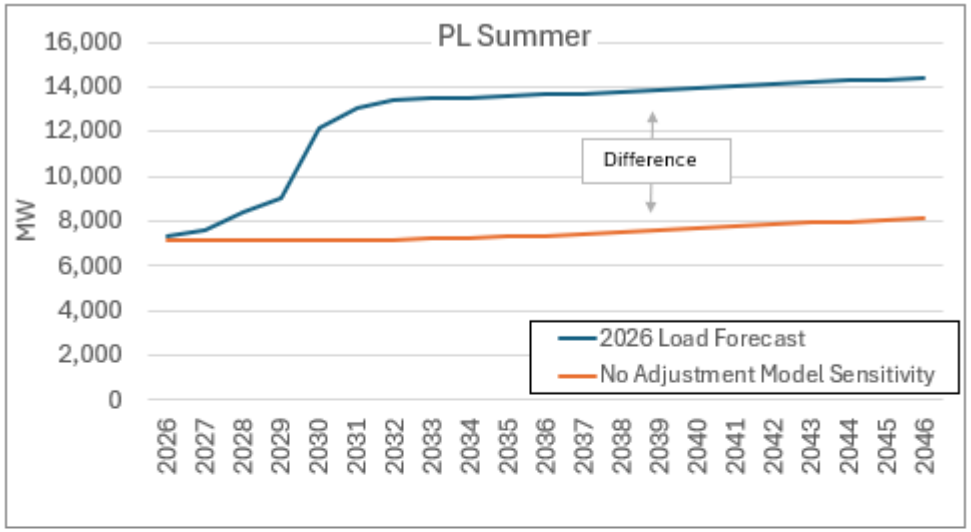


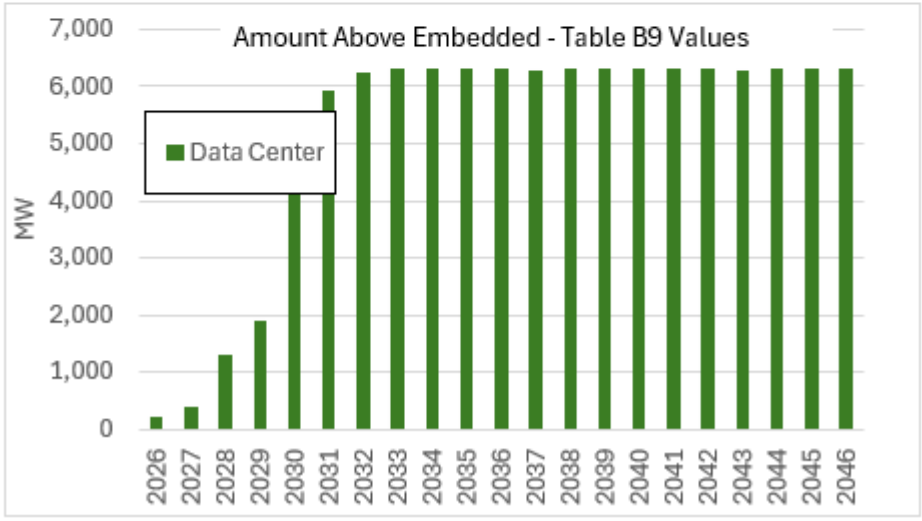


PECO

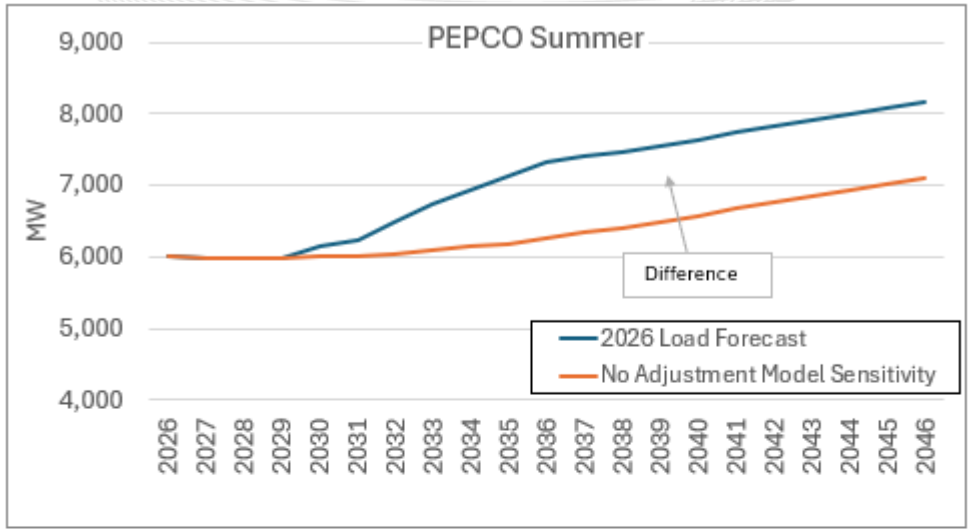


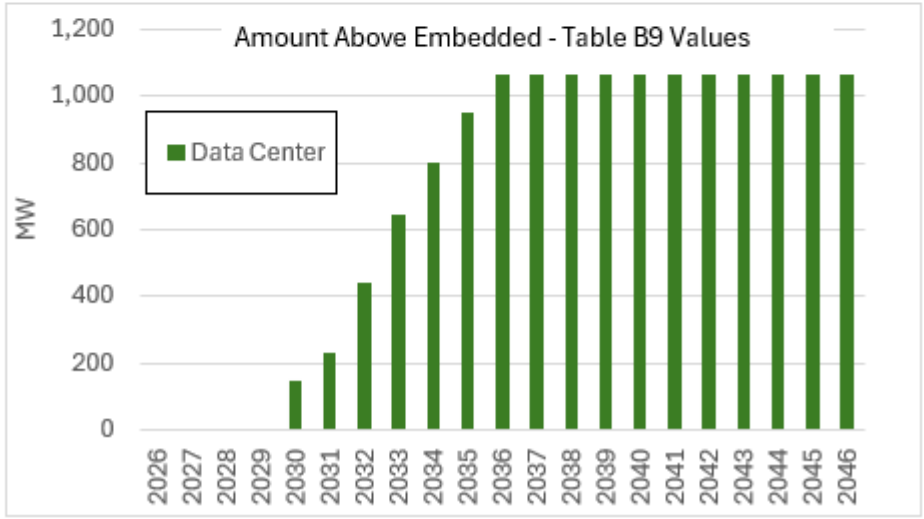


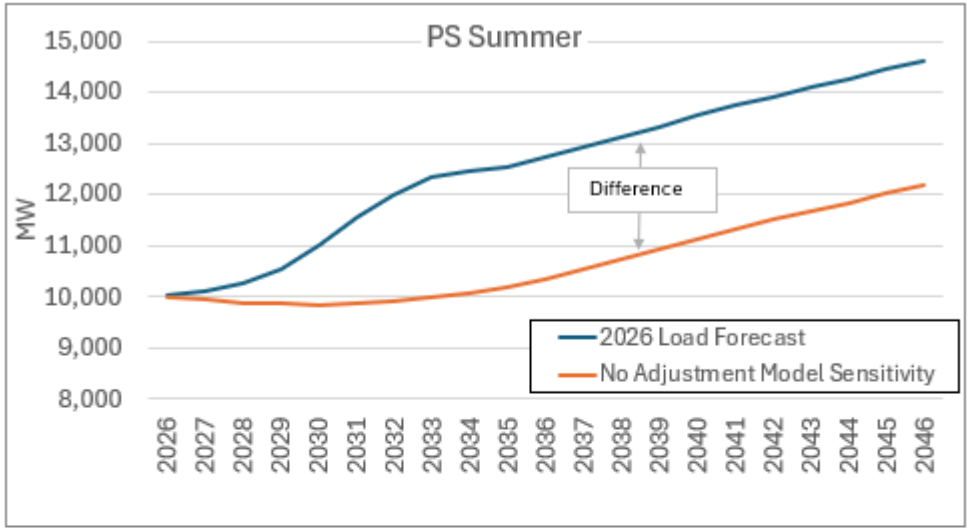

PL Summer
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
MW
Difference
2026 Load Forecast
No Adjustment Model Sensitivity
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046

