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2024 Integrated Resource Plan Stakeholder Updates

April 15, 2024

Stakeholder Information Updates

- Updated load forecasts
- Fuel price forecast and sensitivities
  - Gas price (Henry Hub)
- CO_2 price forecast and sensitivities
- NO_X price forecast and sensitivities
- SO_2 price forecast and sensitivities

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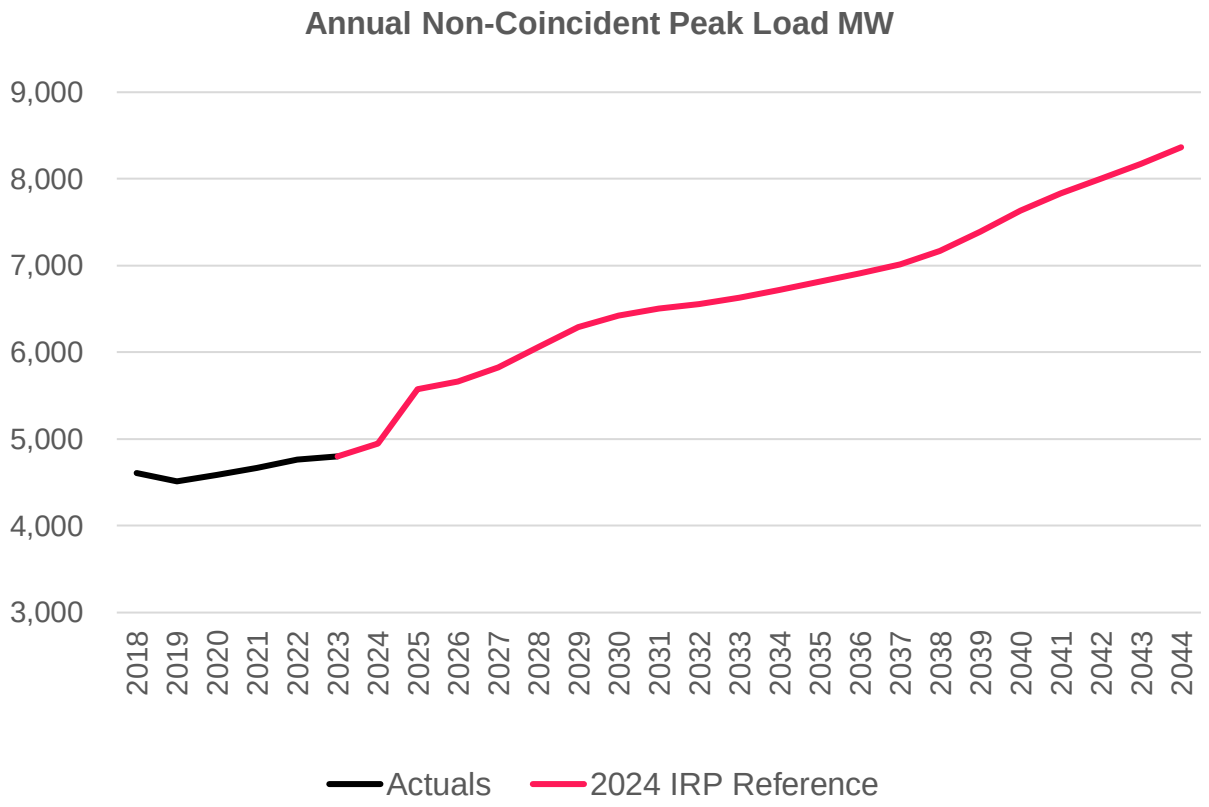
Load Forecast Process

