



# 2021 Preliminary PJM Load Forecast

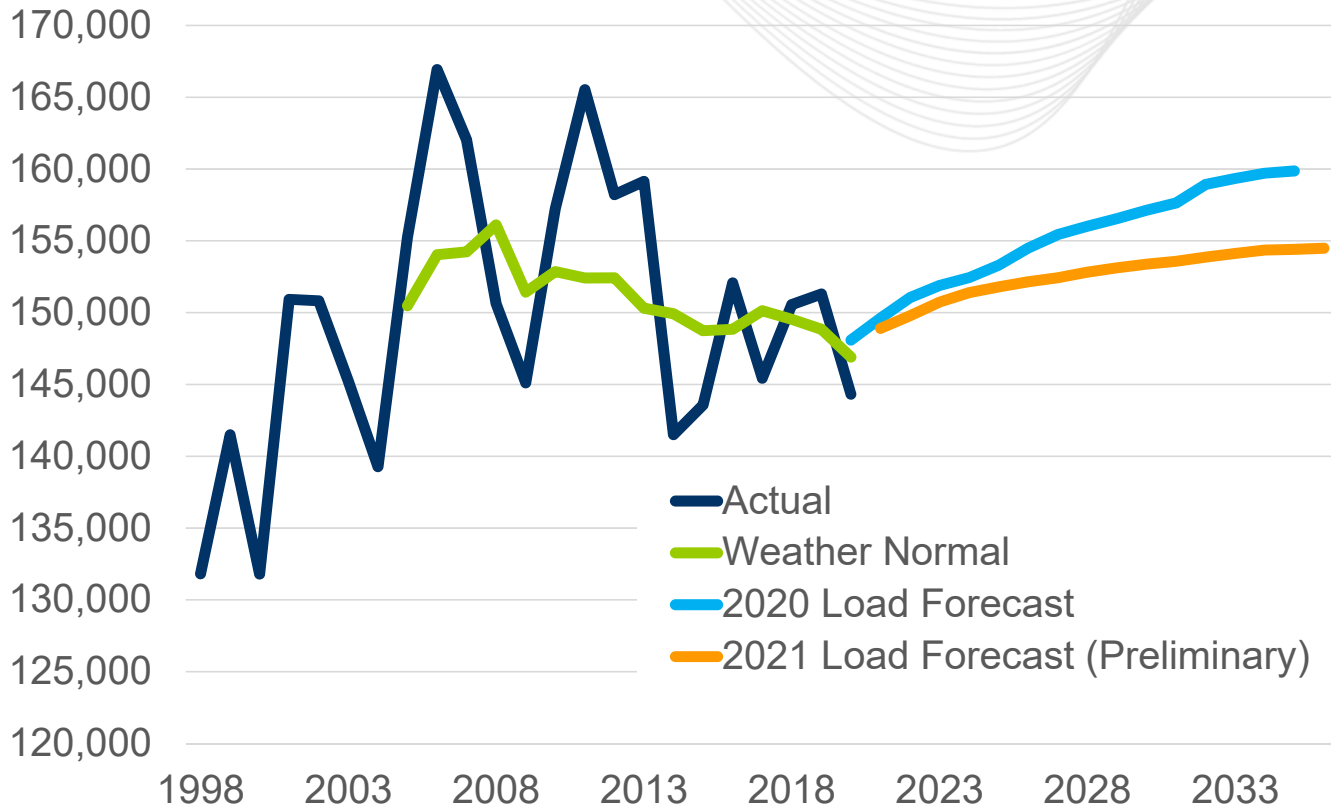
Andrew Gledhill, Sr Analyst  
Resource Adequacy Planning

Planning Committee  
December 1, 2020

- Estimation Period: January 2011 through August 2020
- Weather Simulation: 1993 to 2019 (351 Scenarios)
- End Use Data: Based on Itron's 2020 release
  - Calibration 1998-2019 using EIA 861 data
- Economics: September 2020 vintage from Moody's Analytics
- AWS Solar Addbacks & IHS Solar Forecast (zonal & peak allocation by PJM)
- Forecast Adjustments – APS, BGE, COMED and Dominion