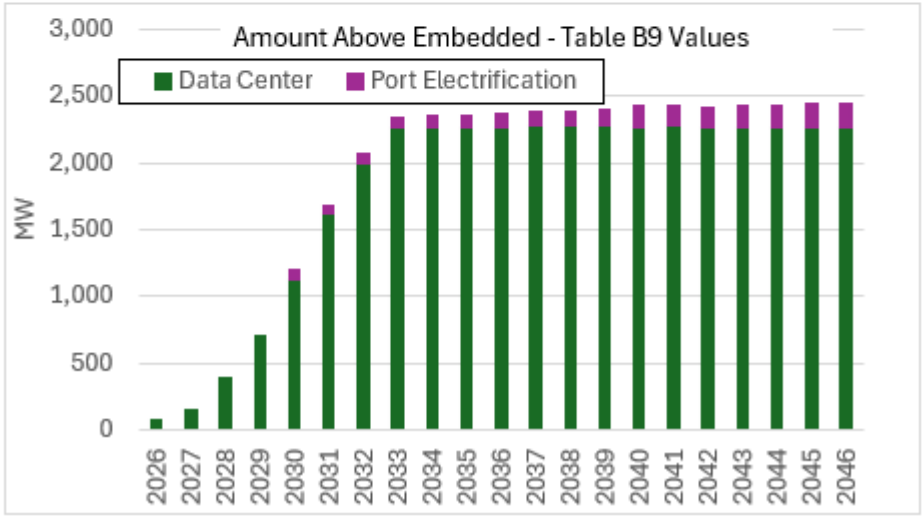

Amount Above Embedded - Table B9 Values
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
MW
Data Center
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046

PEPCO



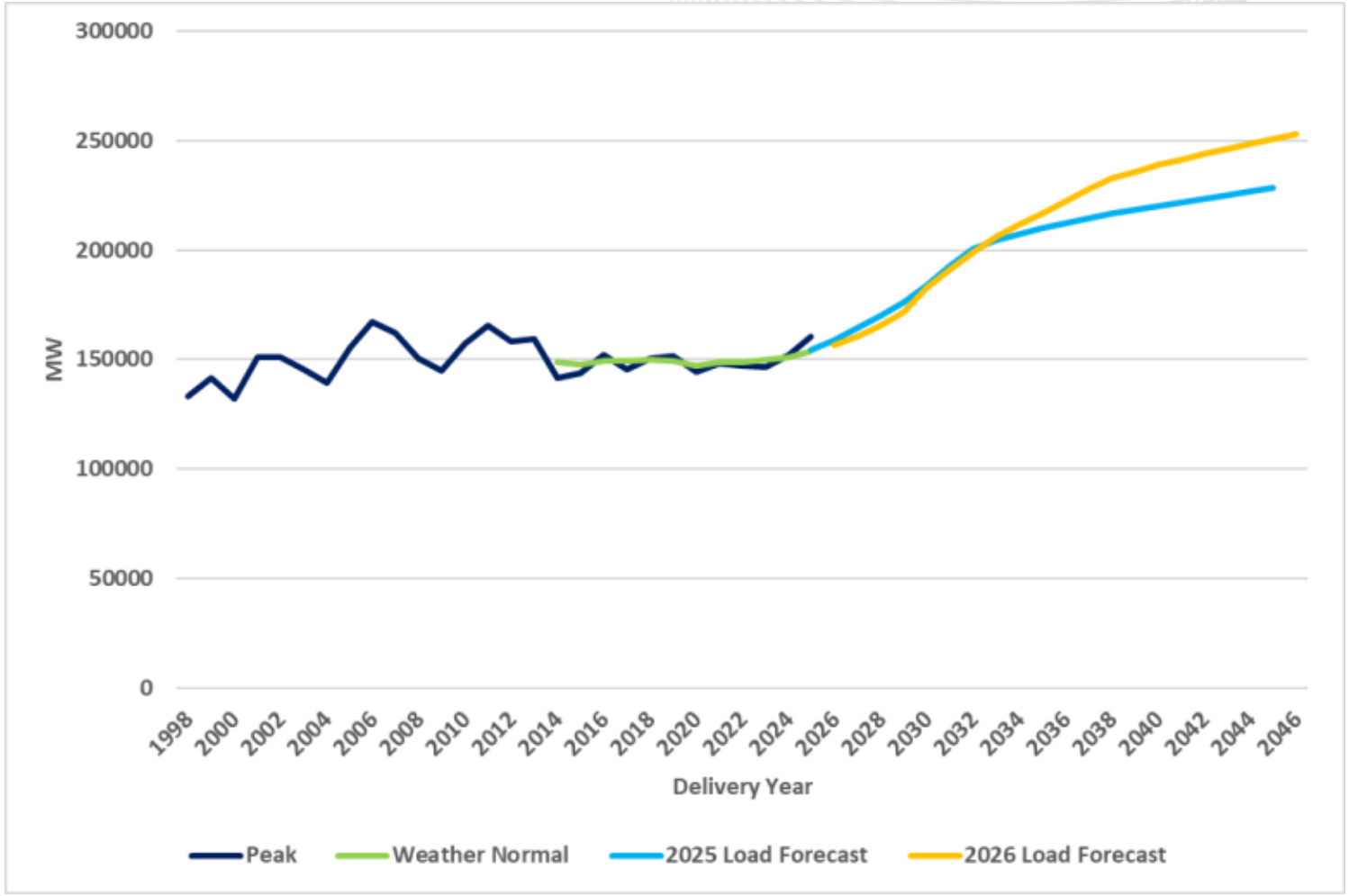



PS Summer
15,000
14,000
13,000
12,000
11,000
10,000
9,000
8,000
MW
Difference
2026 Load Forecast
No Adjustment Model Sensitivity
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046


Amount Above Embedded - Table B9 Values
3,000
2,500
2,000
1,500
1,000
500
0
MW
Data Center
Port Electrification
2026
2027
2028
2029
2030
2031
2032
2033
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044
2045
2046