Charles John

Load Forecasts - Scenario

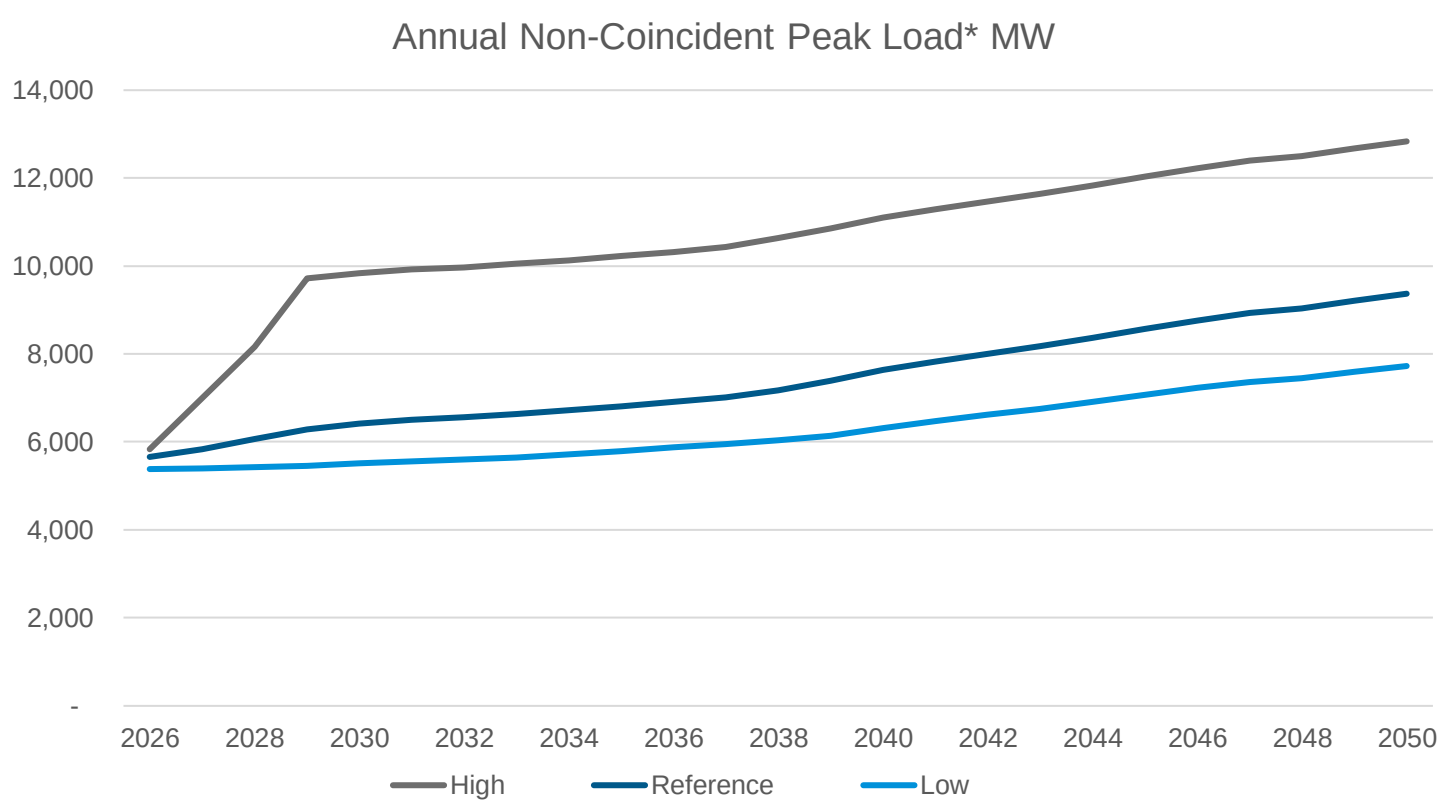
- Entergy Arkansas' reference case forecast serves as the basis for upcoming resource plans, as well as financial analysis and planning.
- Forecast sensitivity scenarios were developed to assess other potential future outcomes.
    - ❖ Low Scenario: decreased residential and commercial growth due to improved energy efficiency, reduced industrial load, and slower EV adoption
    - ❖ High Scenario: increases to industrial load



Load Forecasts – Elements and Peaks

- High and low scenarios depart from the reference case based on increasing/decreasing volumetric levers.

	Adjustments to Ref Case by Scenario	
Lever	**Low**	**High**
BTM Solar	Lower	Reference
EVs	Lower	Reference
Building Electrification	Lower	Reference
Energy Efficiency	Higher	Reference
Customer Count	Lower	Higher
Customer Usage (Industrial)	Lower	Higher



