

2015 KCP&L and GMO Triennial IRP Stakeholder Meeting

January 21, 2015

**** Highly Confidential ****



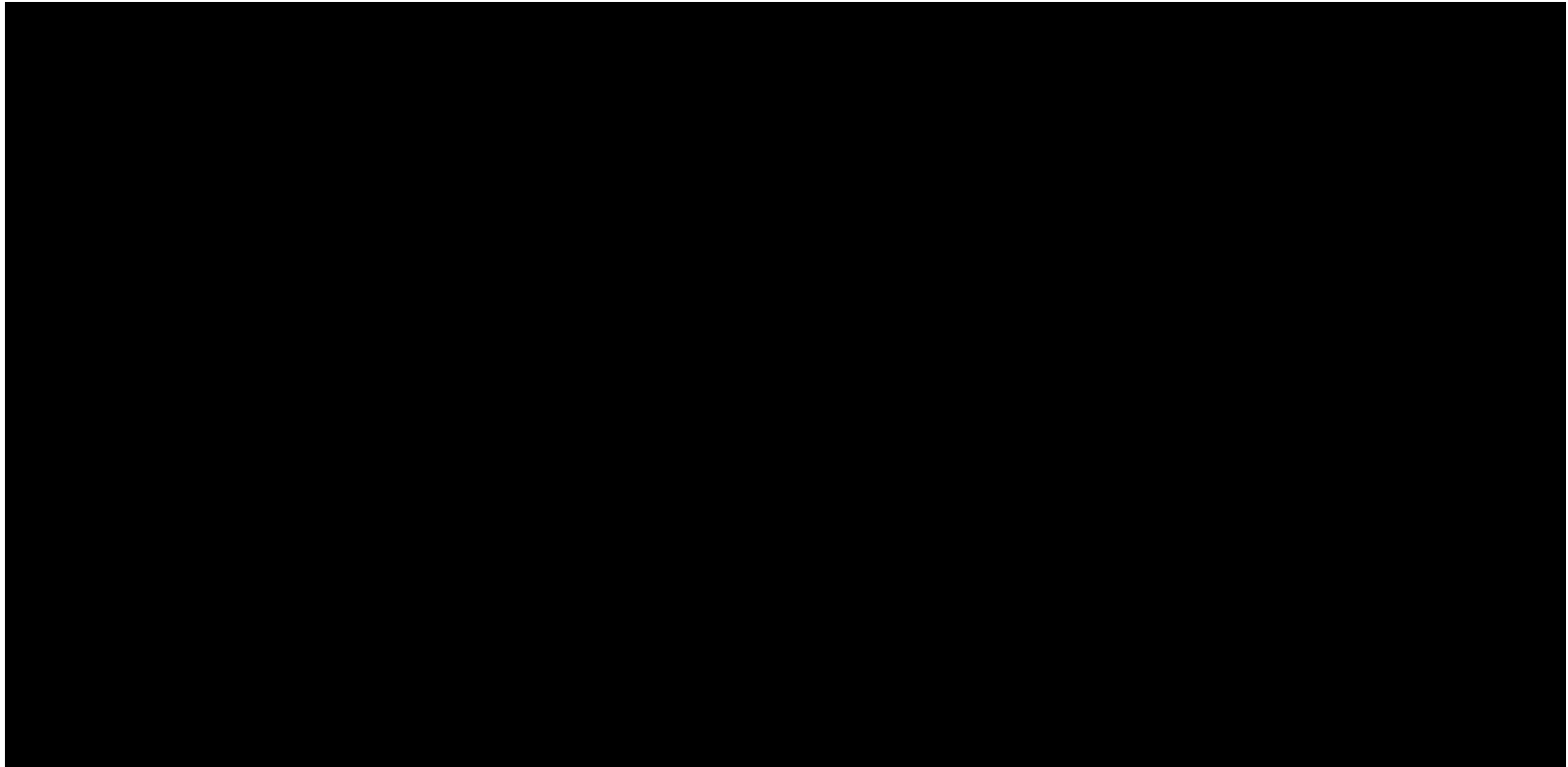
Load Forecast Analysis

Changes in Inputs to Load Forecasting Models

- Updated Moody's economic forecasts of the KC and SJ metro areas: July 2014 vs June 2013 used in last years update
- DOE forecasts of appliance and equipment saturations and kwh/unit: 2014 vs 2013
- Space heat model (Actuals through July 2014)
- Historical data for customers, kwh and \$/kwh: July 2014 vs June 2013
- Price elasticities
 - % change of demand / % change in inflation adjusted price
- Class model changes: small commercial, big commercial, and industrial vs. small, medium, large, large power
- Historical data is no longer modified to include historical DSM

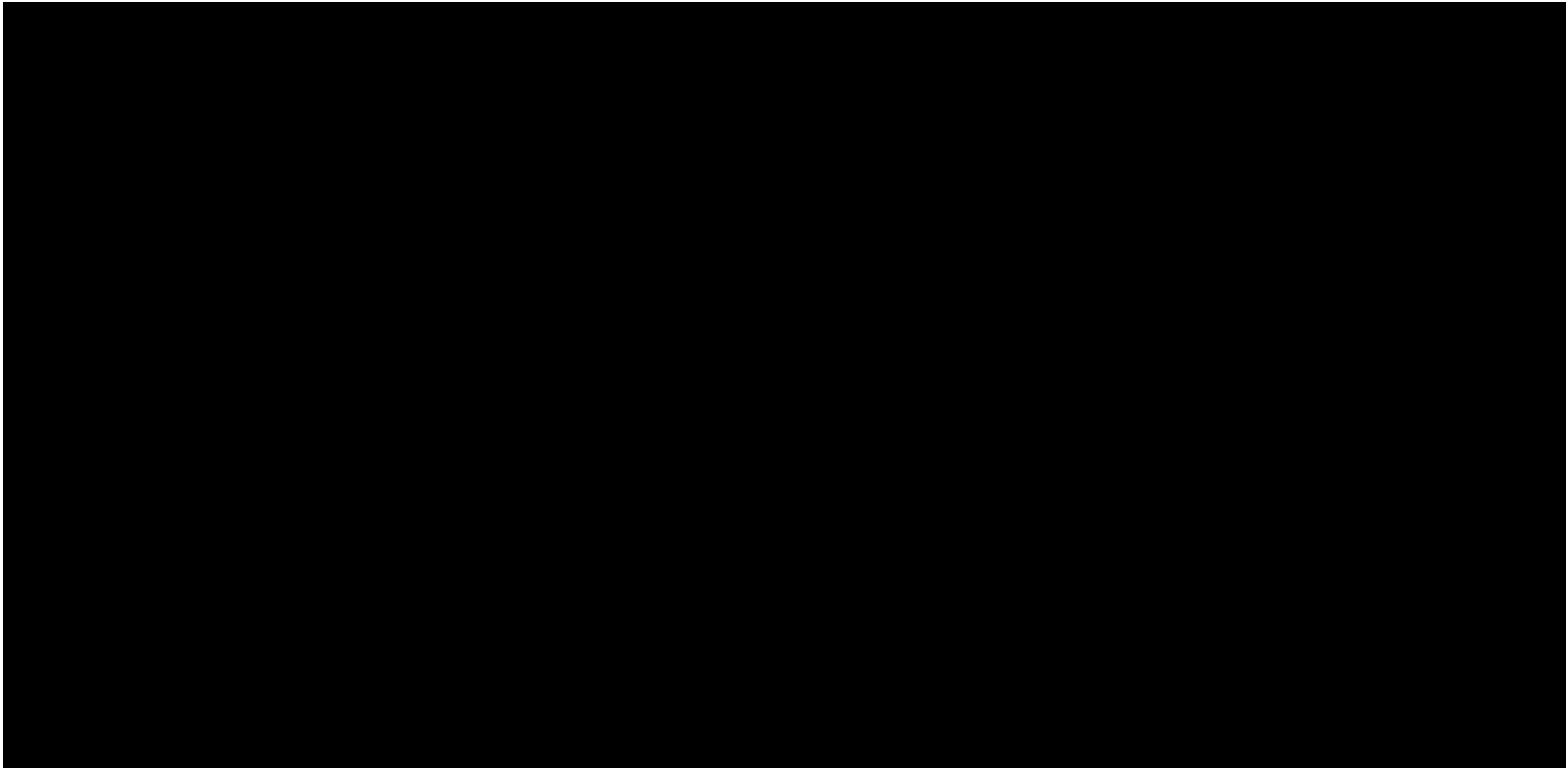
KCP&L Actual Historical and Comparison of Base Case Forecasts of Net System Input Excluding DSM Impacts

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KCP&L Actual Historical and Comparison of Base Case Forecasts of Demand Excluding DSM Impacts

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KCP&L Historical and Base Case Forecast of Demand

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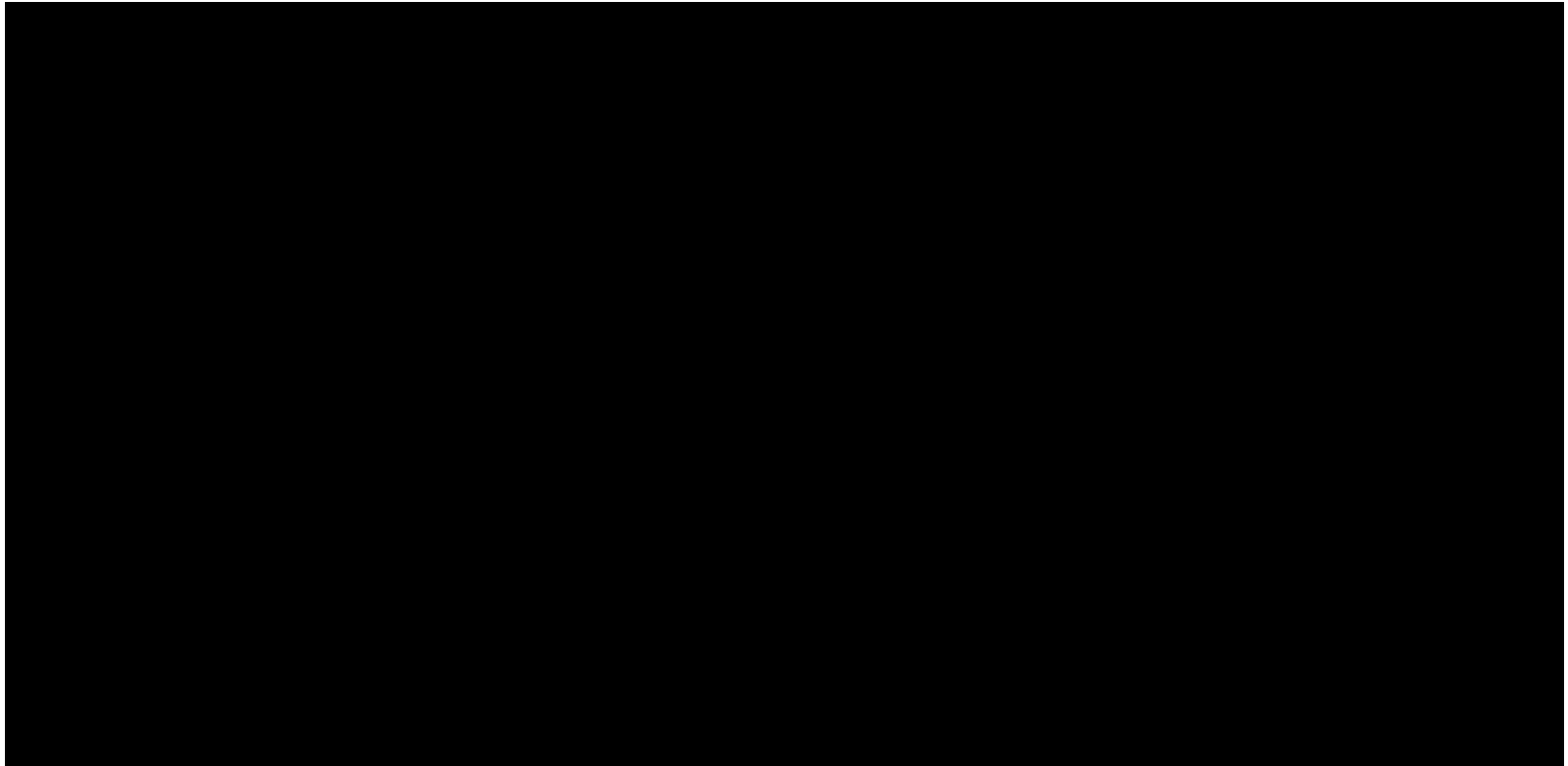
DSM = Demand Side Management

LF = Load Factor

DVC = Dynamic Voltage Control (Peak Only)