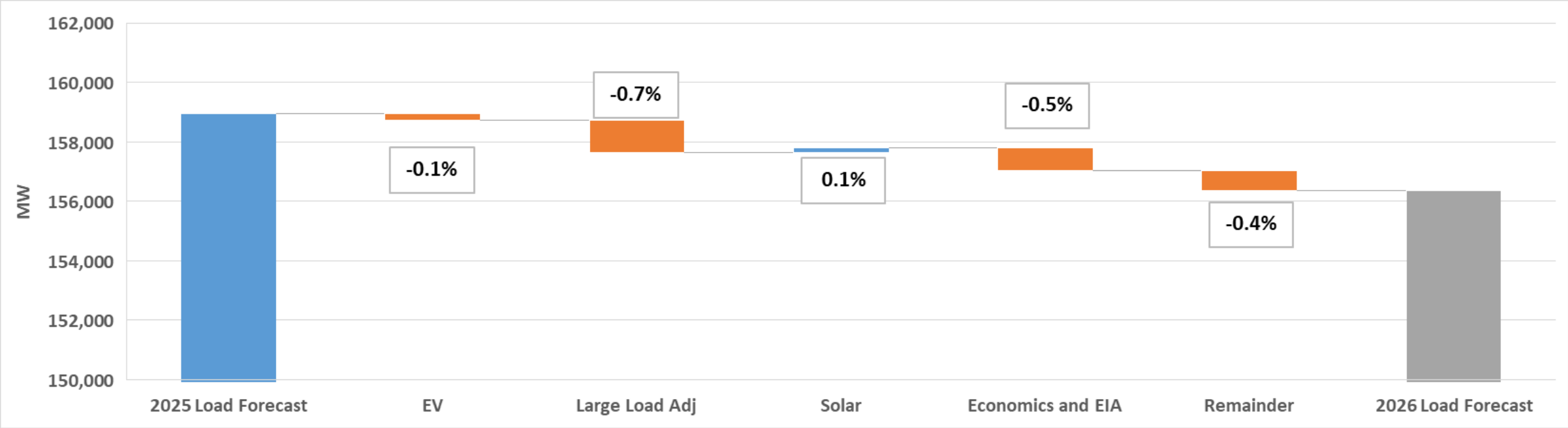
2026 Long-Term Load Forecast

Summer Forecast Comparison 2025 vs 2026



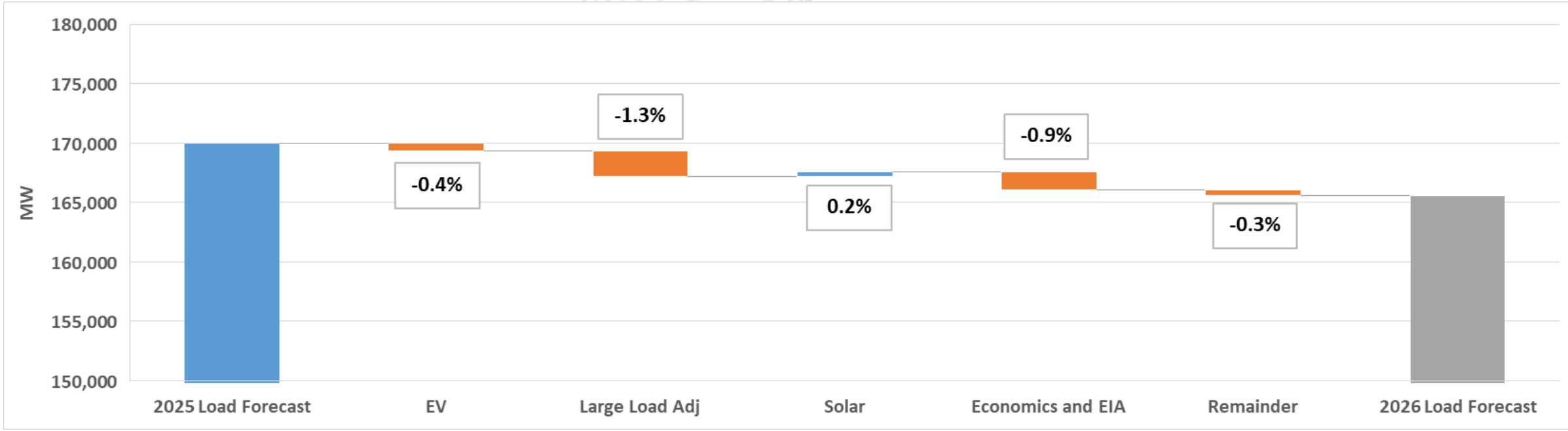
- 20-year/ Annualized Growth Rate
  - 2025 Forecast: 2.0%
  - 2026 Forecast: 2.4%
- Select year comparisons (2026 Forecast vs 2025 Forecast)
  - 2027: -2.3% (~3,700 MW)
  - 2029: -2.7% (~4,600 MW)
  - 2031: -0.9% (~1,600 MW)
  - 2040: +7.8% (~18,600 MW)

Summer 2026 Forecast Waterfall Comparison



*Economics and EIA is the impact of new EIA end use data as well as new economics
**Remainder is the impact of re-estimation of R,C,I models and hourly models

Summer 2028 Forecast Waterfall Comparison



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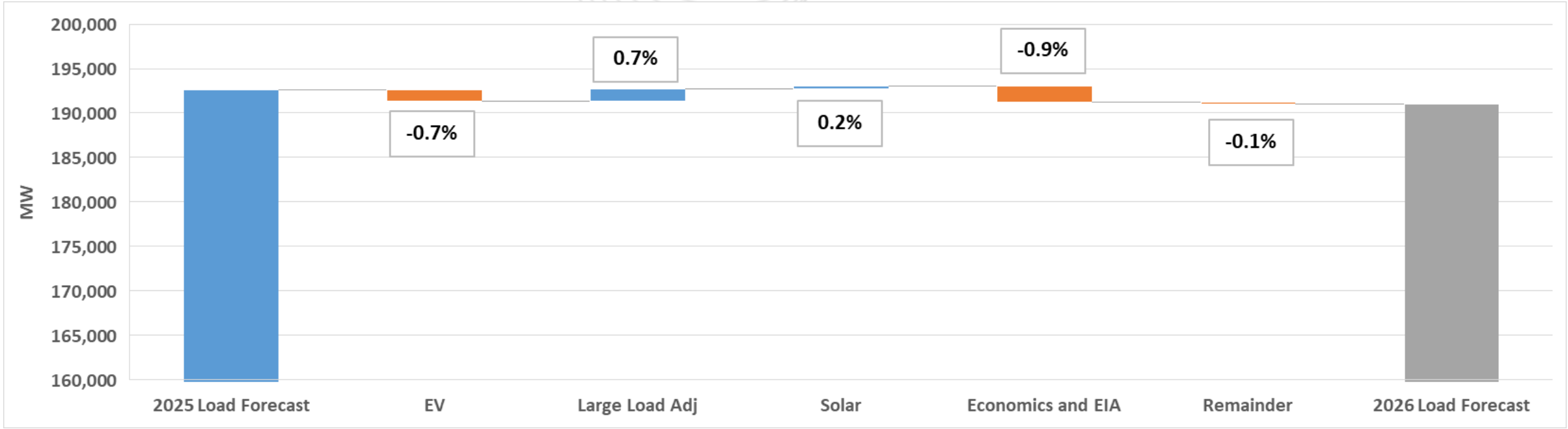
Summer 2031 Forecast Waterfall Comparison