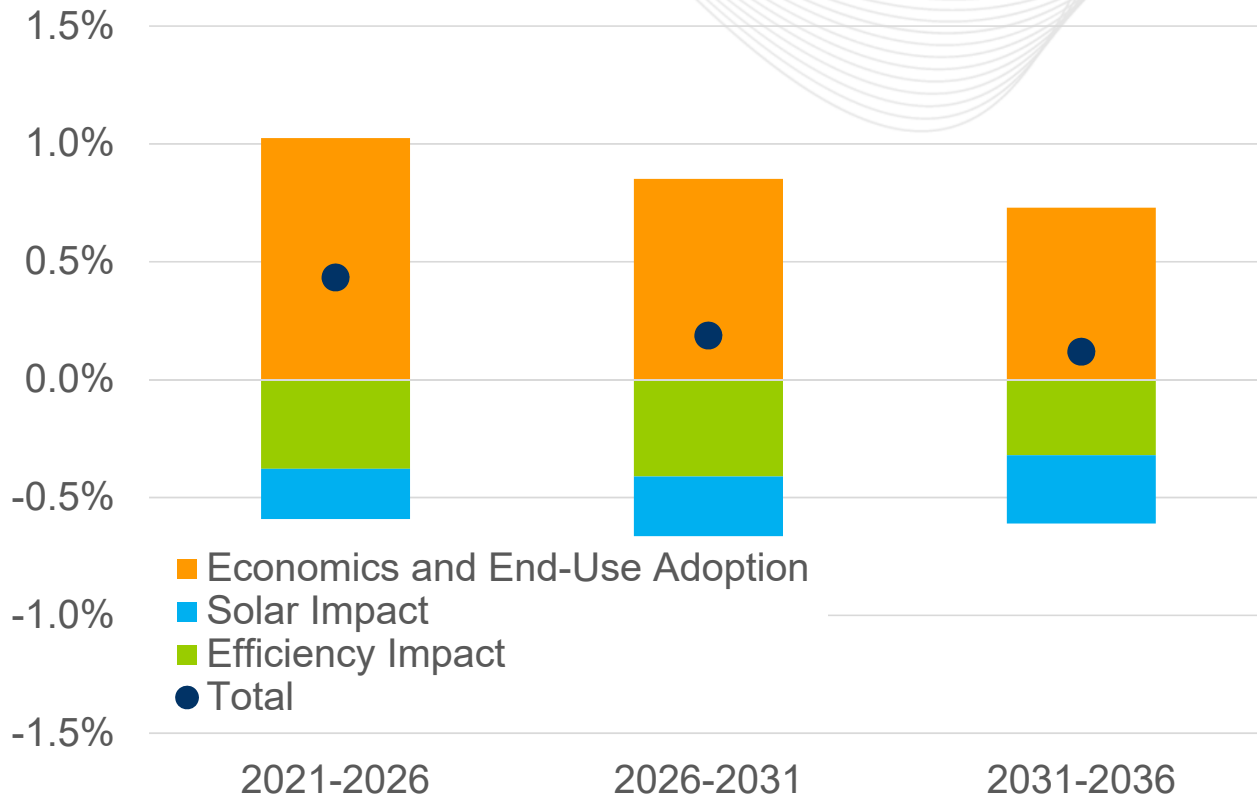
# 2021 PJM RTO Preliminary Summer Peak Forecast



- 15-year Annualized Growth Rate
  - 2020 LF: 0.5%
  - 2021 LF: 0.2%
- Select year comparisons (2021 LF vs 2020LF)
  - 2023: Down 0.8%
  - 2025: Down 1.0%
  - 2035: Down 3.4%