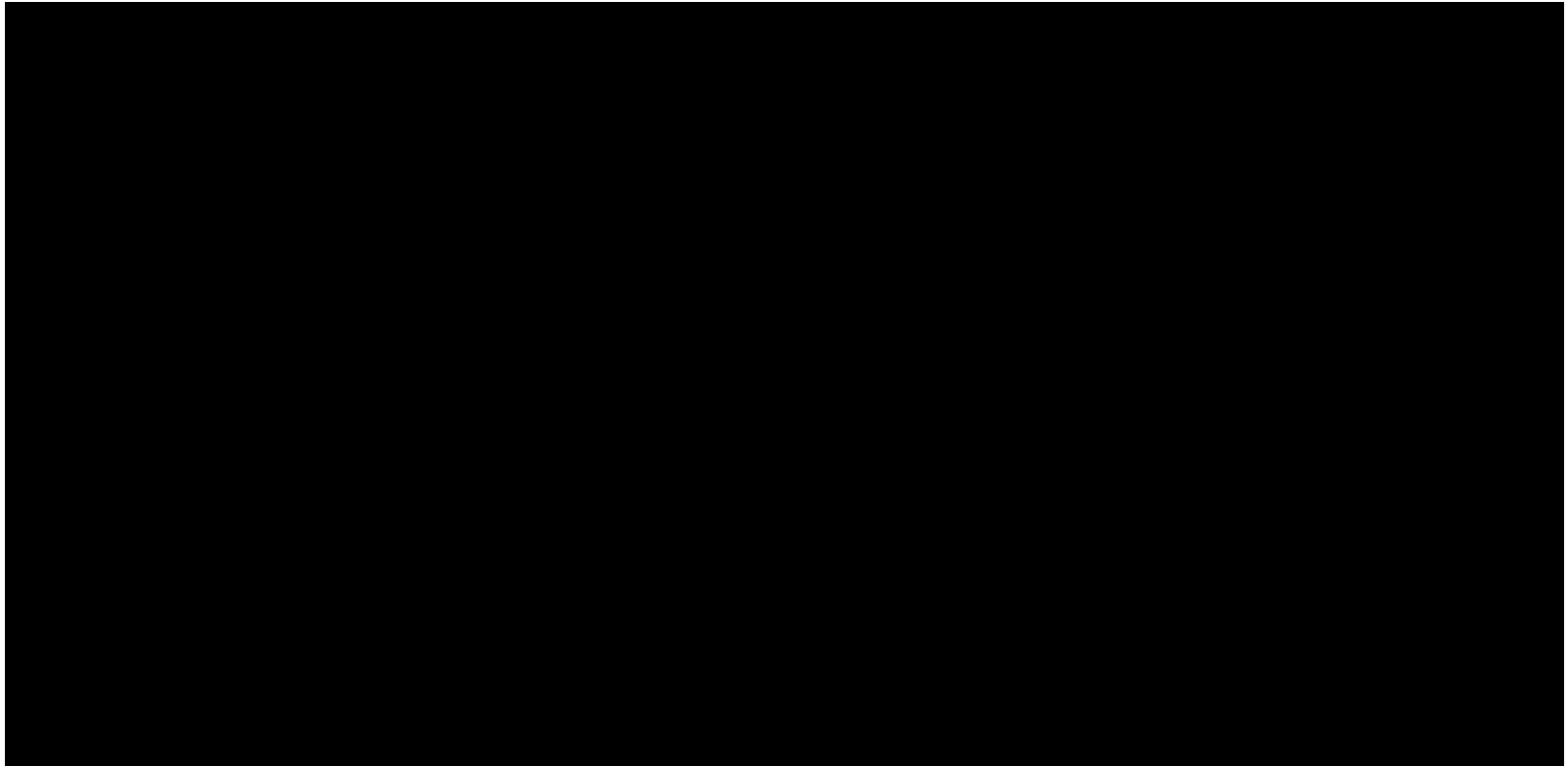
KCP&L WN Historical and Forecasted Net System Input

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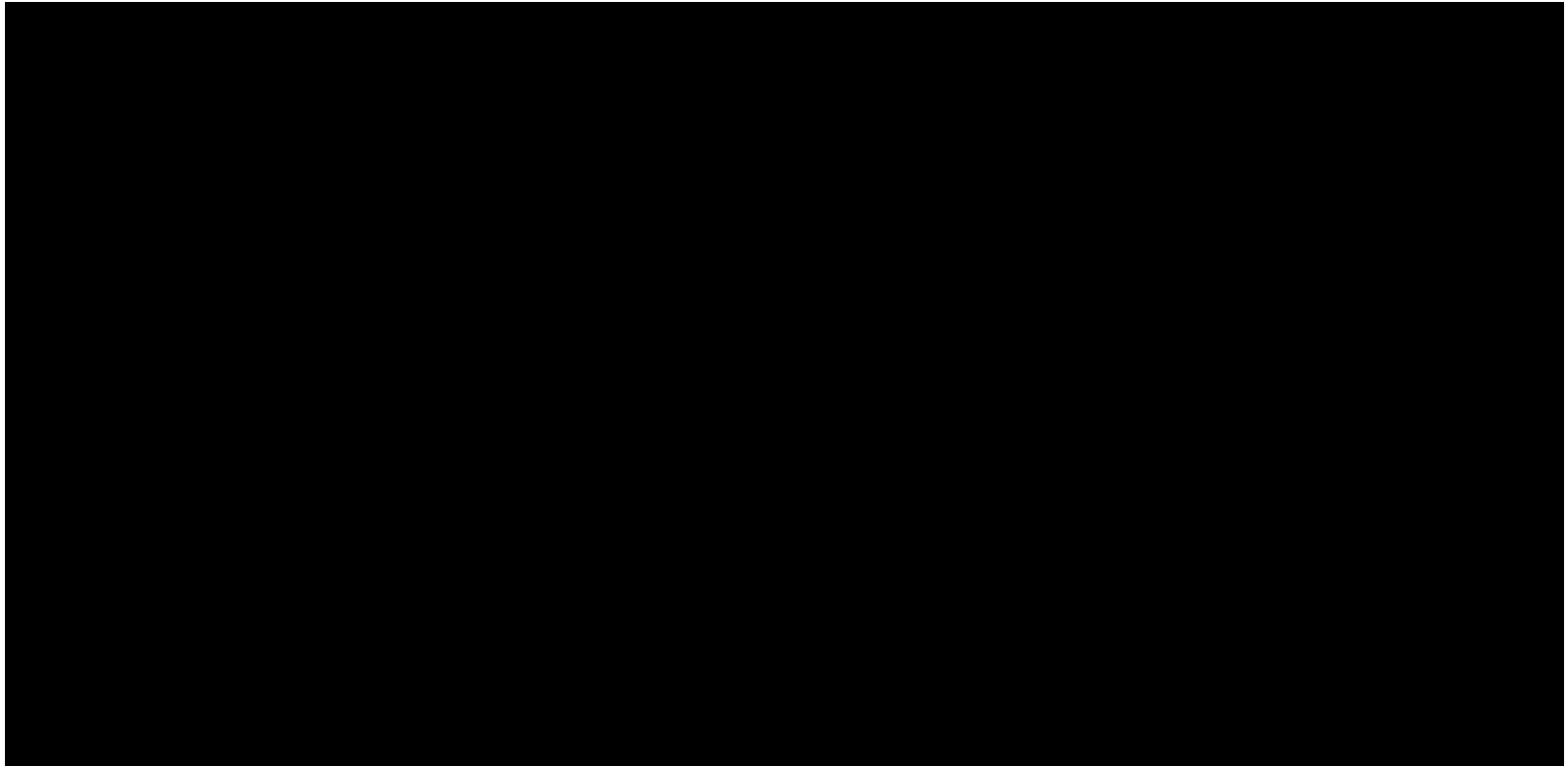
KCP&L WN Historical and Forecasted Demand

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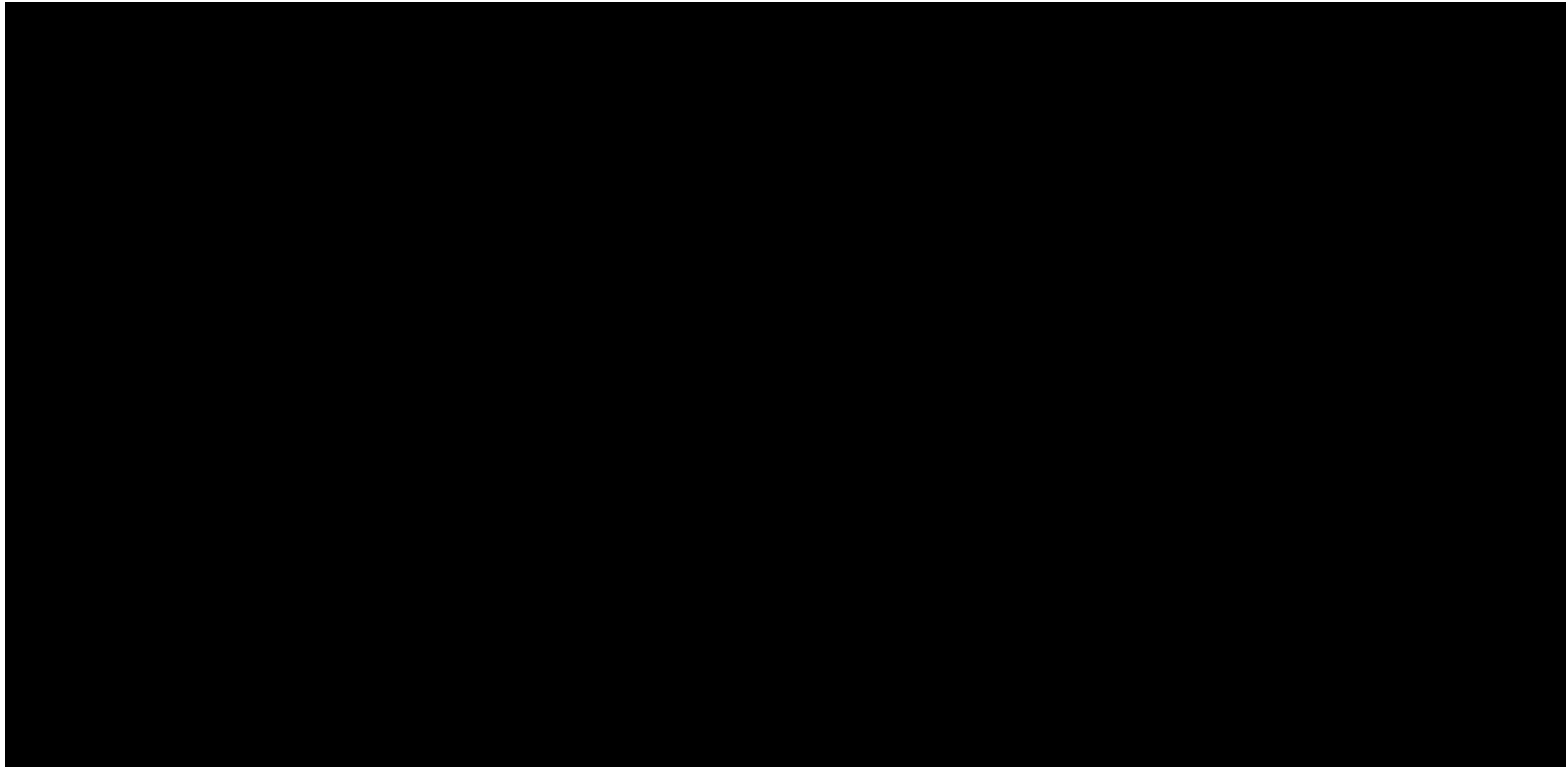
MPS Actual Historical and Comparison of Base Case Forecasts of Net System Input Excluding DSM Impacts