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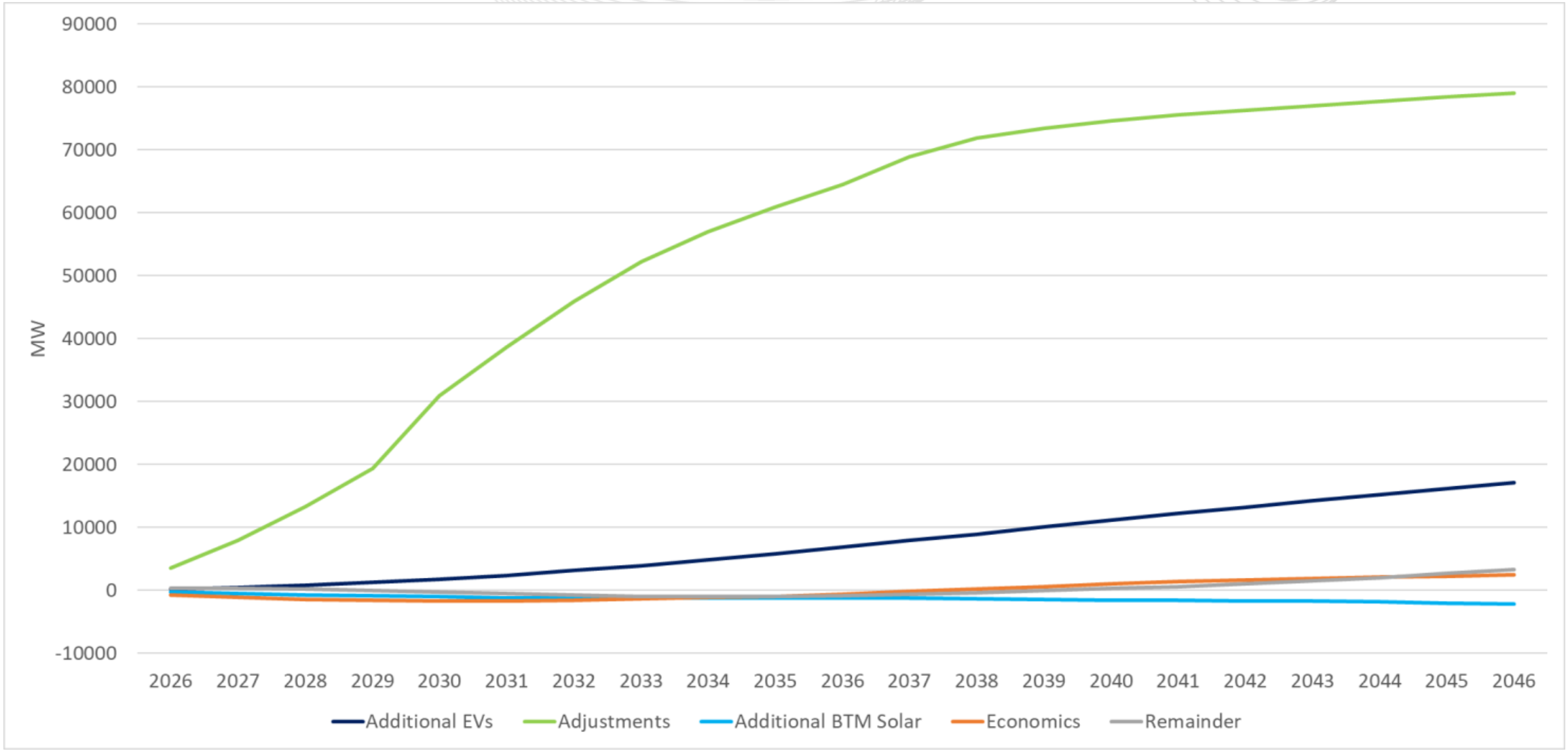
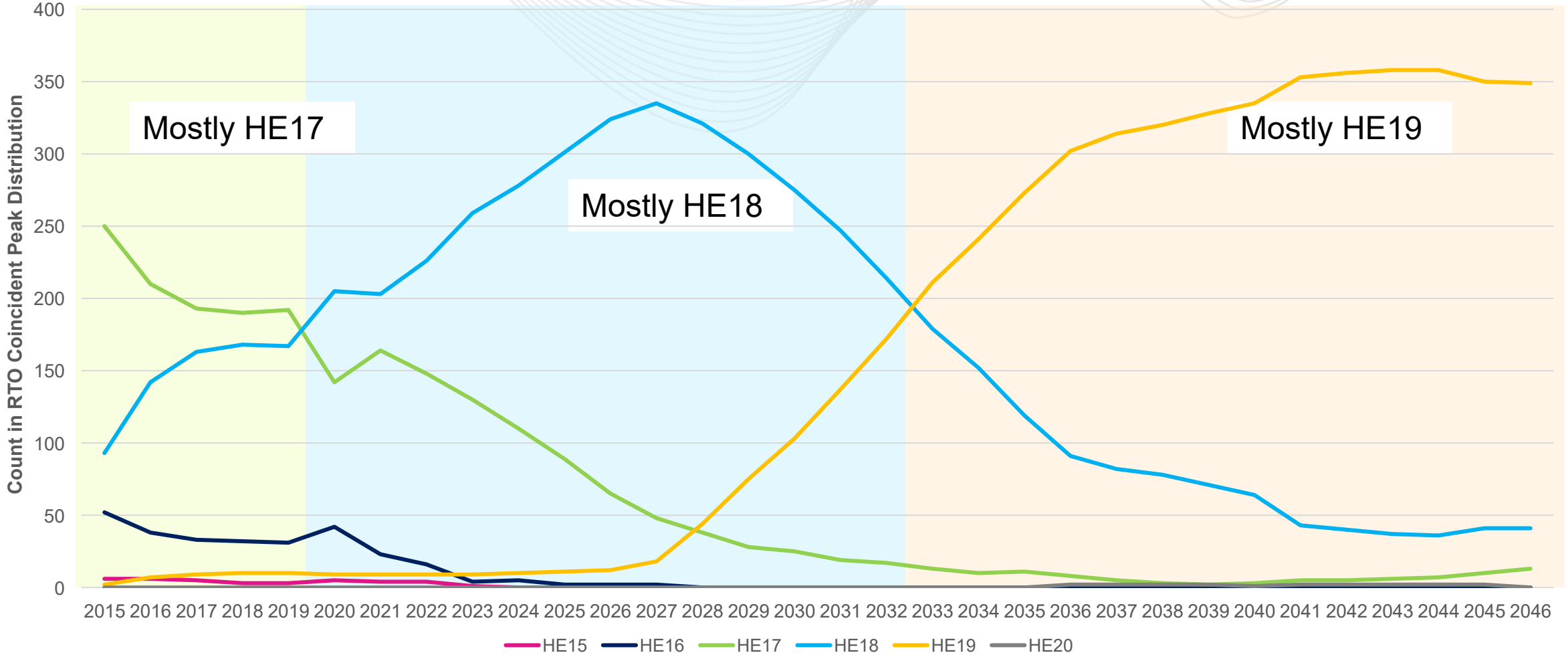
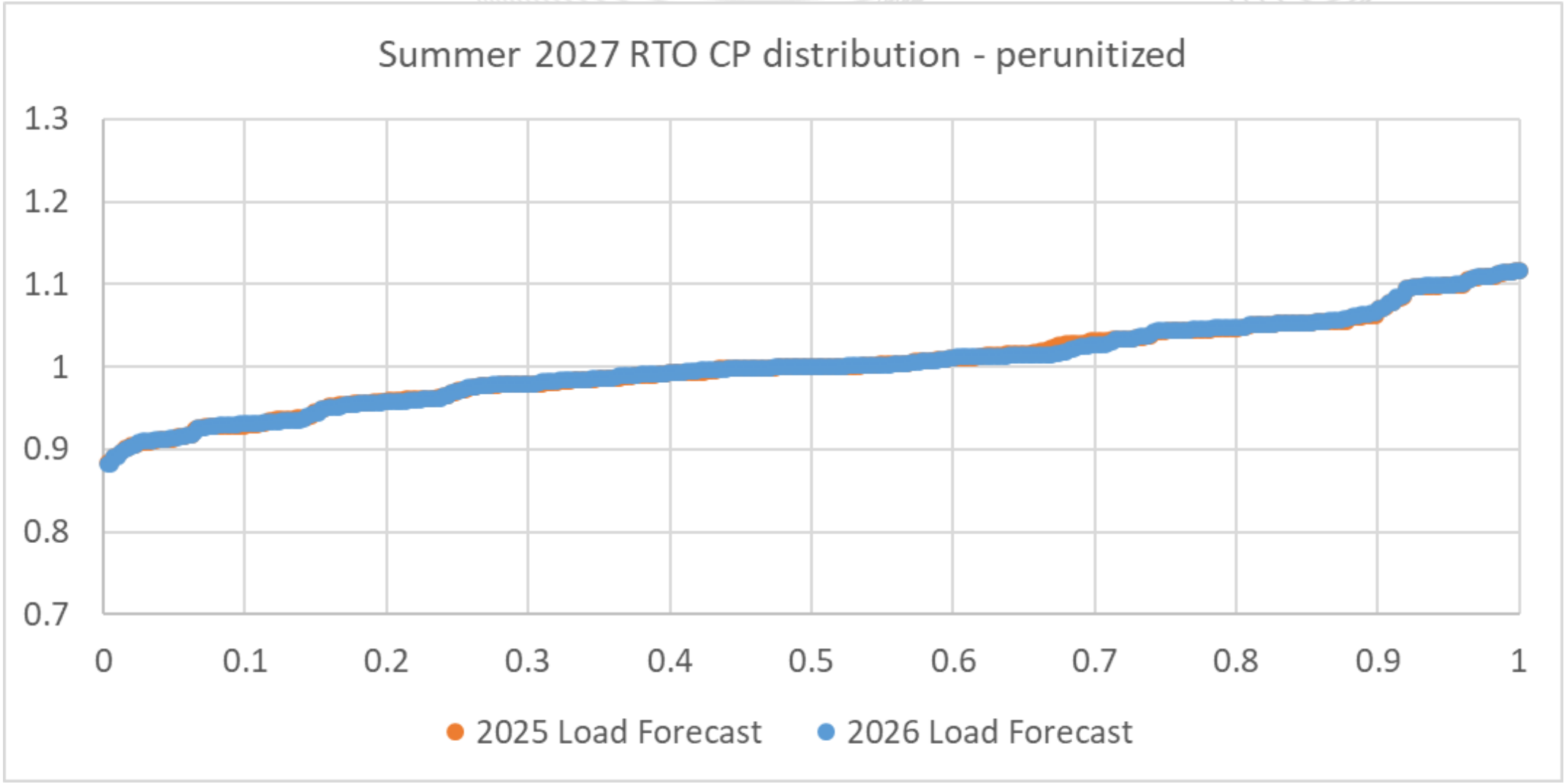
Summer Forecast Flow – Additions and Subtractions