*Includes distribution losses

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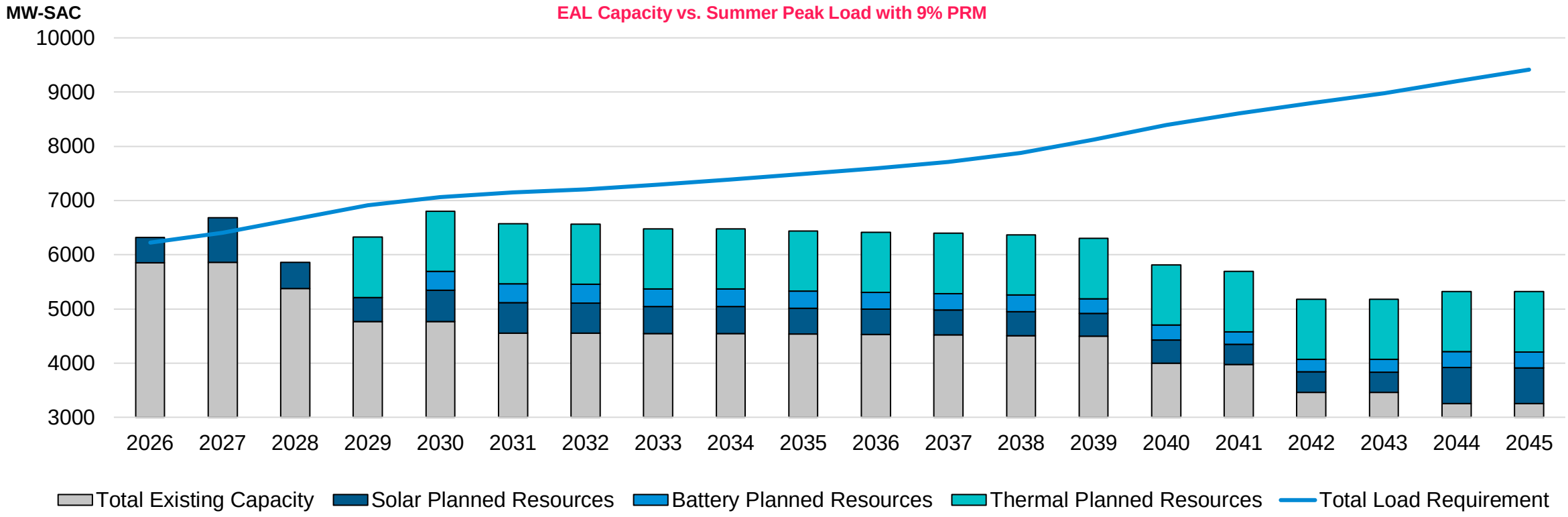
Futures and AURORA Modeling Overview

Daniel Boratko

Assessment of Capacity Need (Summer)

2026-2045



Planning Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Surplus/Deficit	89	279	(802)	(590)	(255)	(575)	(644)	(815)	(906)	(1049)	(1181)	(1320)	(1511)	(1825)	(2581)	(2919)	(3619)	(3806)	(3879)	(4099)

1. *Notes:*
- Surplus/Deficit table reflects the average seasonal accredited capacity and a load requirement of the summer MISO coincident peak with a PRM of 9%. Existing thermal resource capacity reflects current SAC ratings. Non-thermal capacity reflects estimated average Effective Load Carrying Capability ("ELCC"). Existing and planned non-thermal resource ELCC varies based on market and EAL solar, wind, and battery storage capacity.