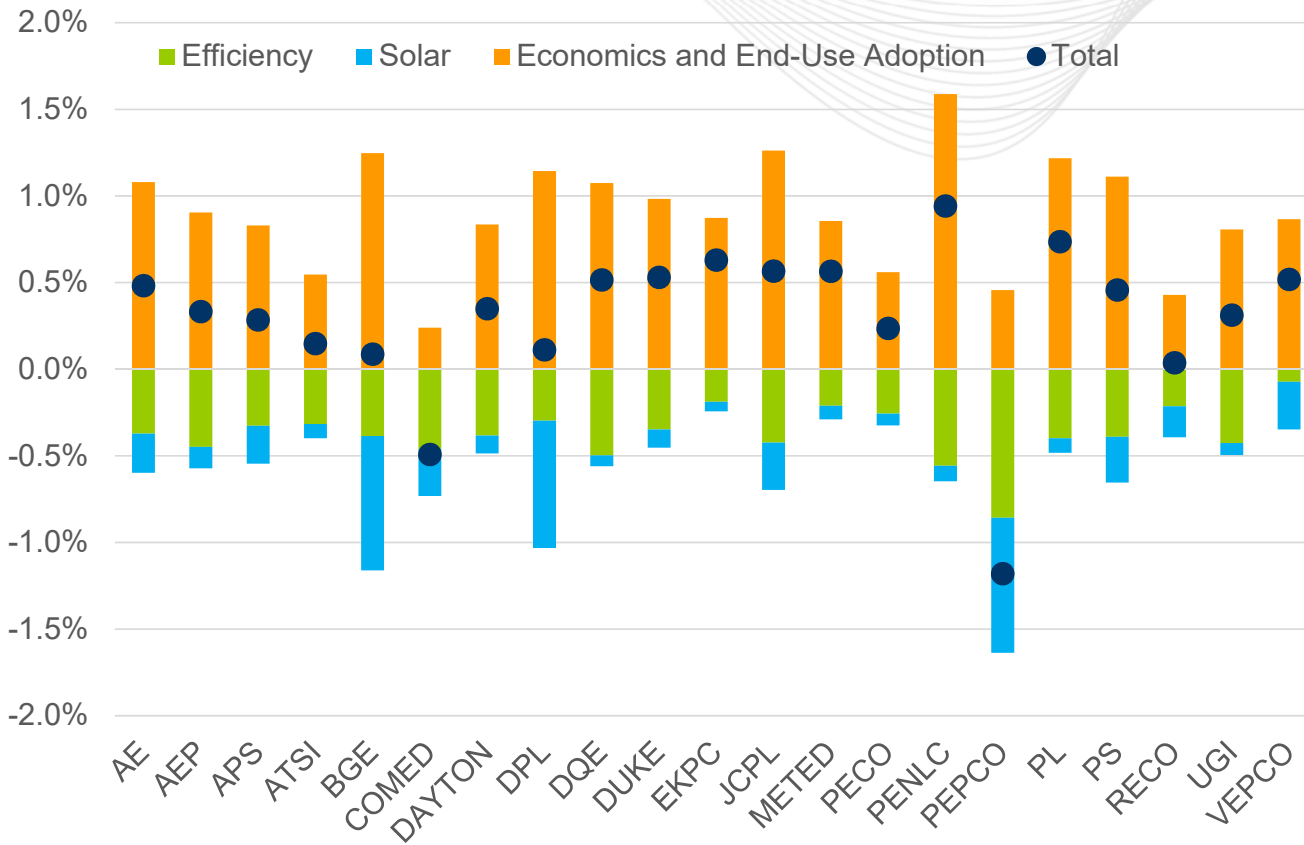
# Summer Forecast Annualized Growth Contributions



- Early part of forecast horizon influenced by economic recovery.
  - Relatively large economic contributions
  - Temporarily reduced solar
- Long run more modest economic and end-use adoption offset by solar and efficiency gains.