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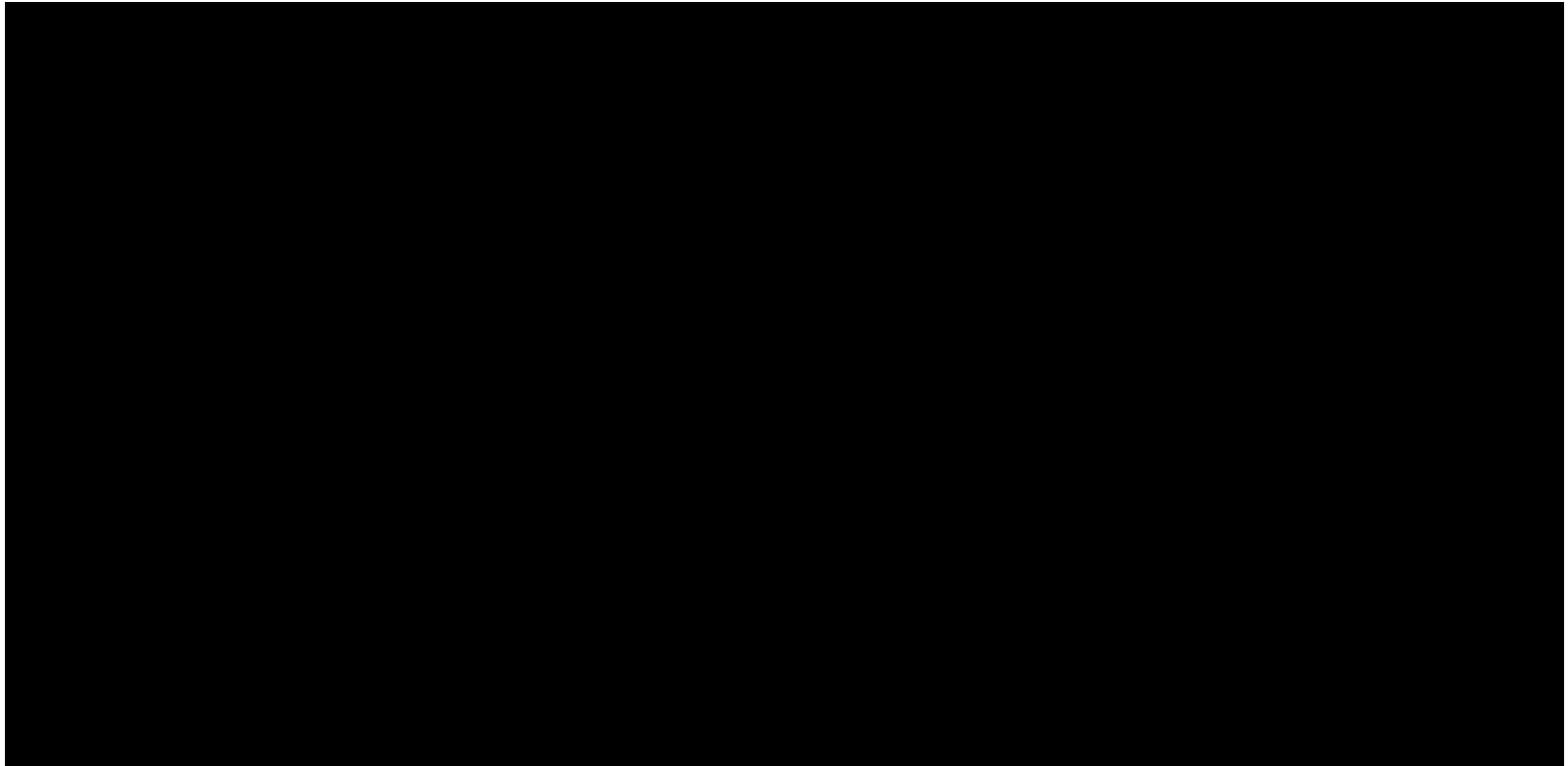
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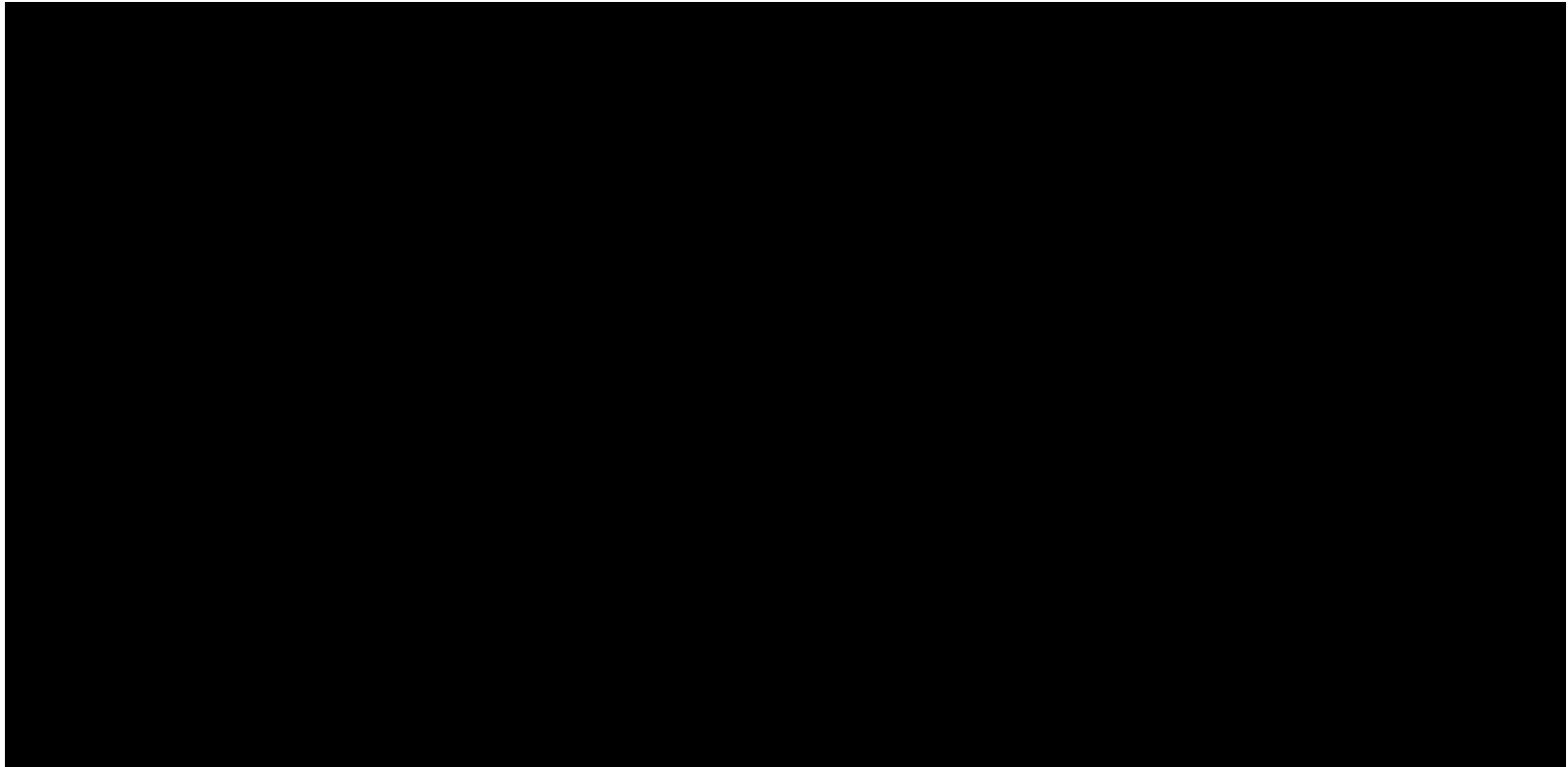
SJLP Actual Historical and Comparison of Base Case Forecasts of Net System Input Excluding DSM Impacts

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SJLP Actual Historical and Comparison of Base Case Forecasts of Demand Excluding DSM Impacts

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GMO Historical and Base Case Forecast of Demand

**** Highly Confidential ****



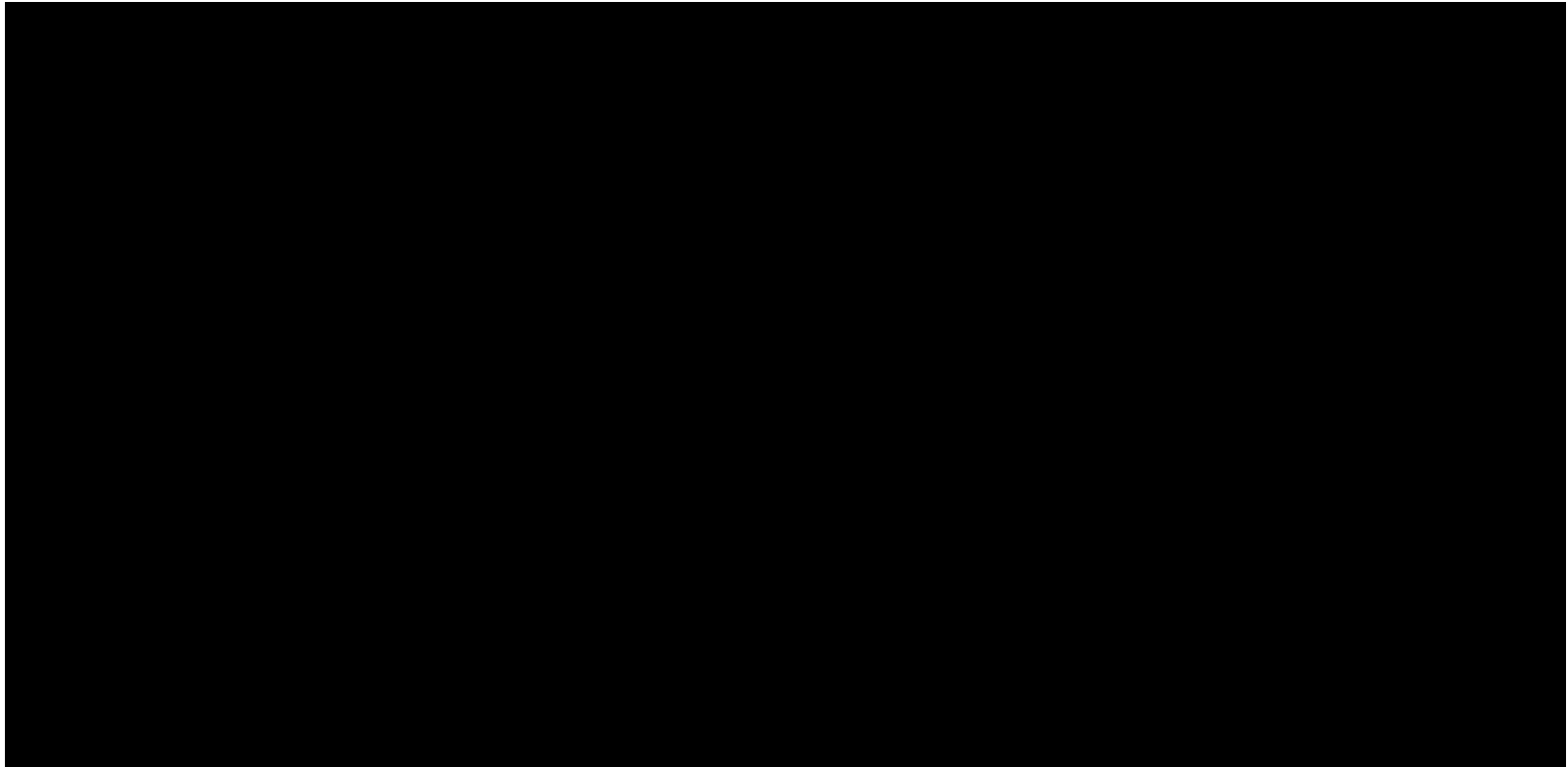
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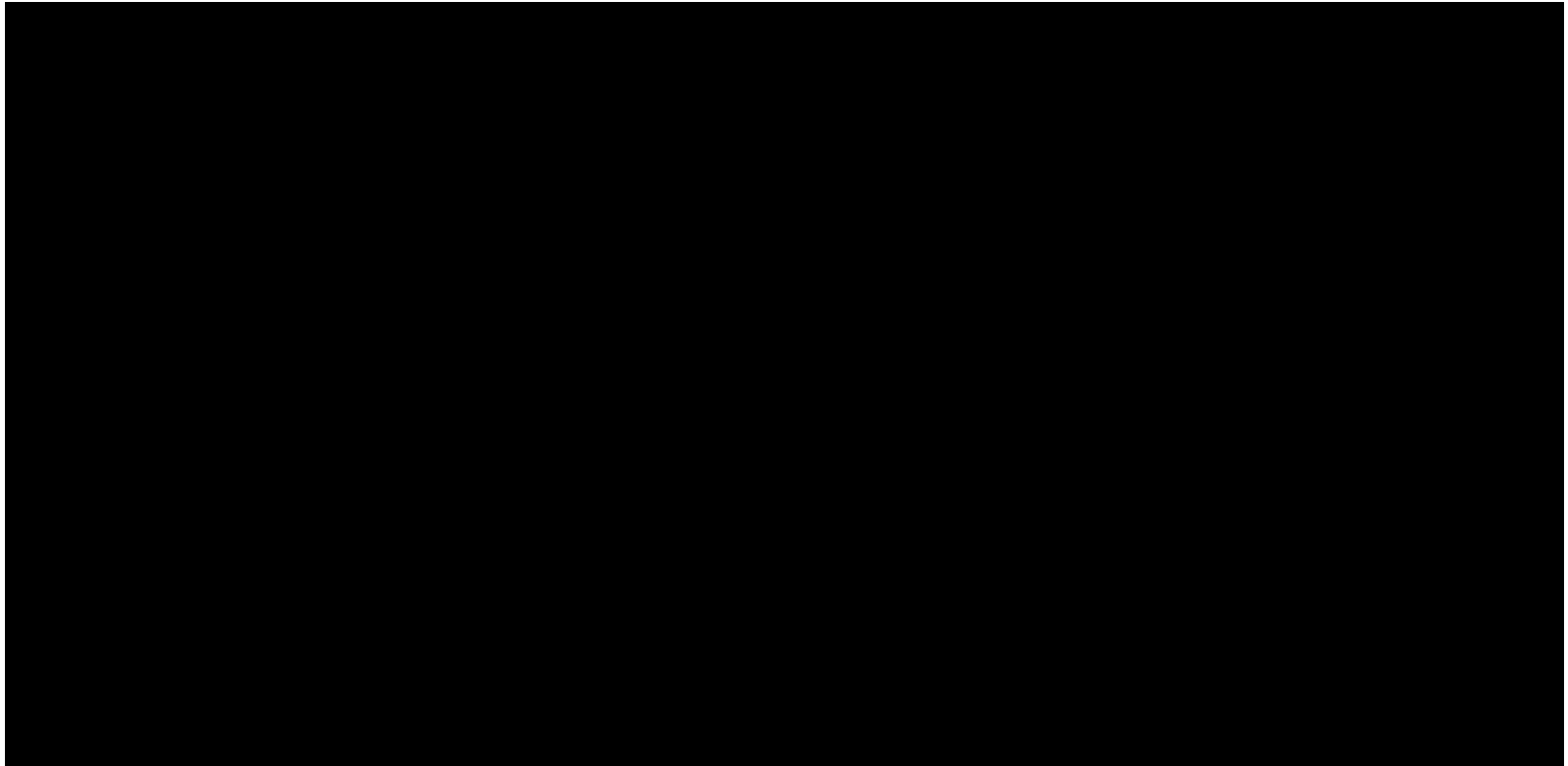
GMO WN Historical and Forecasted Net System Input