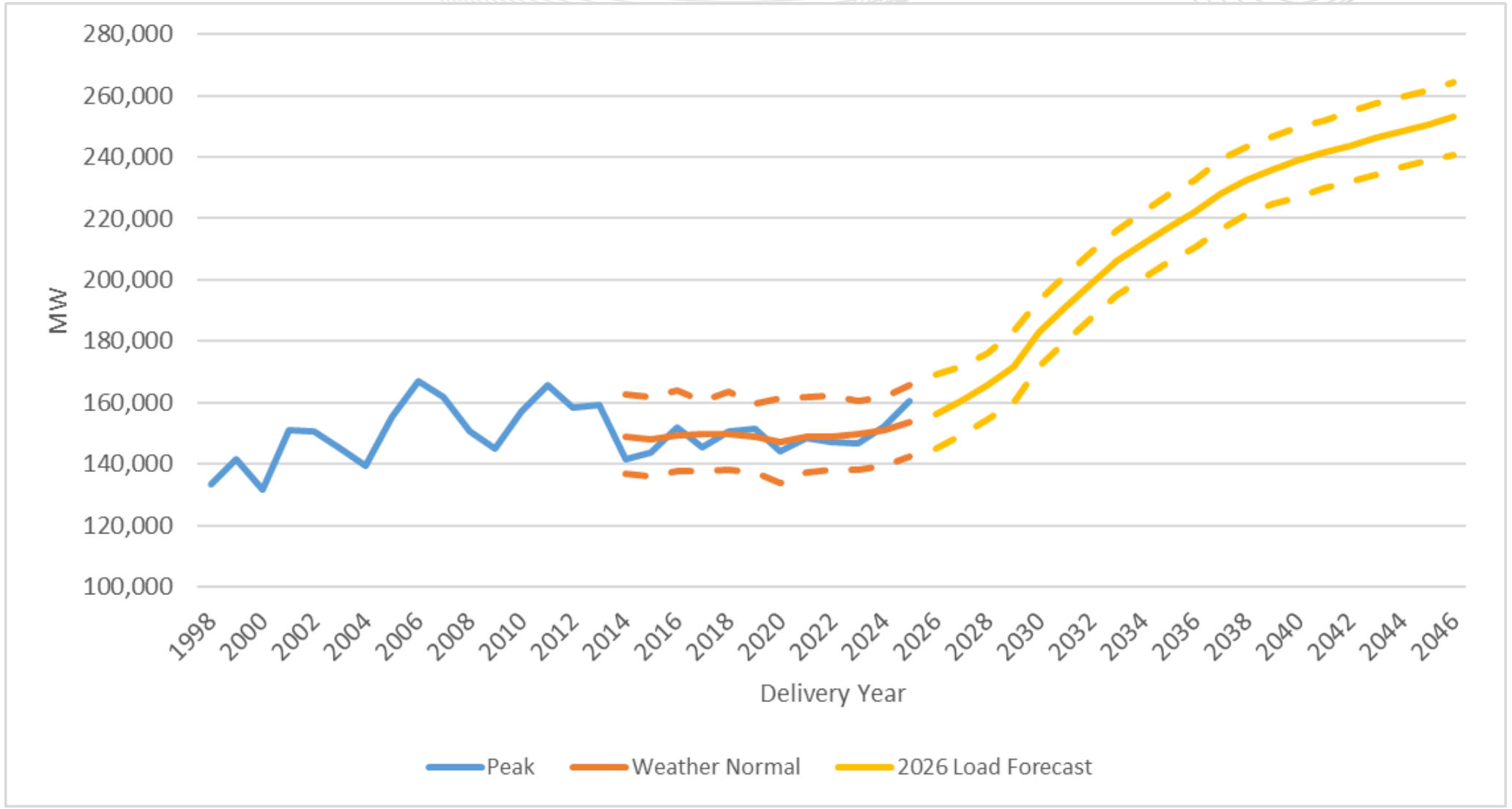
Summer Forecast – Peak Timing



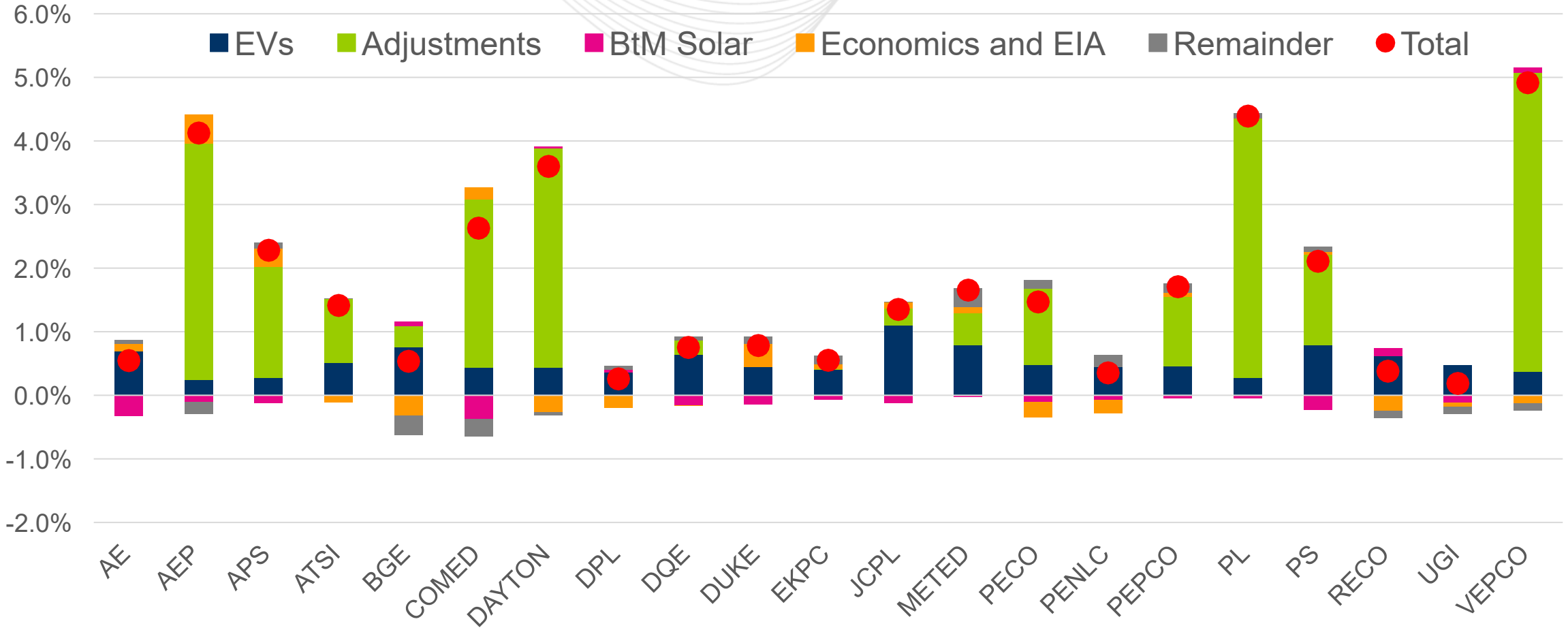
2027 Summer Peak Distribution Comparison
50/50 Forecast = 1.0



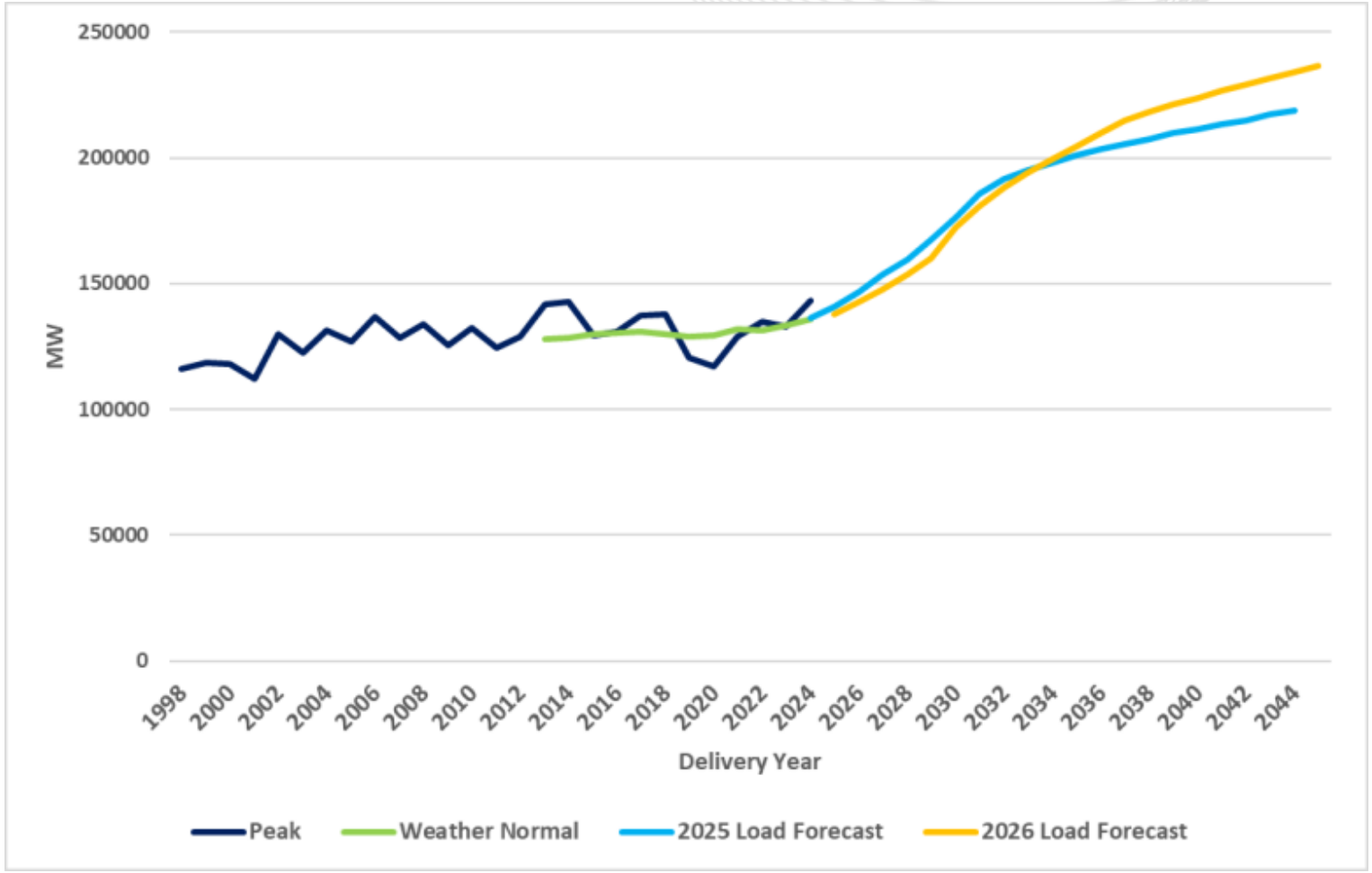
2026 Summer Forecast
w/ 10th and 90th Percentile Weather Bands



Summer Peak Average Annual Growth (2026-2041)