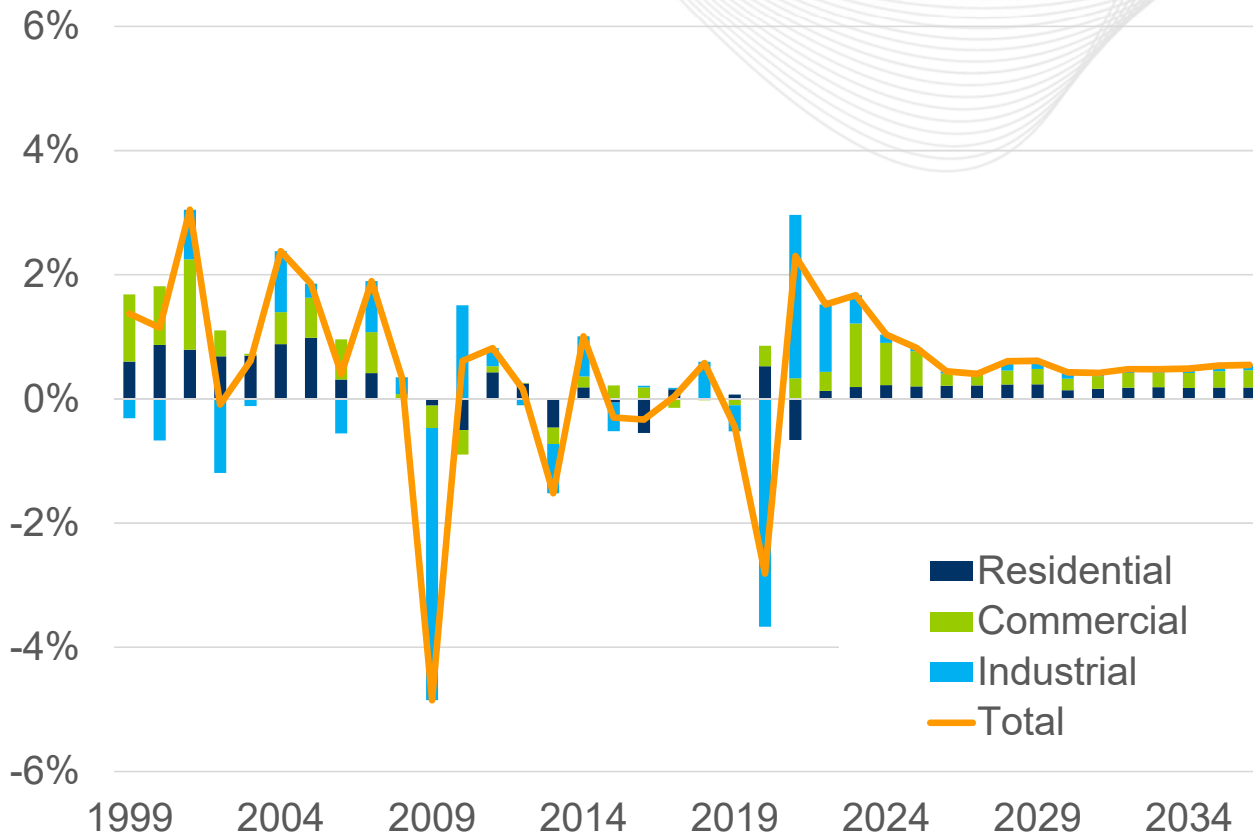
# Summer Peak Forecast Annualized Growth Contributions (2021-2036)



- Early part of forecast horizon influenced by economic recovery.
- Long run more modest economic and end-use adoption offset by solar and efficiency gains.