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GMO WN Historical and Forecasted Peak Demand

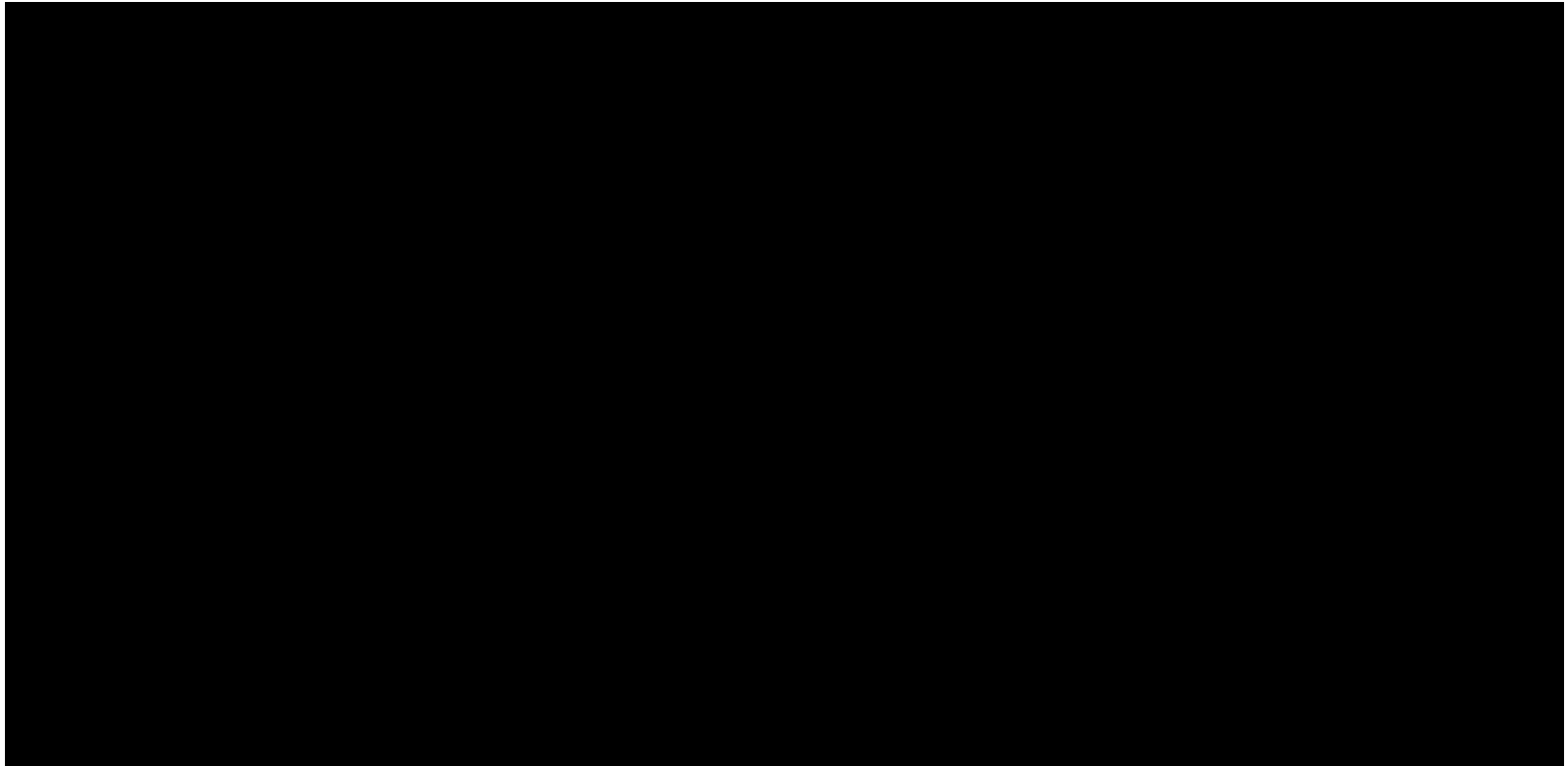
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Supply-Side Resource Analysis

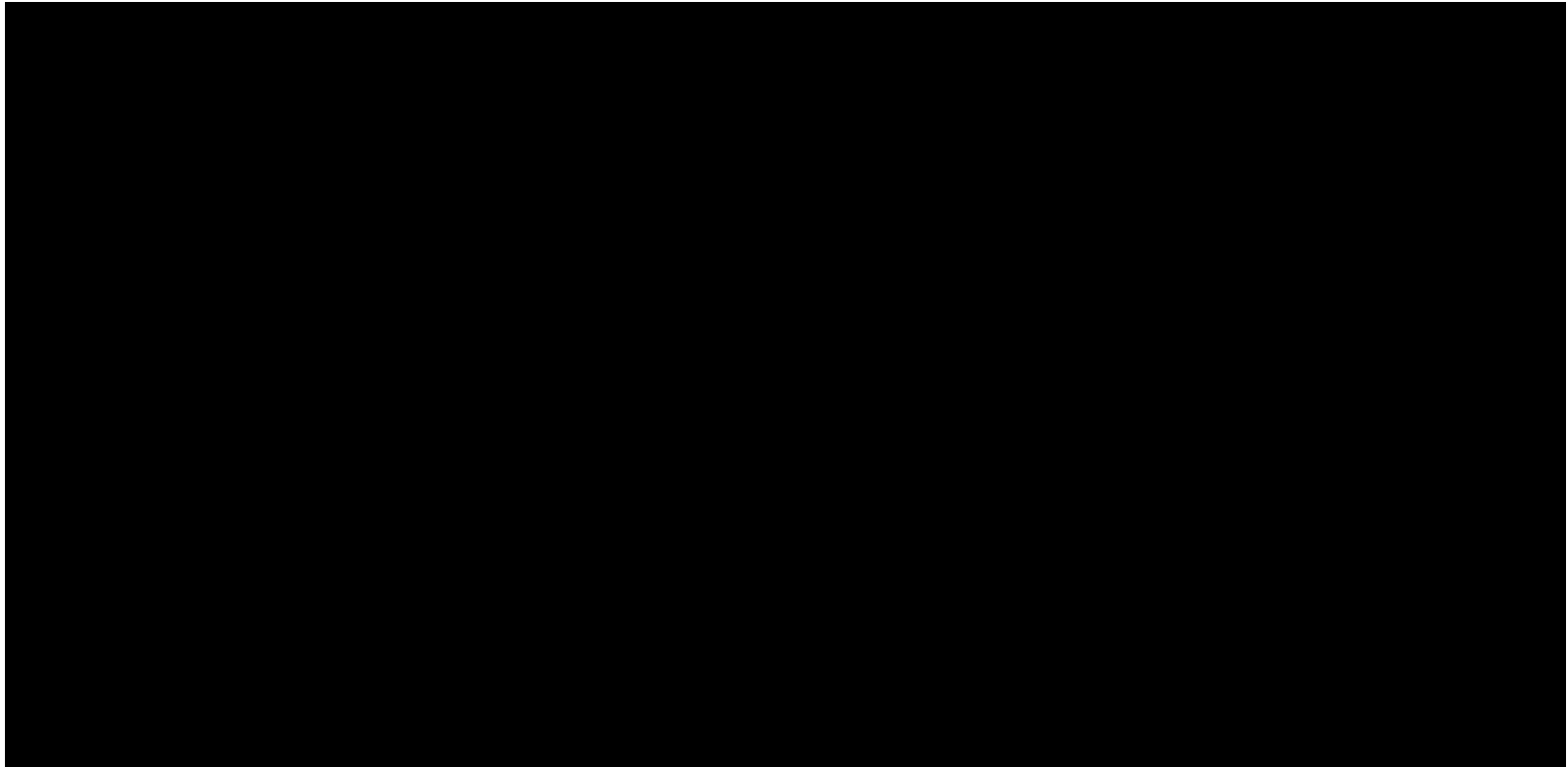
Natural Gas Price Forecast Comparison

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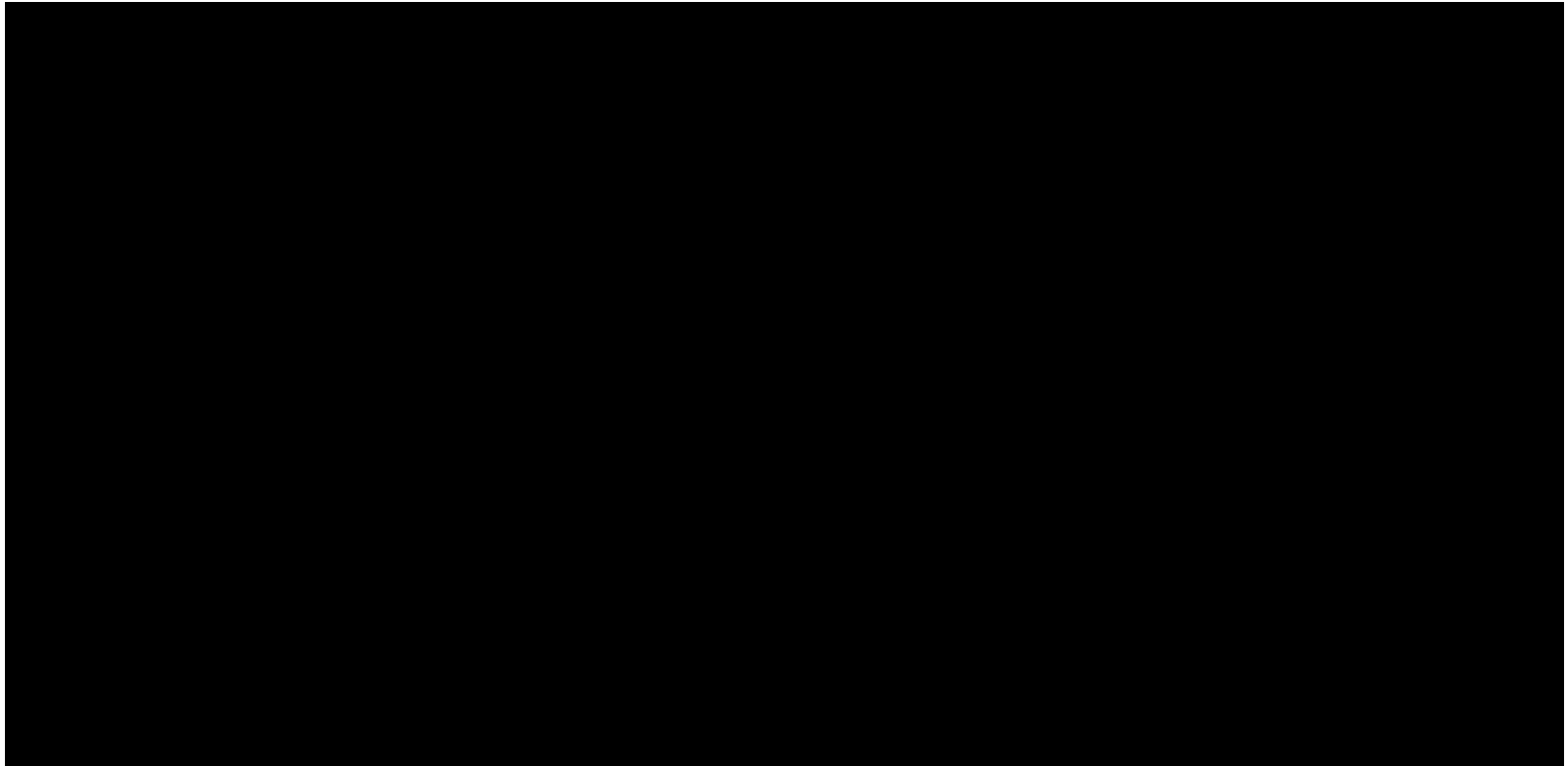
CO₂ Price Forecast