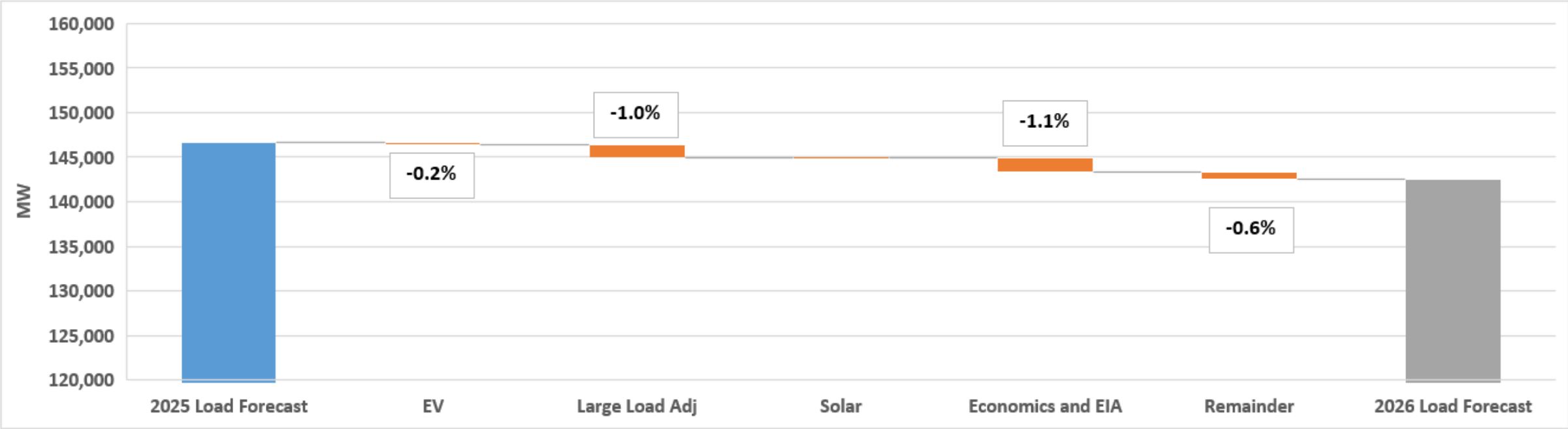
Winter Forecast Comparison 2025 vs 2026



- 20-year Annualized Growth Rate
  - 2025 Forecast : 2.4%
  - 2026 Forecast : 2.7%

- Select year comparisons (2026 Forecast vs 2025 Forecast)
  - 2027: -3.9% (~5,800MW)
  - 2029: -4.4% (~7,100MW)
  - 2031: -2.6% (~4,700MW)
  - 2039: +5.2% (~11,500MW)

Winter 2026/2027 Forecast Waterfall Comparison



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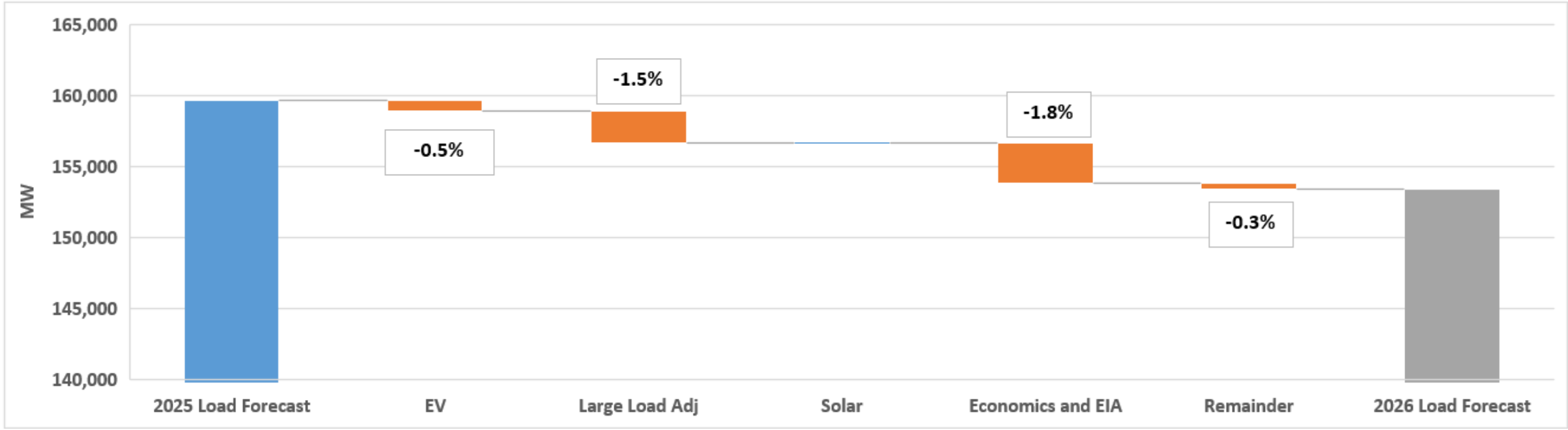
Winter 2028/2029 Forecast Waterfall Comparison



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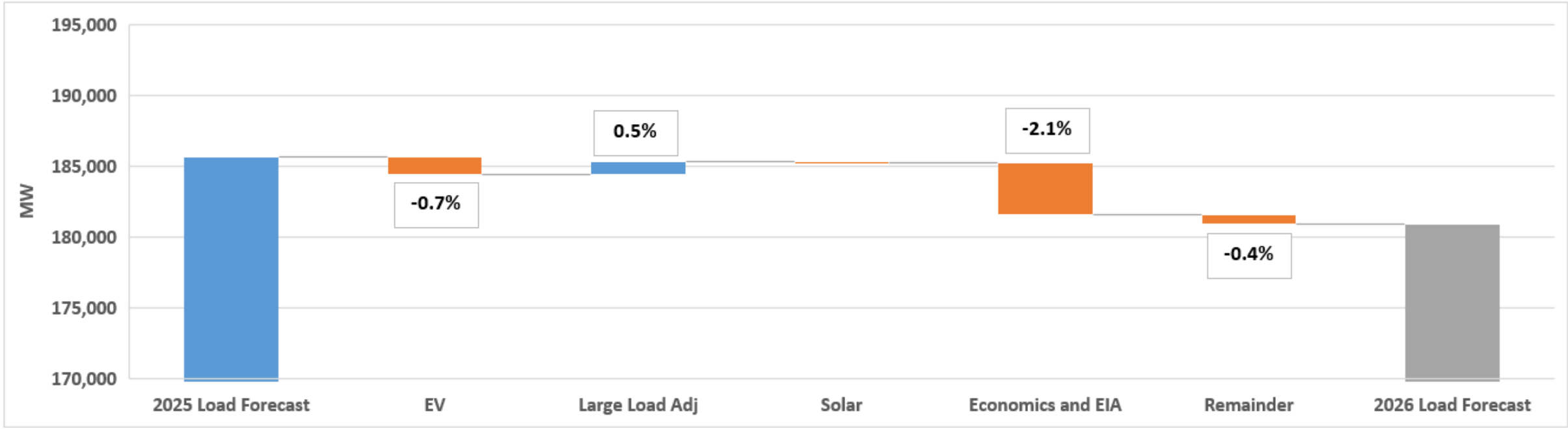
Winter 2031/2032 Forecast Waterfall Comparison