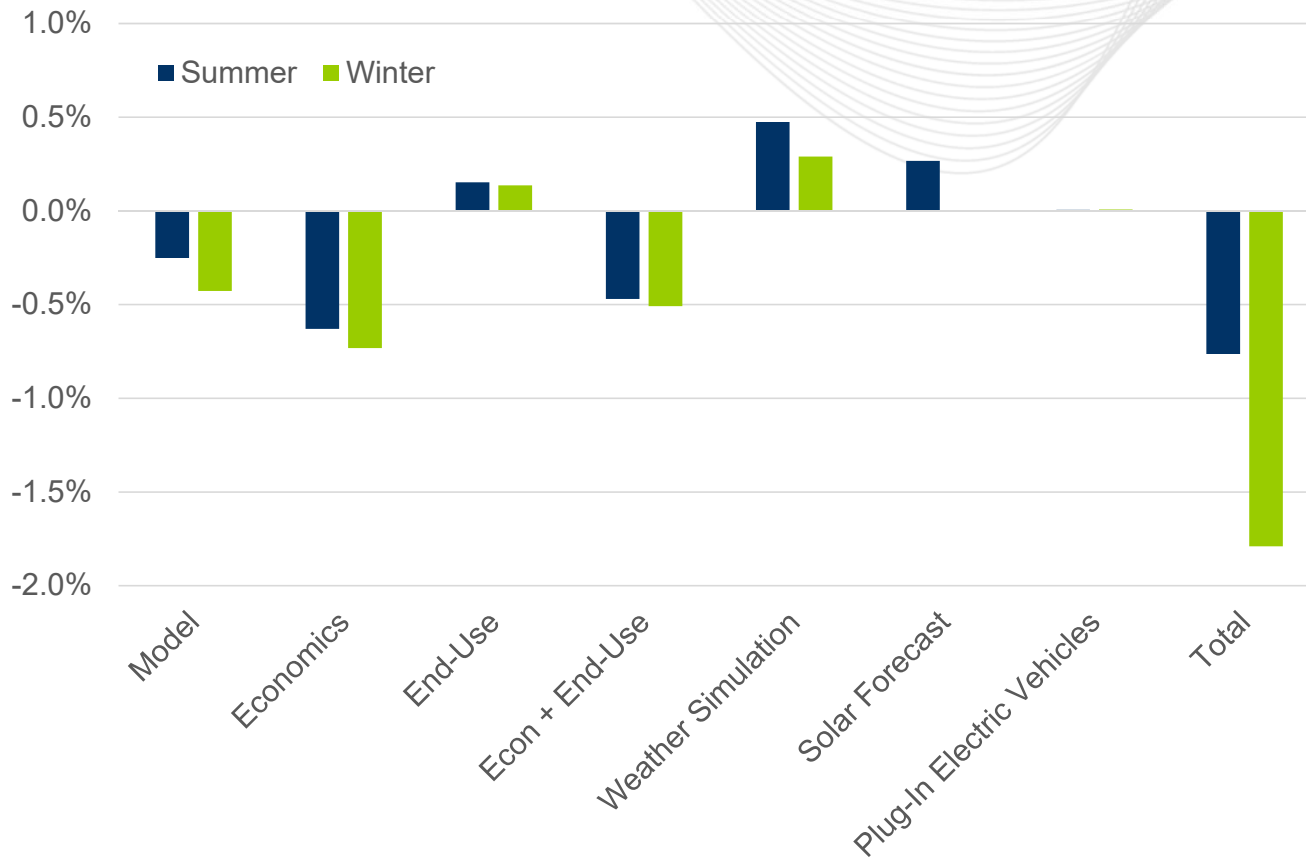
# PJM RTO Sector Growth Decomposition



- This reflects gross demand from sector models (prior to reduction for solar).
- Early part of forecast horizon influenced by economic recovery.
  - Relatively large economic contributions due to industrial output and employment recoveries
- Long run driven by small growth in residential and commercial sectors.



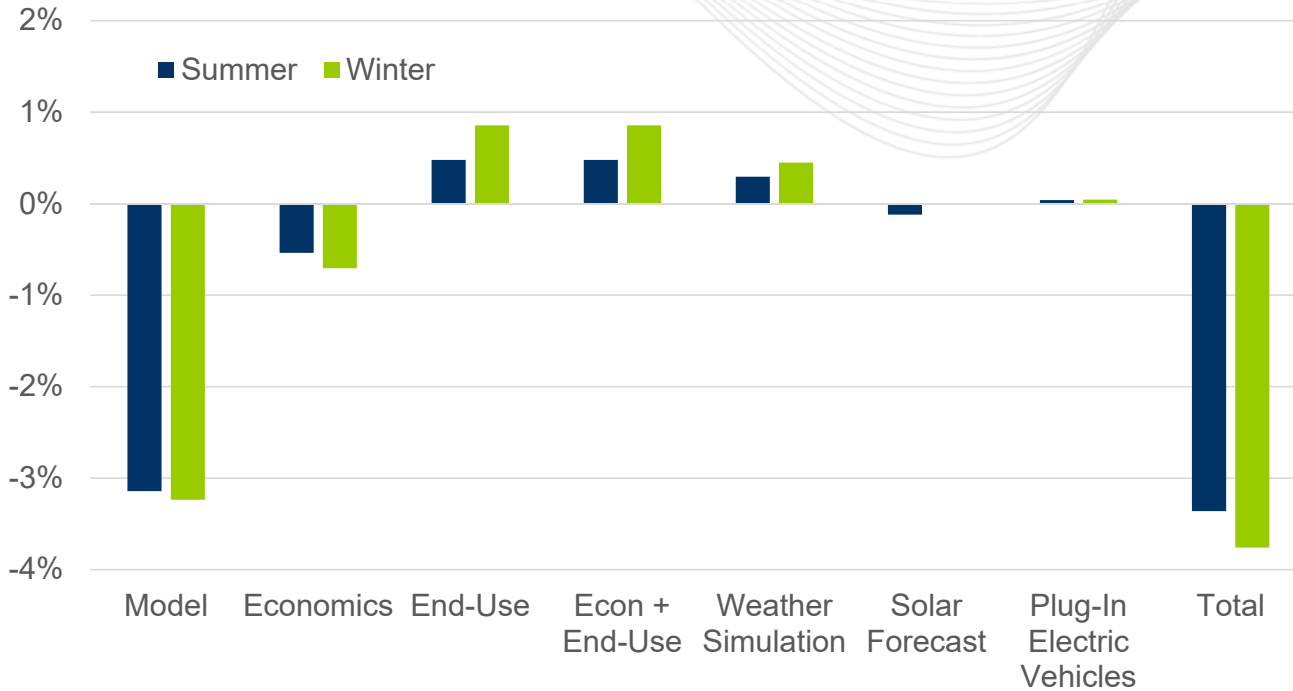
# Impact of Changes in 2023 Delivery Year From 2020 Load Forecast to 2021 Load Forecast