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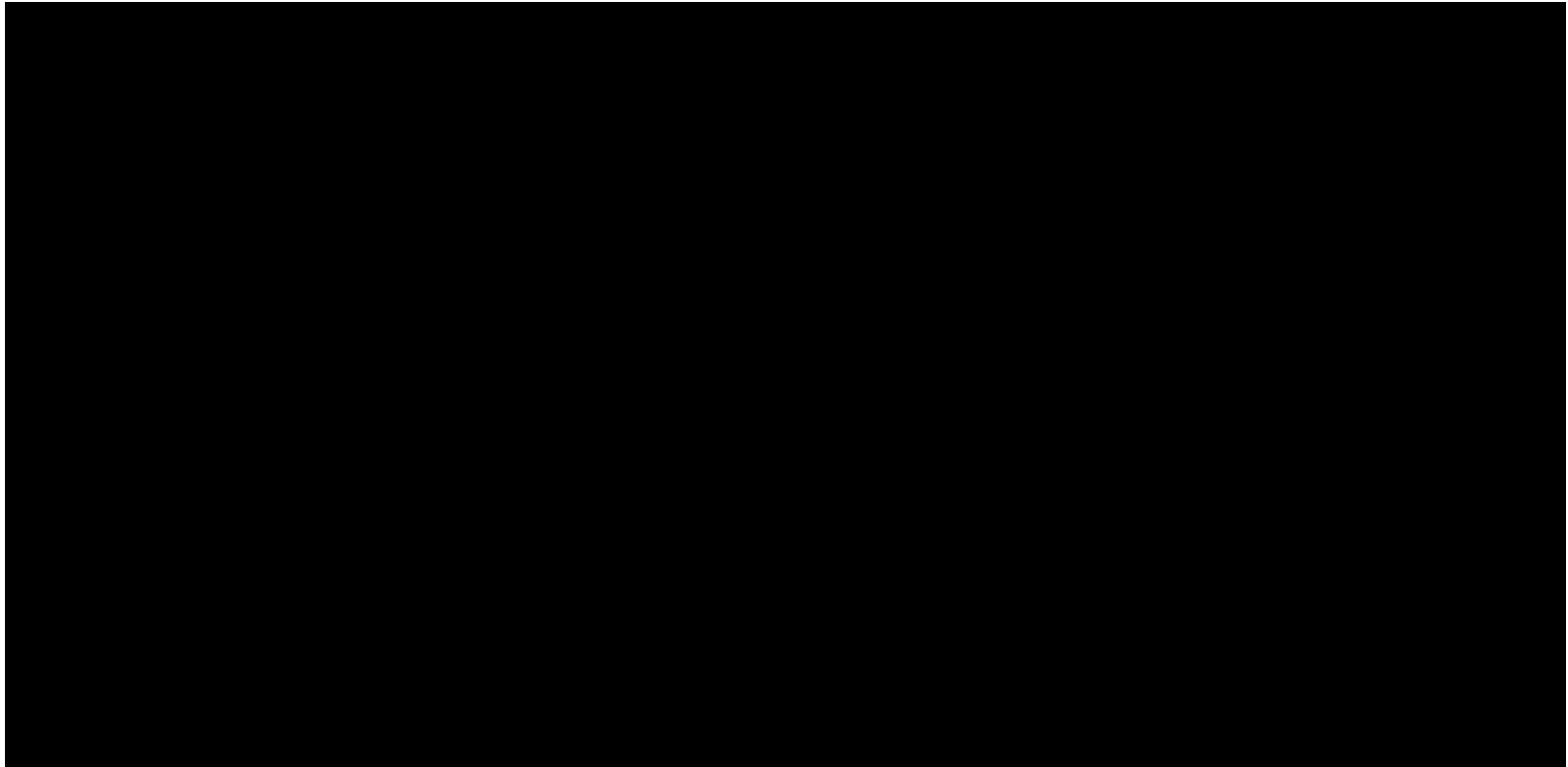
Coal Price Forecast Comparison

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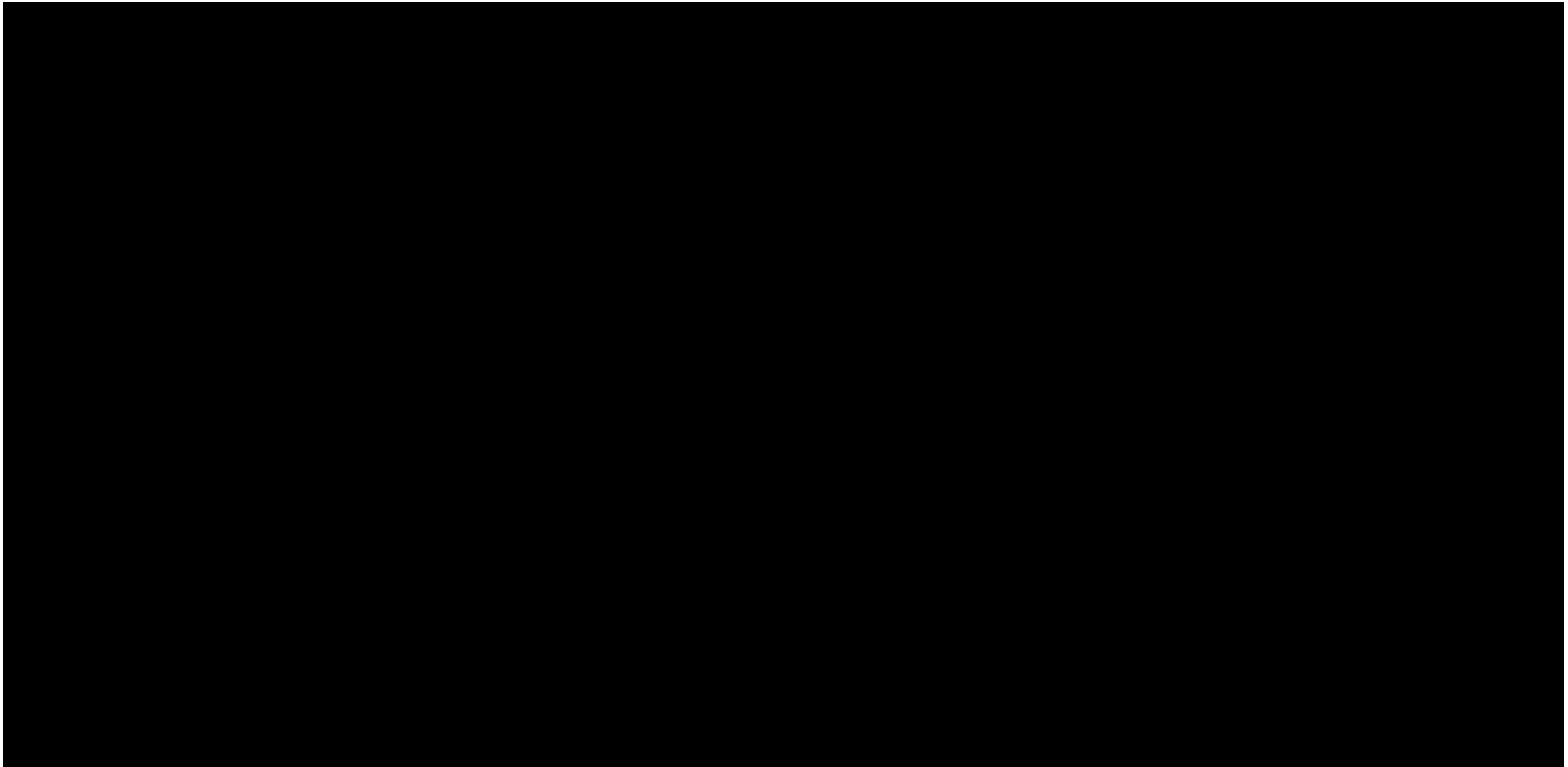
Fuel Oil Price Forecast Comparison

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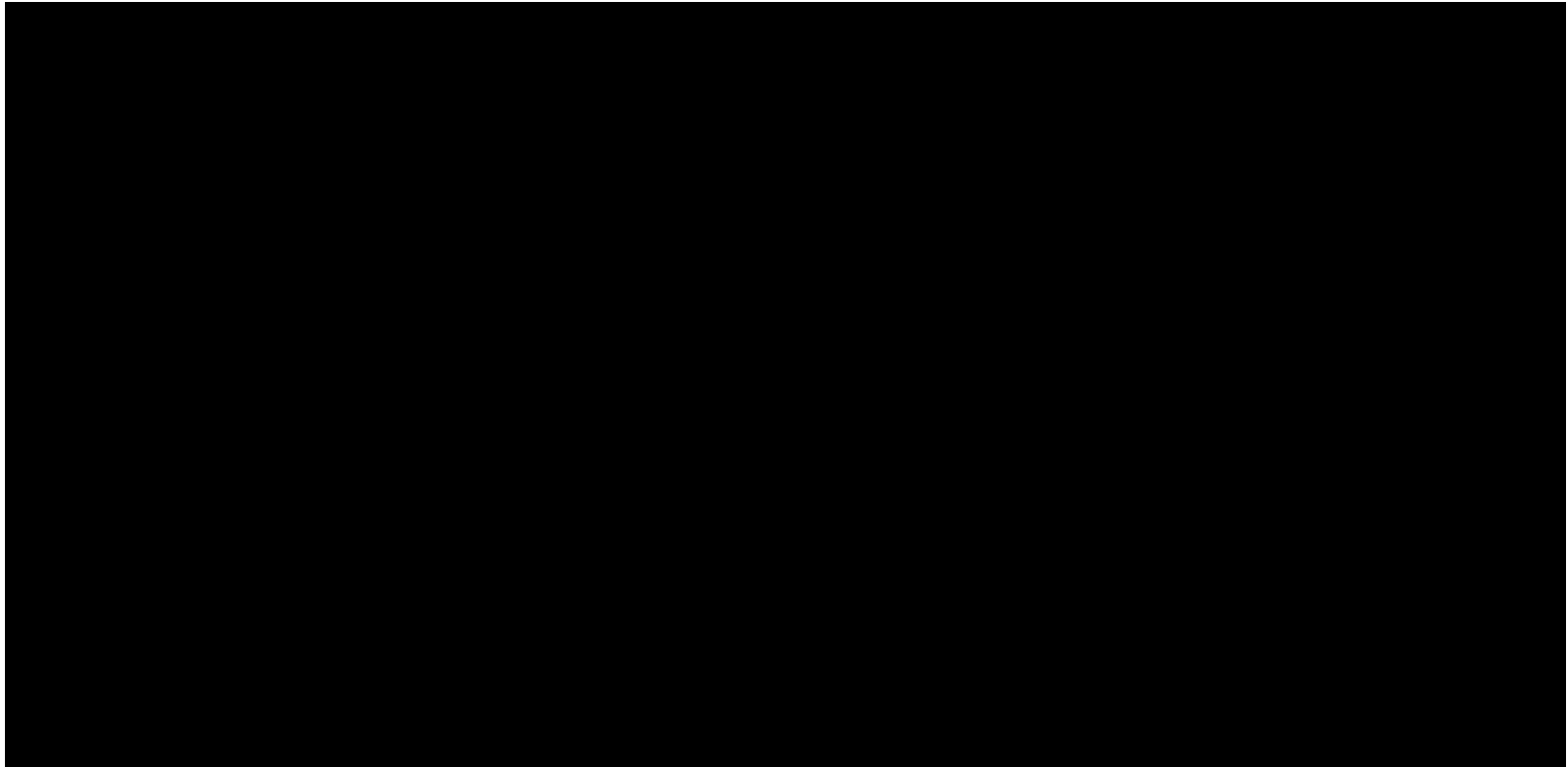
CAIR SO₂ Group 1 Price Forecast