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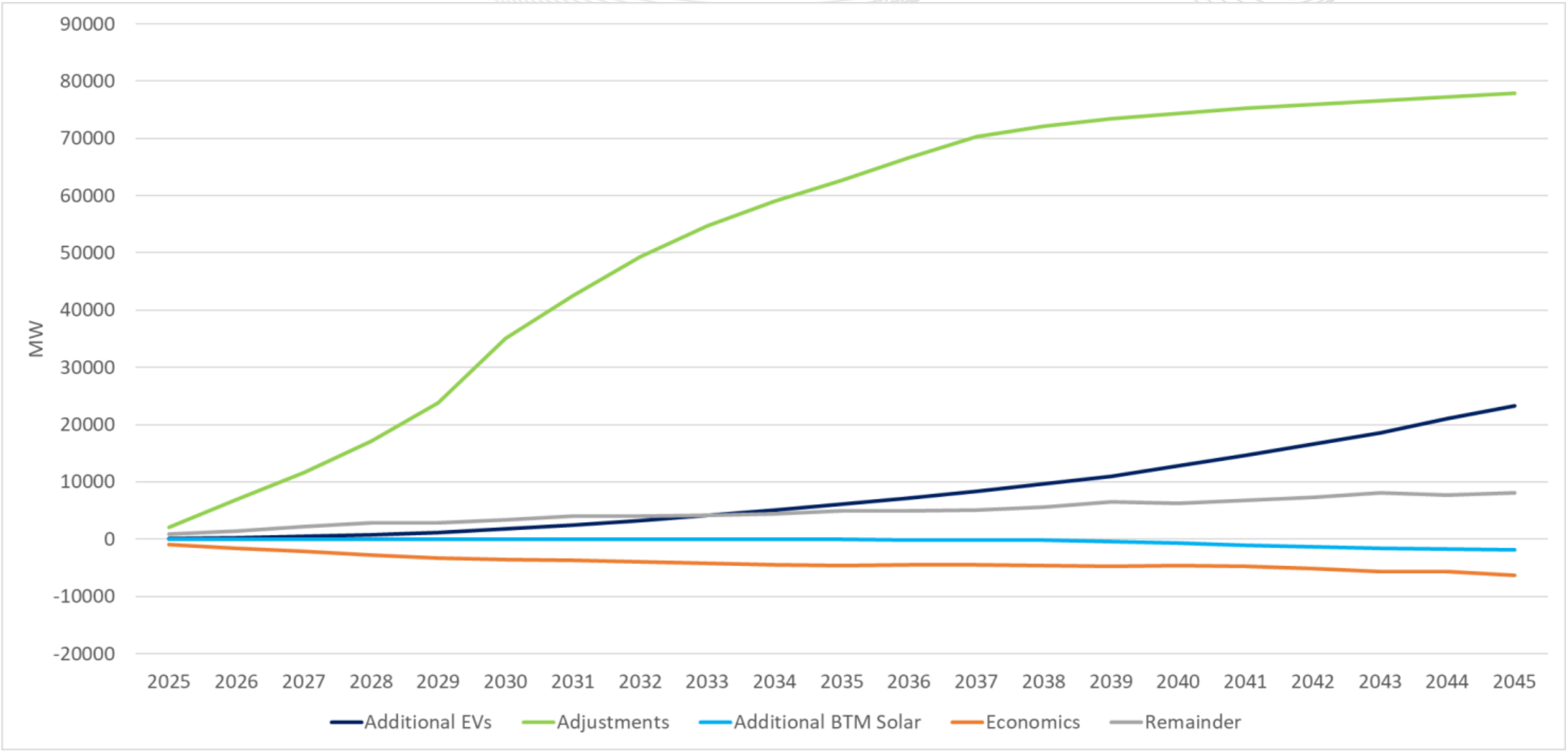
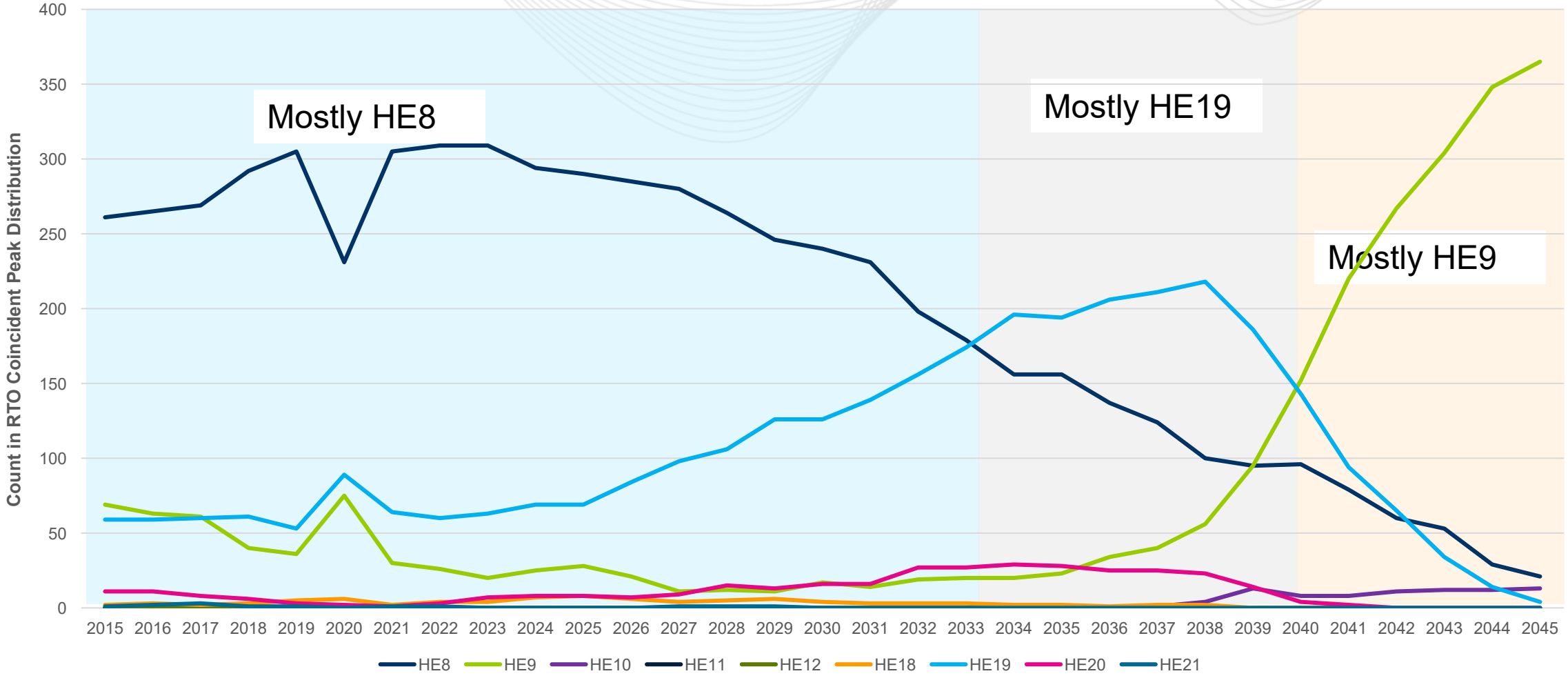
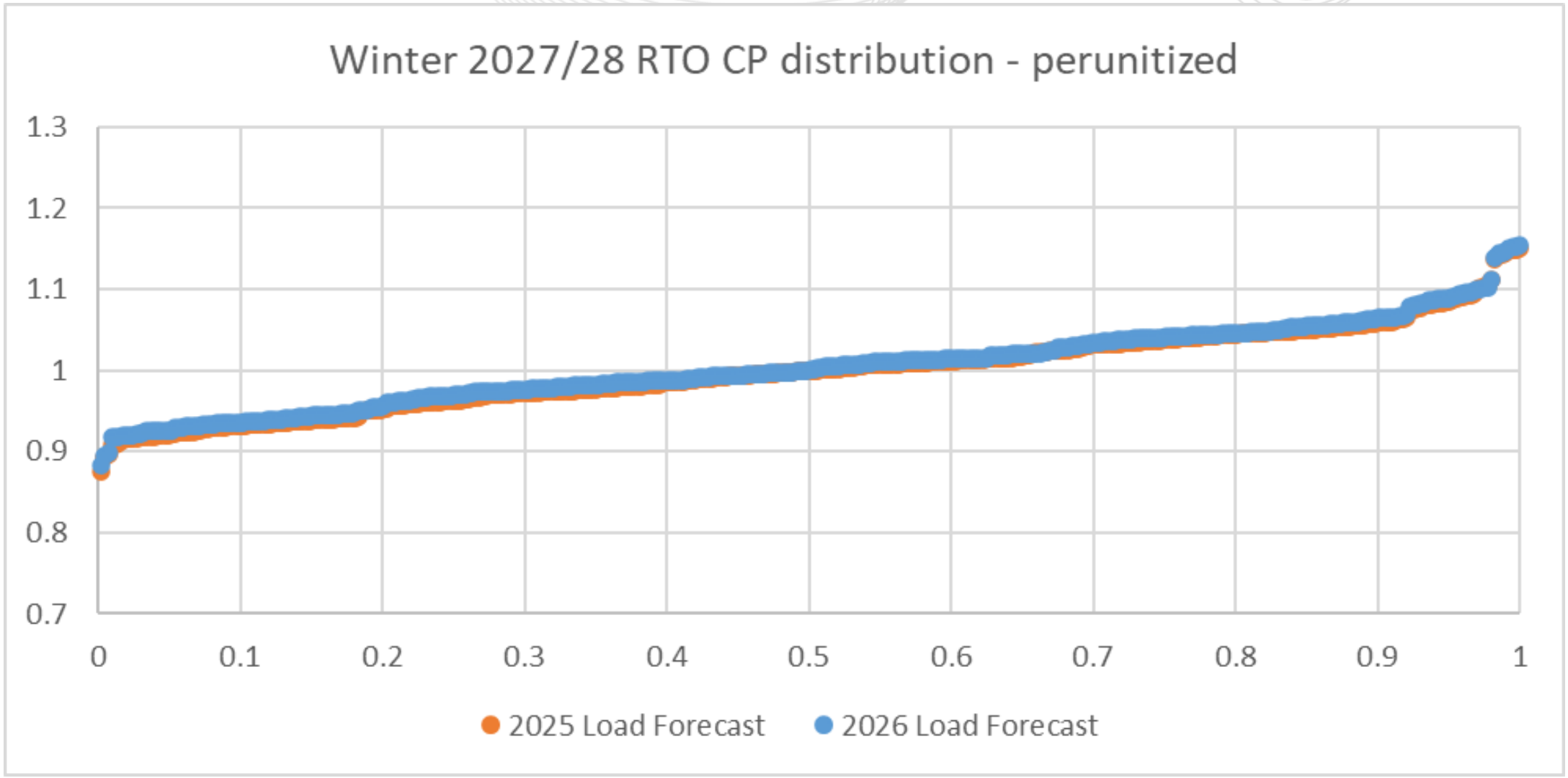
Winter Forecast Flow – Additions and Subtractions