- Changes were made to the model as well as the input variables.
- Factors that lowered the forecast
  - Model changes
  - New economic forecast
- Factors that raised the forecast
  - New end-use forecast
  - New weather simulation
  - New solar forecast



# Impact of Changes in 2034 Delivery Year From 2020 Load Forecast to 2021 Load Forecast

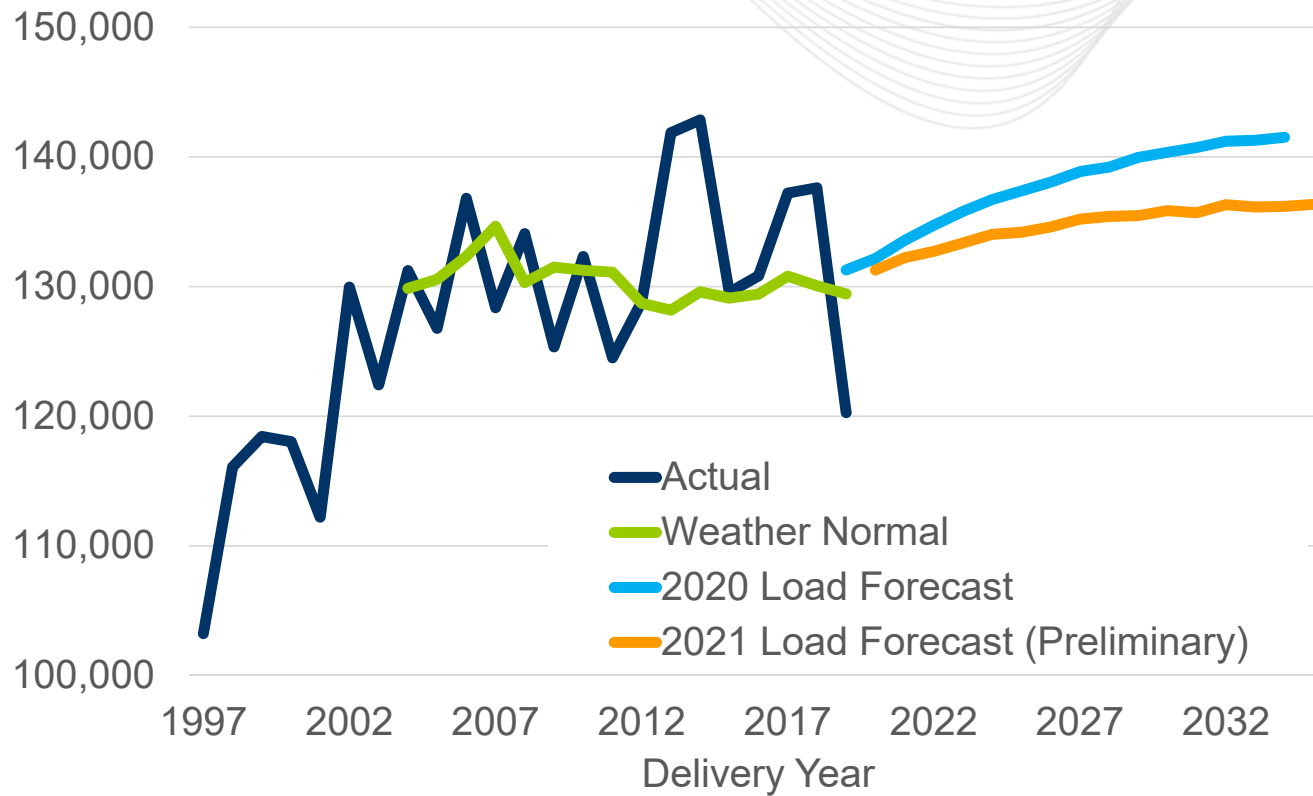


- Changes were made to the model as well as the input variables.
- Factors that lowered the forecast
  - Model changes
  - New economic forecast
  - New solar forecast
- Factors that raised the forecast
  - New end-use forecast
  - New weather simulation