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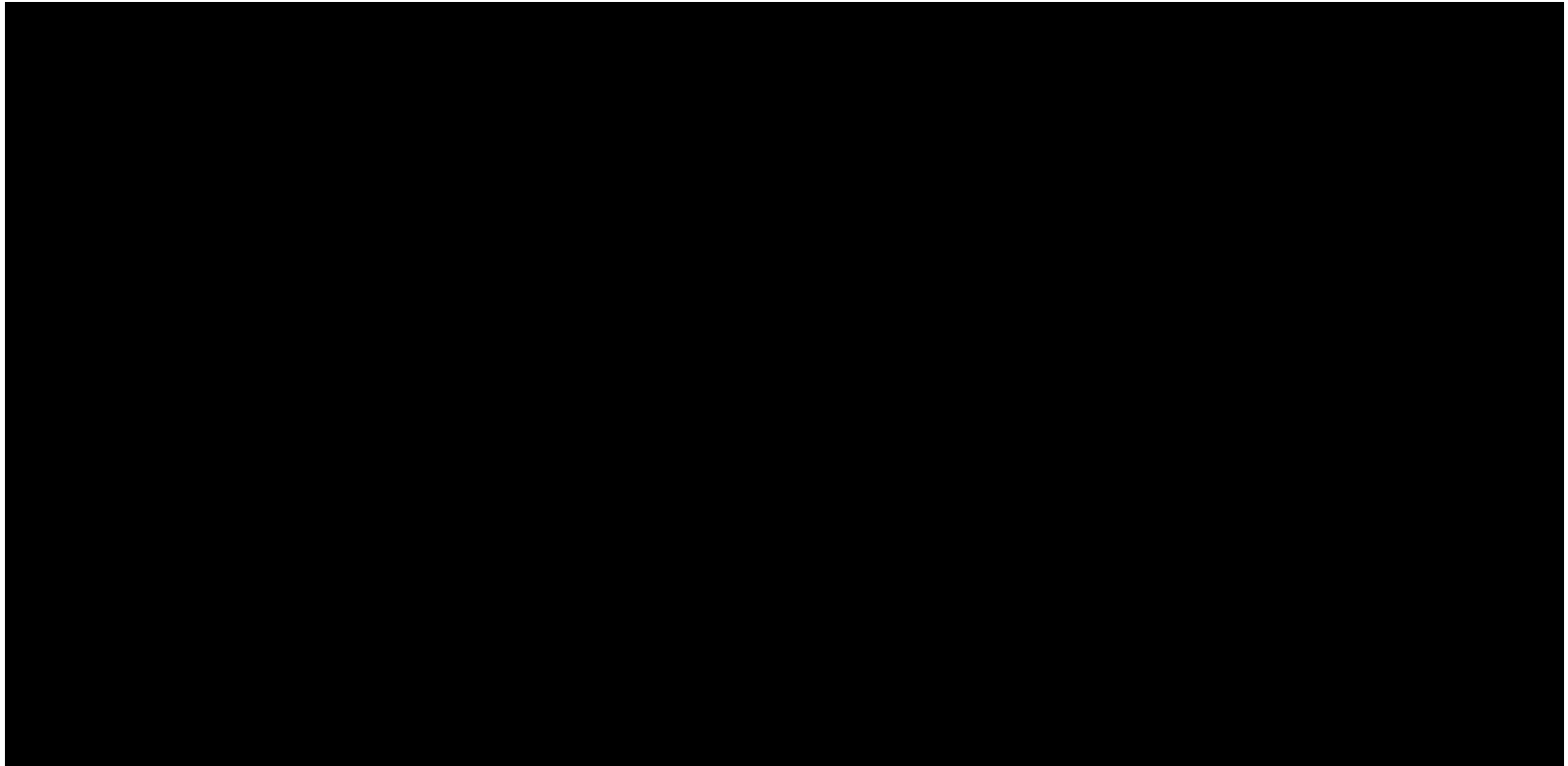
CAIR SO₂ Group 2 Price Forecast

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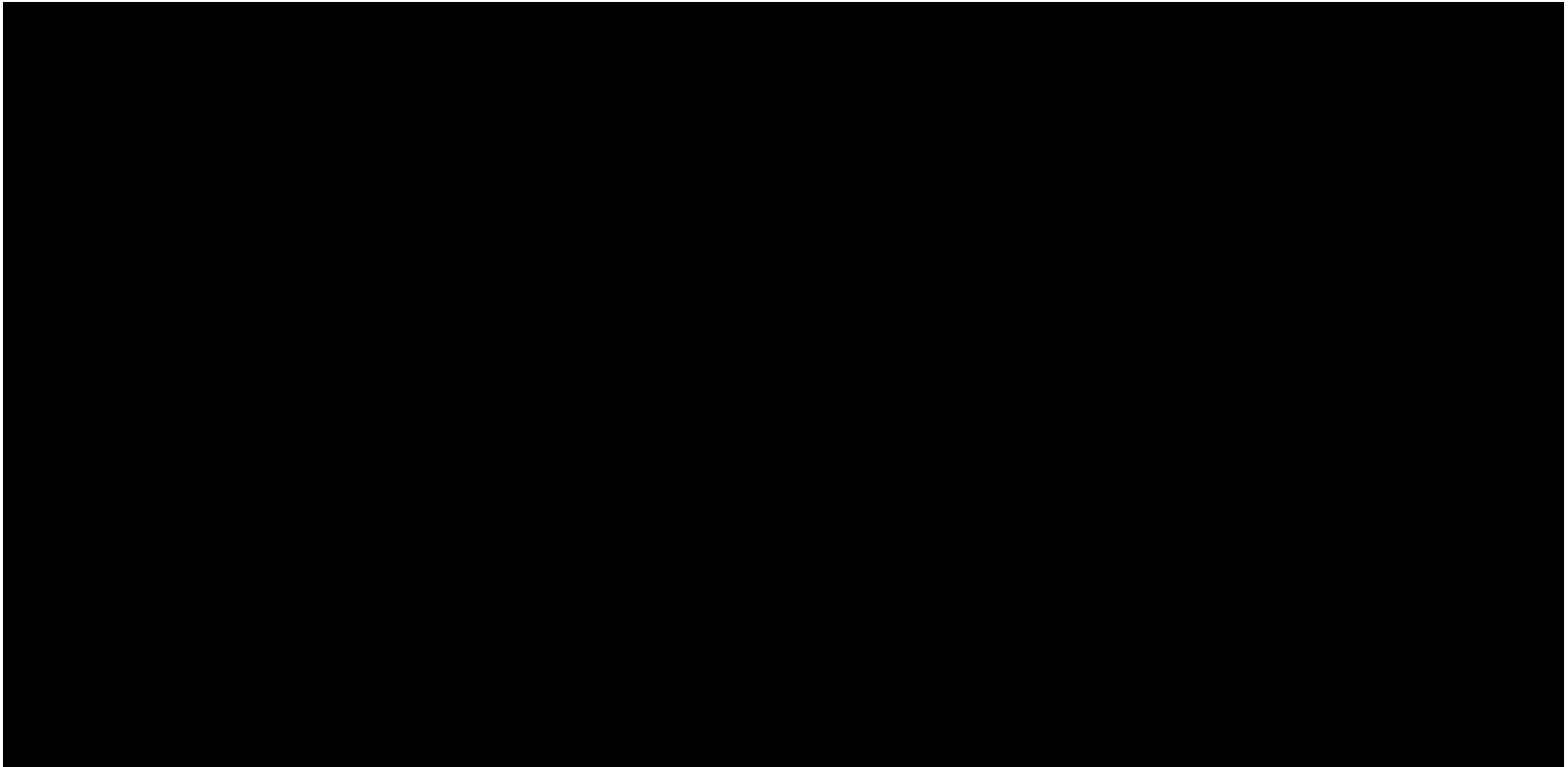
NO_x Annual Price Forecast

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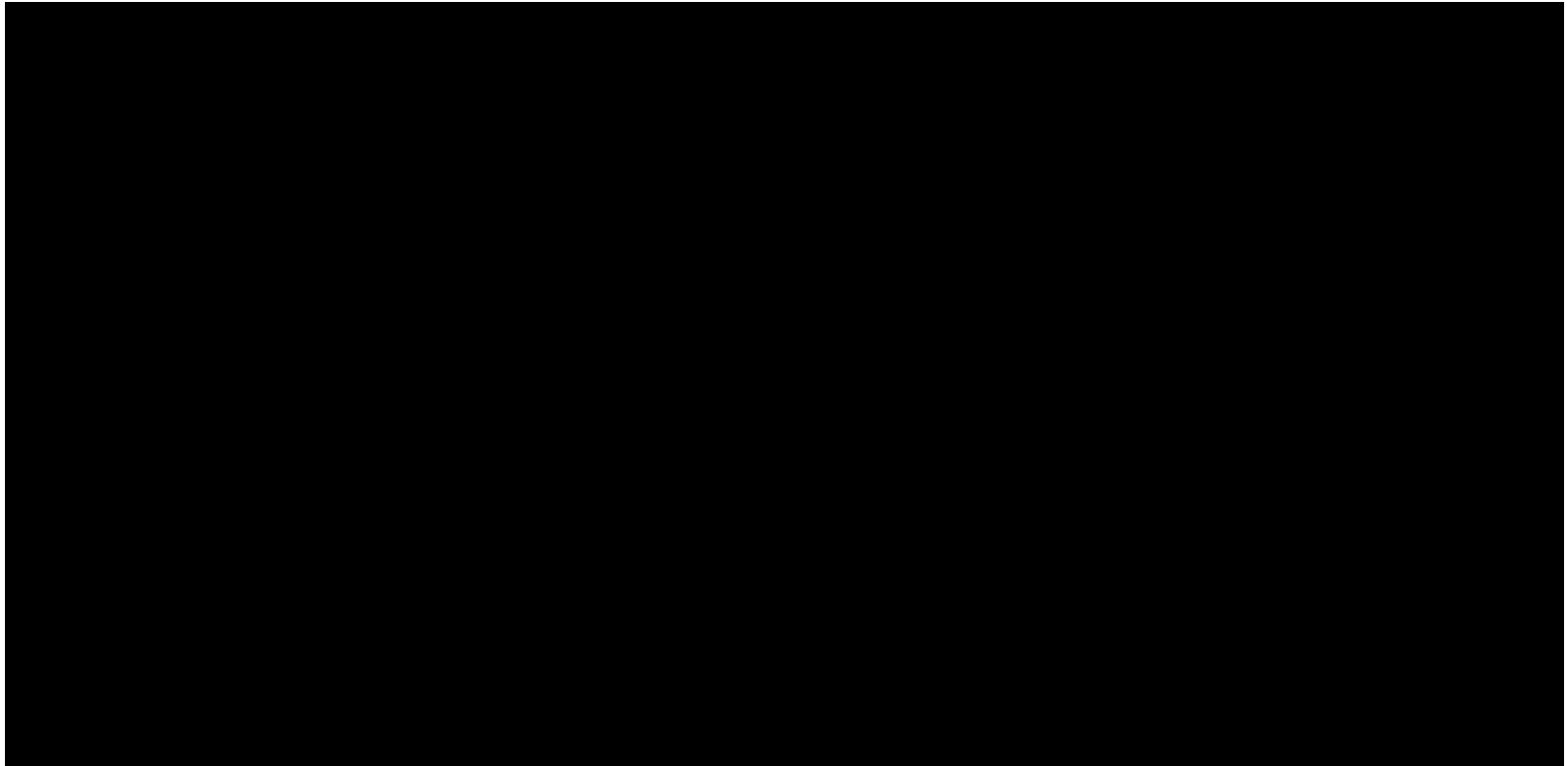
NO_x Seasonal Price Forecast