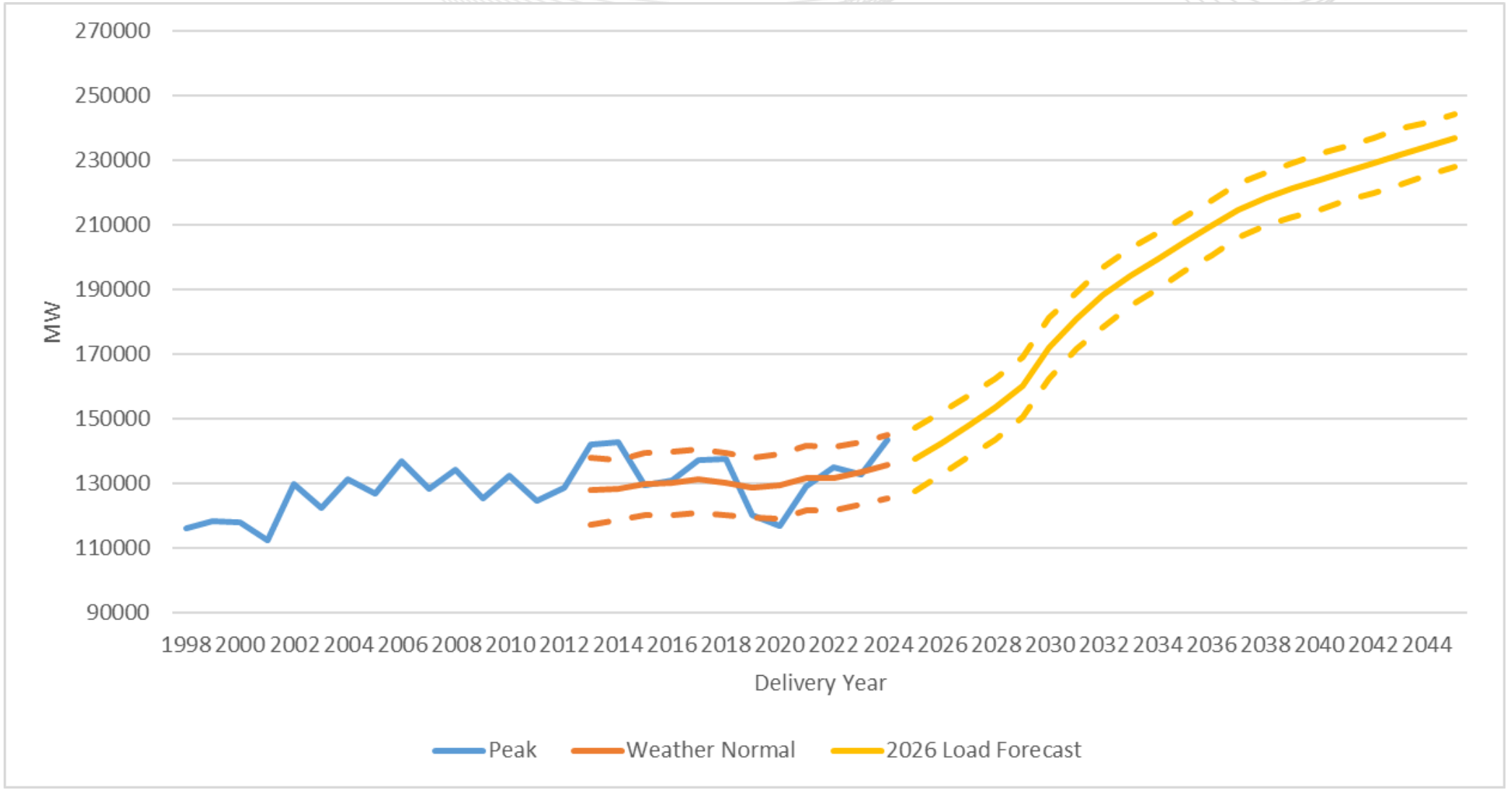
Winter Forecast – Peak Timing



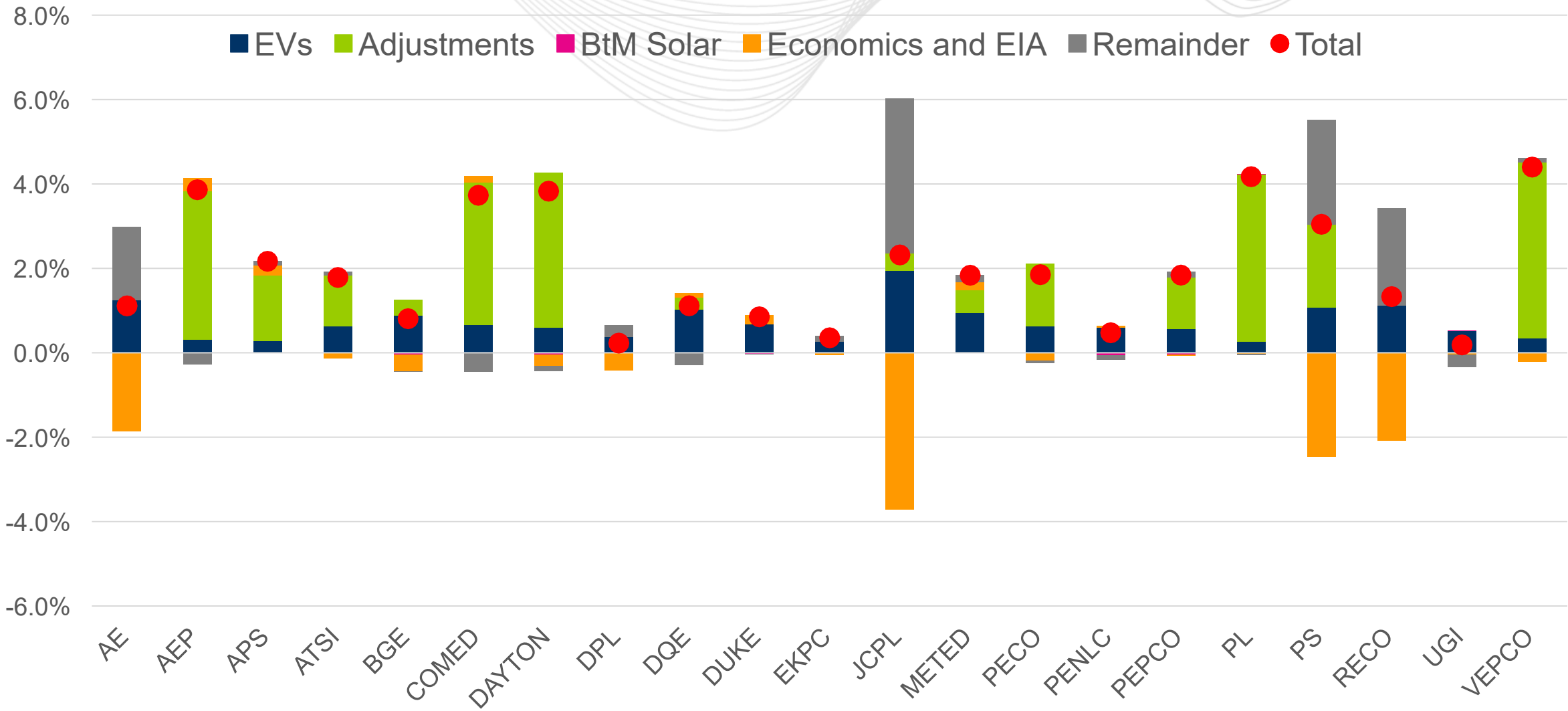
2027/28 Winter Peak Distribution Comparison
50/50 Forecast = 1.0



2026 Winter Forecast
w/ 10th and 90th Percentile Weather Bands



Winter Peak Average Annual Growth (2026-2041)



Next Steps

- Final report is posted with a number of supplemental data items
- Review with Planning Committee (2/3/2026)

- Additional files to be posted:
  - Load Report Supplement
  - EDC/LSE methodology documents

Contact

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Molly.Mooney@pjm.com

Load_Analysis_Team@pjm.com

2026 PJM Long-Term Load Forecast

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