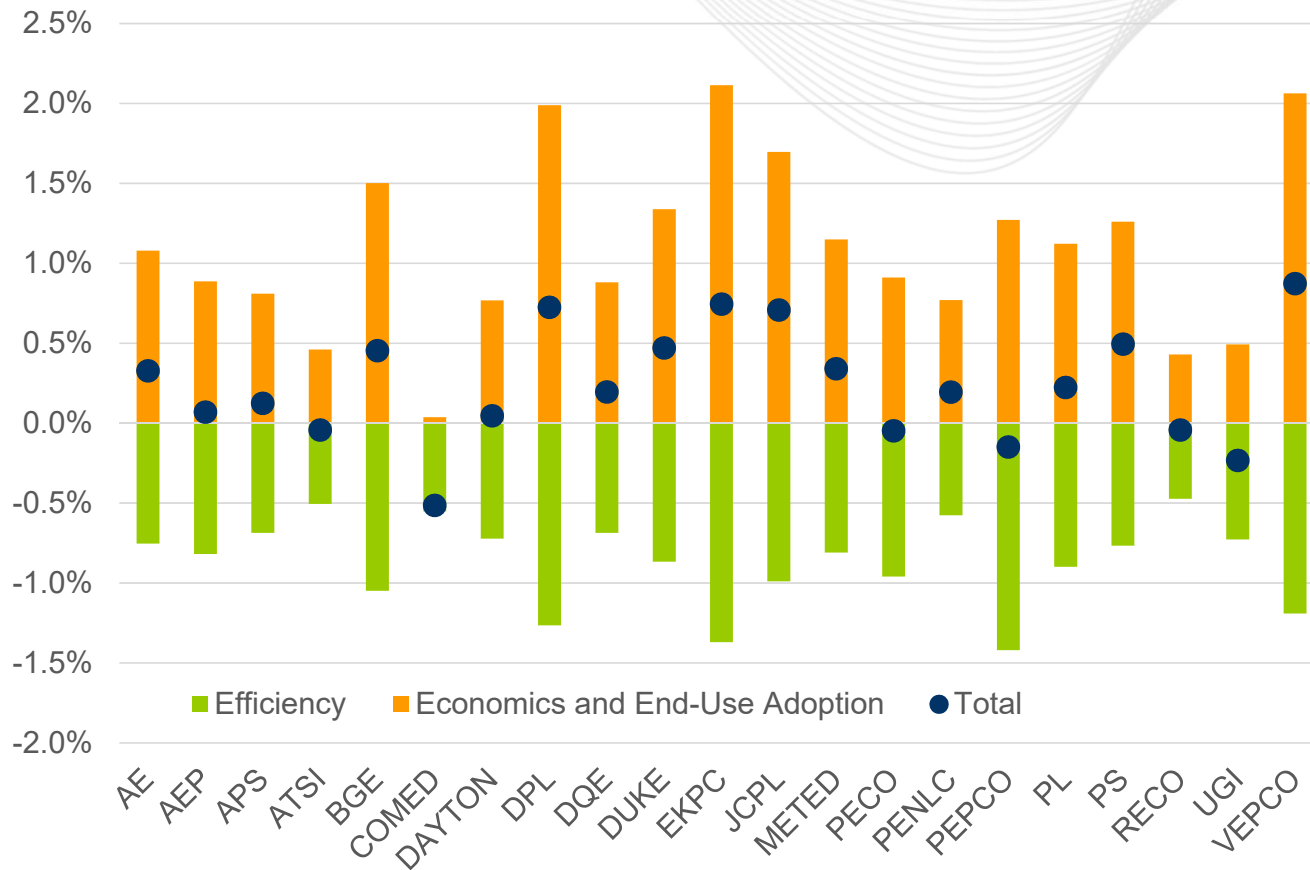
# 2021 PJM RTO Preliminary Winter Peak Forecast



- 15-year Annualized Growth Rate
  - 2020 LF: 0.5%
  - 2021 LF: 0.3%
- Select year comparisons (2021 LF vs 2020LF)
  - 2023: Down 1.8%
  - 2025: Down 2.3%
  - 2034: Down 3.8%



# Winter Peak Forecast Annualized Growth Contributions (2021-2036)



- Early part of forecast horizon influenced by economic recovery.
- Long run more modest economic and end-use adoption offset by efficiency gains.
- Winter peak forecast not impacted by solar.

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## Long-Term Load Forecast



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