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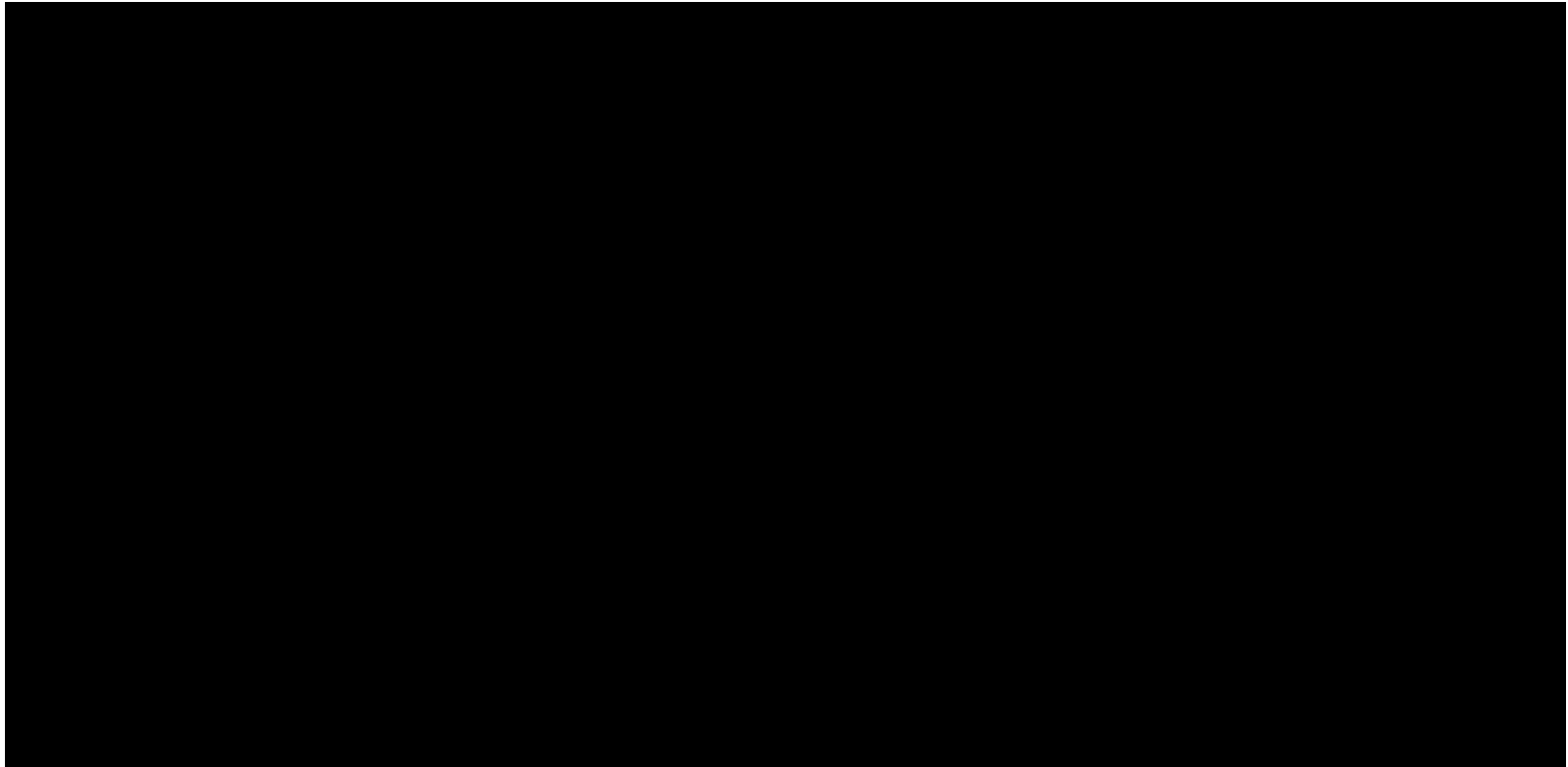
Environmental Drivers and Expected Retrofits

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Technologies for Integrated Resource Analysis

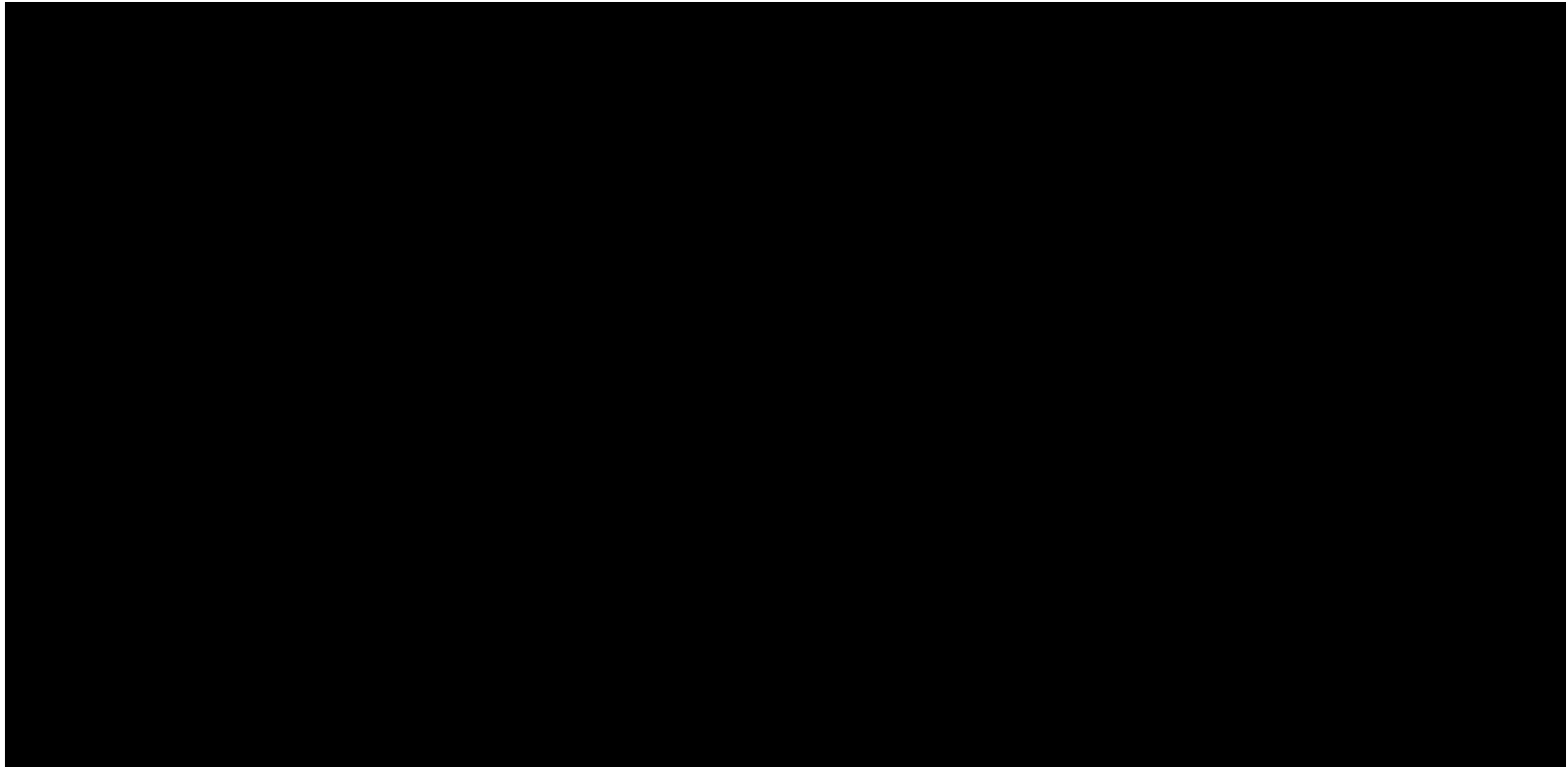
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Demand-Side Resource Analysis

KCP&L-MO Energy Savings

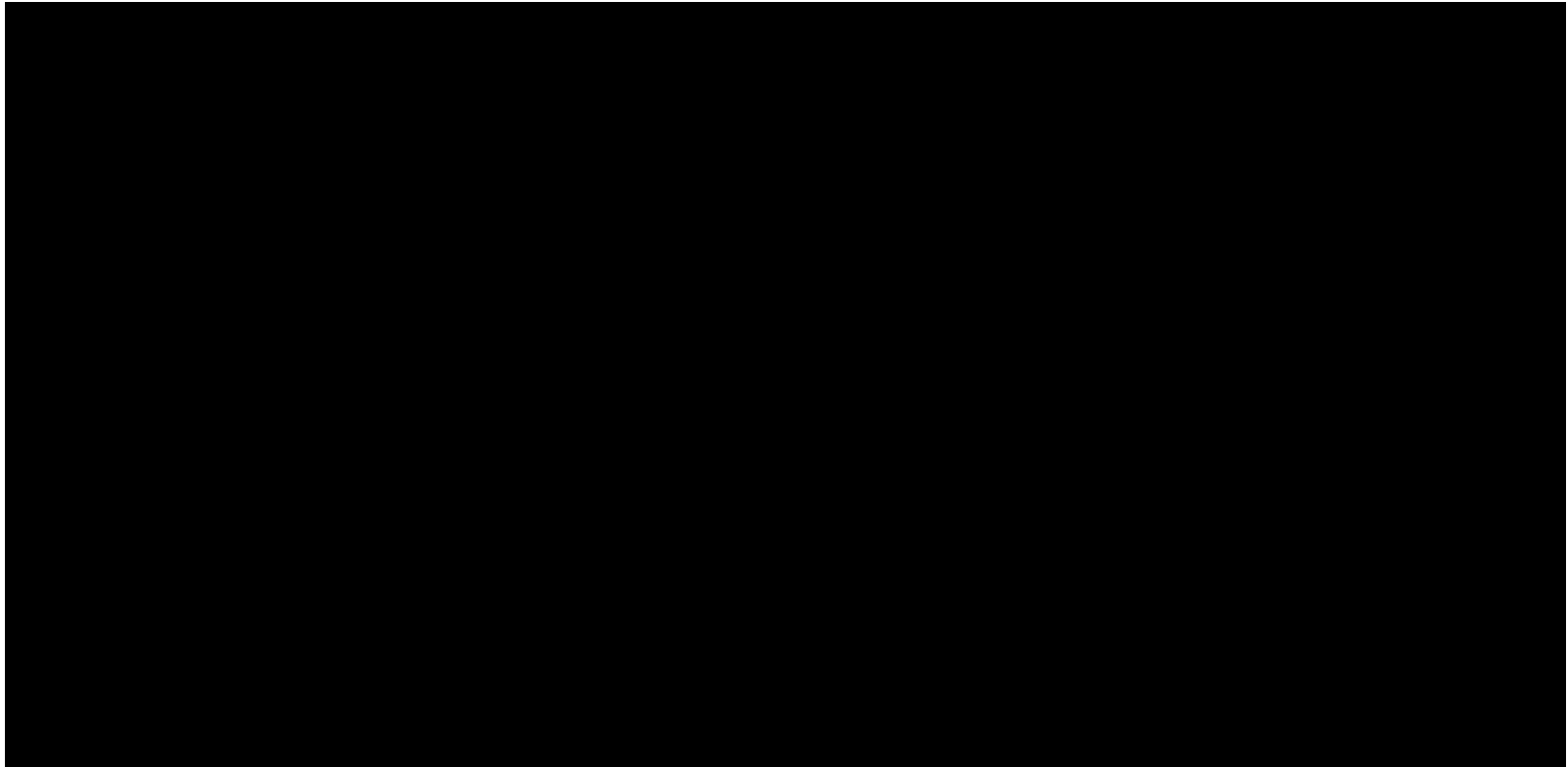
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* Note: The RAP and MAP estimates do not reflect C&I opt outs.

KCP&L-MO Demand Savings

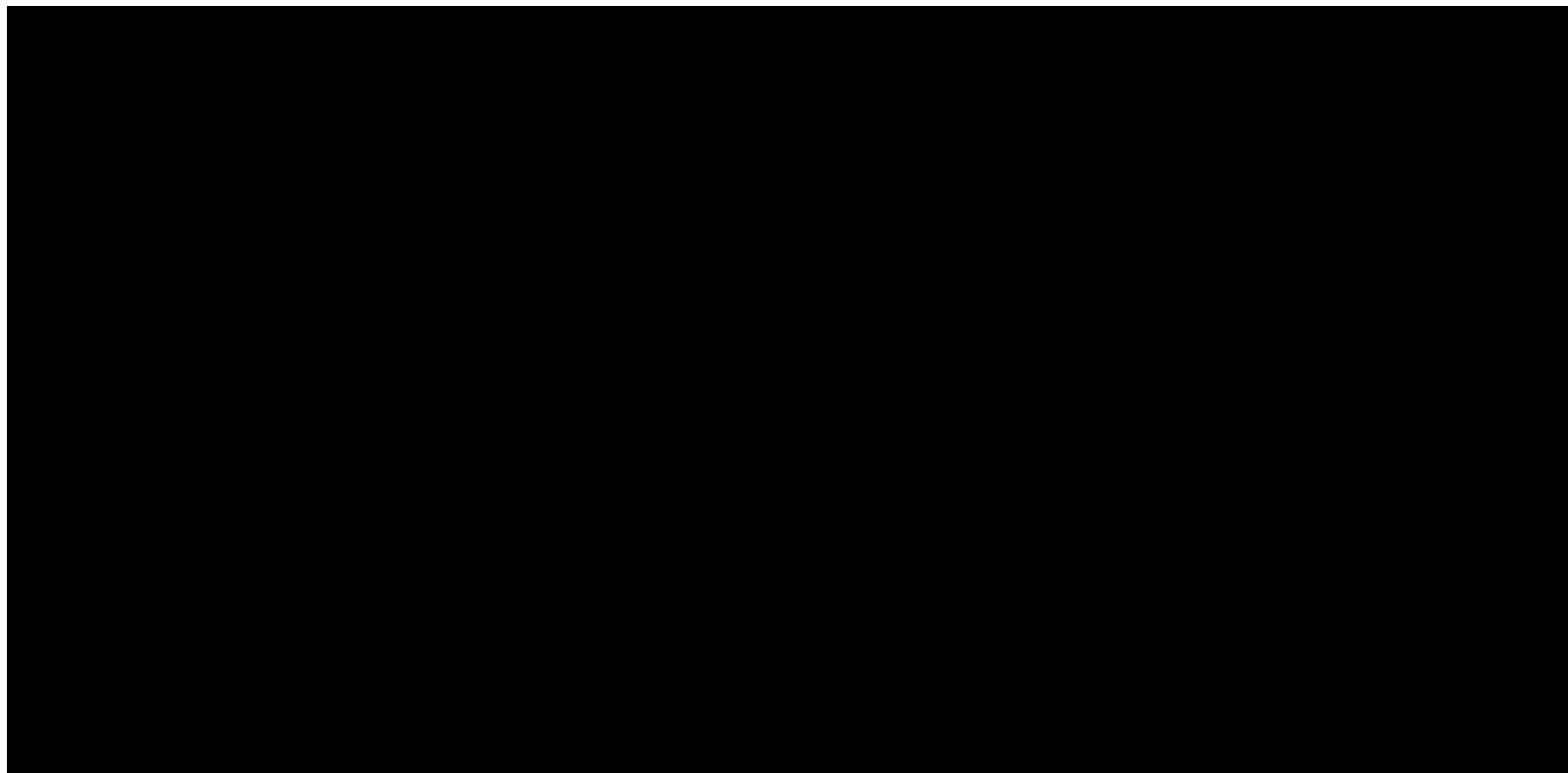
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GMO Energy Savings

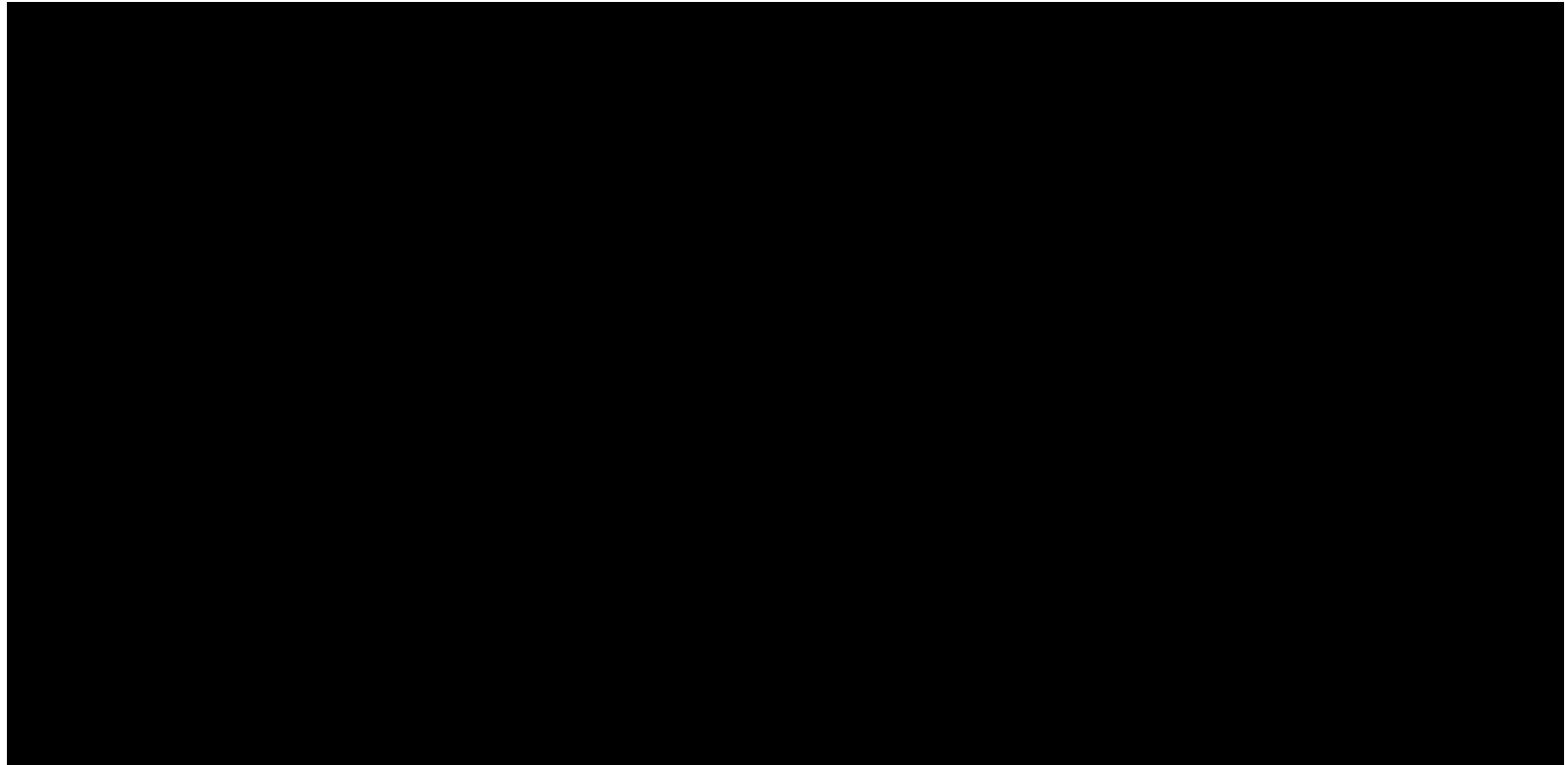
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GMO Demand Savings

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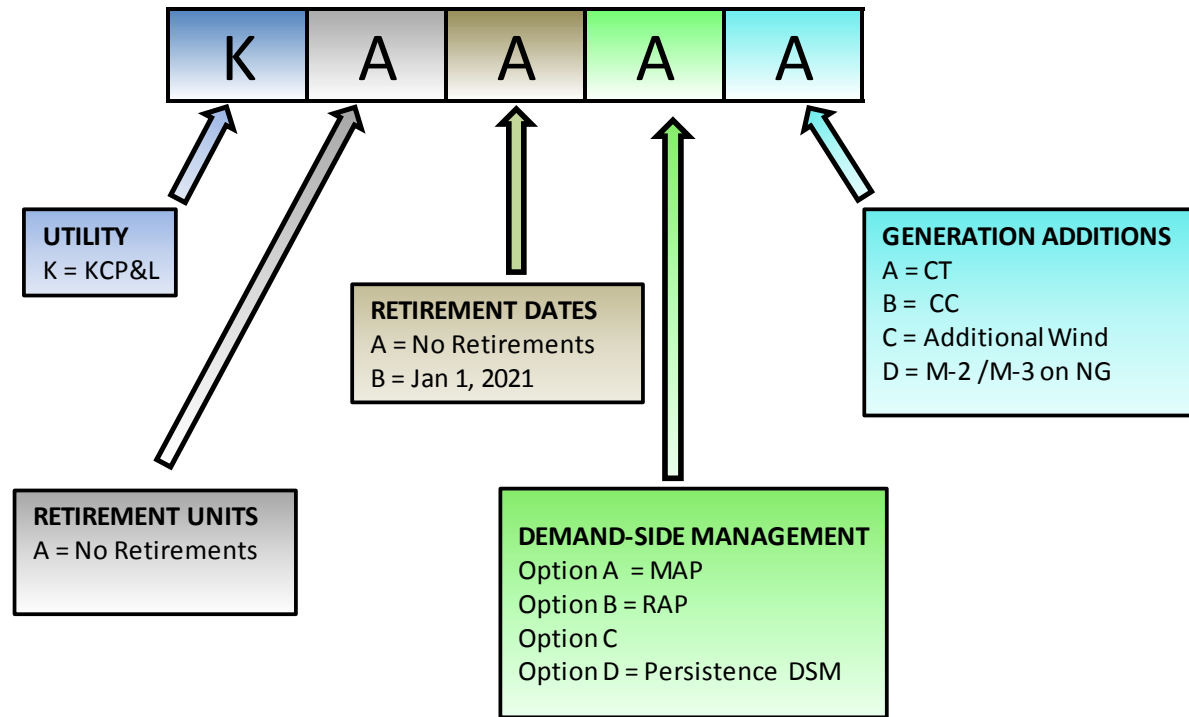


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Integrated Resource Planning

Potential Alternative Resource Plans – KCP&L

NAMING CONVENTION FOR ALTERNATIVE RESOURCE PLANS IN THE 2015 KCP&L IRP UPDATE



Definitions:

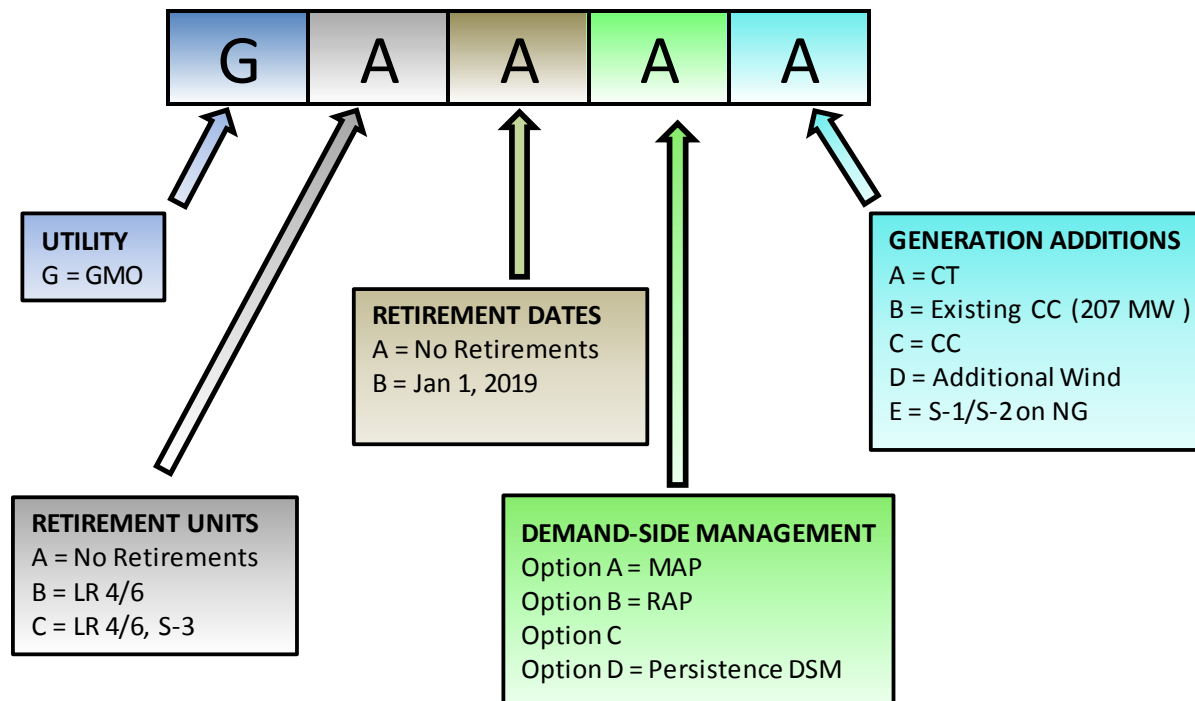
RAP - Realistic Achievable Potential
MAP - Maximum Achievable Potential

M-2 - Montrose-2
M-3 - Montrose-3

CT - Combustion Turbine
CC - Combined Cycle

Potential Alternative Resource Plans – GMO

NAMING CONVENTION FOR ALTERNATIVE RESOURCE PLANS IN THE 2015 GMO IRP UPDATE



Definitions:

RAP - Realistic Achievable Potential
MAP - Maximum Achievable Potential
S-1 - Sibley-1

LR 4/6 - Lake Road 4/6
S-2 - Sibley-2
S-3 - Sibley-3

CT - Combustion Turbine
CC - Combined Cycle