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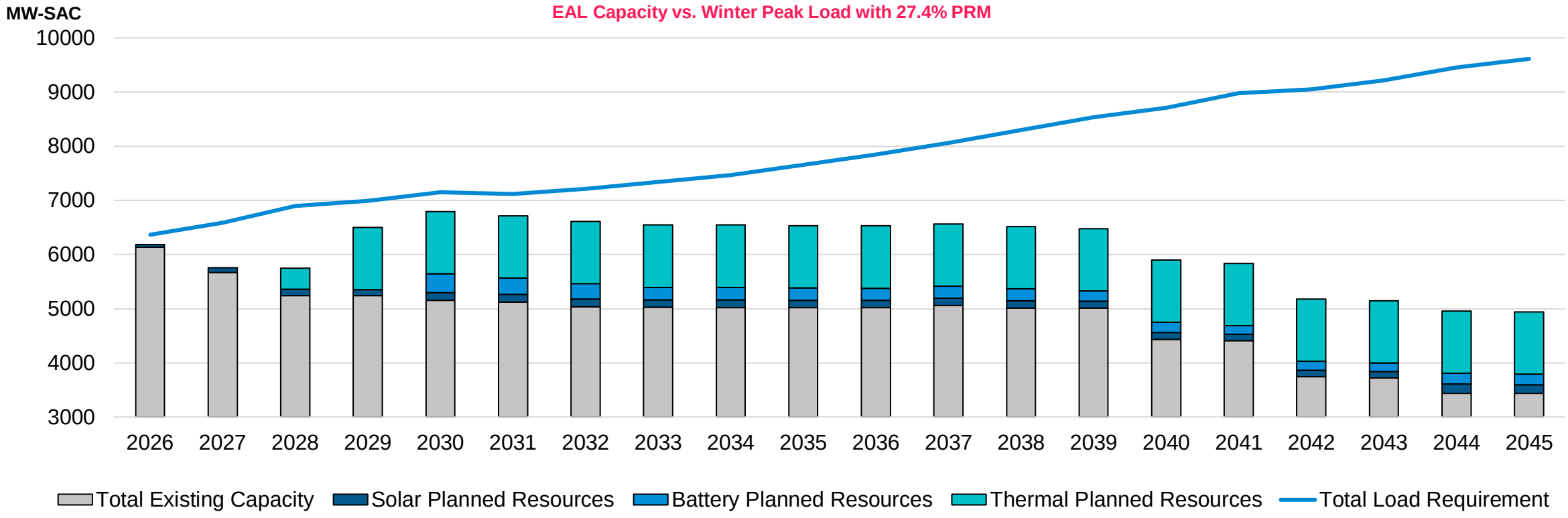
Assessment of Capacity Need (Winter)

2026-2045



Planning Year	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Surplus/Deficit	(179)	(831)	(1147)	(488)	(358)	(406)	(599)	(797)	(919)	(1122)	(1321)	(1499)	(1782)	(2053)	(2807)	(3147)	(3871)	(4069)	(4498)	(4670)

1. Notes:

- Surplus/Deficit table reflects the average seasonal accredited capacity and a load requirement of the winter MISO coincident peak with a PRM of 27.4%. Existing thermal resource capacity reflects current SAC ratings. Non-thermal capacity reflects estimated average Effective Load Carrying Capability ("ELCC"). Existing and planned non-thermal resource ELCC varies based on market and EAL solar, wind, and battery storage capacity.

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IRP Futures

EAL plans to rely on the four futures outlined below to assess supply portfolios across a range of market outcomes.
The Long-Term Capacity Expansion (LTCE) for all futures will be conducted on a summer and winter basis to align with MISO's new seasonal construct.

	Future 1 - Existing Fleet	Future 2A - Business as Usual	Future 2B - CAA 111	Future 3 - Accelerated Change
Peak Load & Energy Growth	• Low	• Reference	• Reference	• High
Natural Gas Prices	• Low	• Reference	• Reference	• High
MISO Coal Deactivations[1]	• All ETR coal by 2030 • All MISO coal aligns with MTEP Future 1 (46 year life)	• All ETR coal by 2030 • All MISO coal aligns with MTEP Future 2 (36 year life)	• All ETR coal by 2030 • All MISO coal by 2030	• All ETR coal by 2030 • All MISO coal aligns with MTEP Future 3 (30 year life)
MISO Natural Gas CT and CC Deactivations[1]	• 50 year life	• 45 year life	• 45 year life	• 35 year life
MISO Natural Gas Other Deactivations[1]	• 46 year life	• 36 year life	• Steam gas EGUs by 2030	• 30 year life
Carbon Tax Scenario	• No Cost	• Reference Cost	• Reference Cost	• High Cost
Renewable Capital Cost	• High Cost	• Reference Cost	• Reference Cost	• Low Cost
Narrative	• Lower growth from the residential and industrial sector is forecasted which reduces the need to transition from the existing fleet. • Renewable cost assumed to be high.	• Moderate amount of industrial growth forecasted which would drive the need for new development.	• Entergy and utilities across MISO deactivate existing units early to be compliant with proposed changes to Clean Air Act Section 111(d). • New resources built would comply with proposed changes to 111(b). • Assumes extension. 45Q through study period	• High energy growth from both industrial and residential sectors forecasted. • Renewable cost assumed to be low due to more efficient supply chain.

1. See MISO Futures Report Series 1A for additional detail

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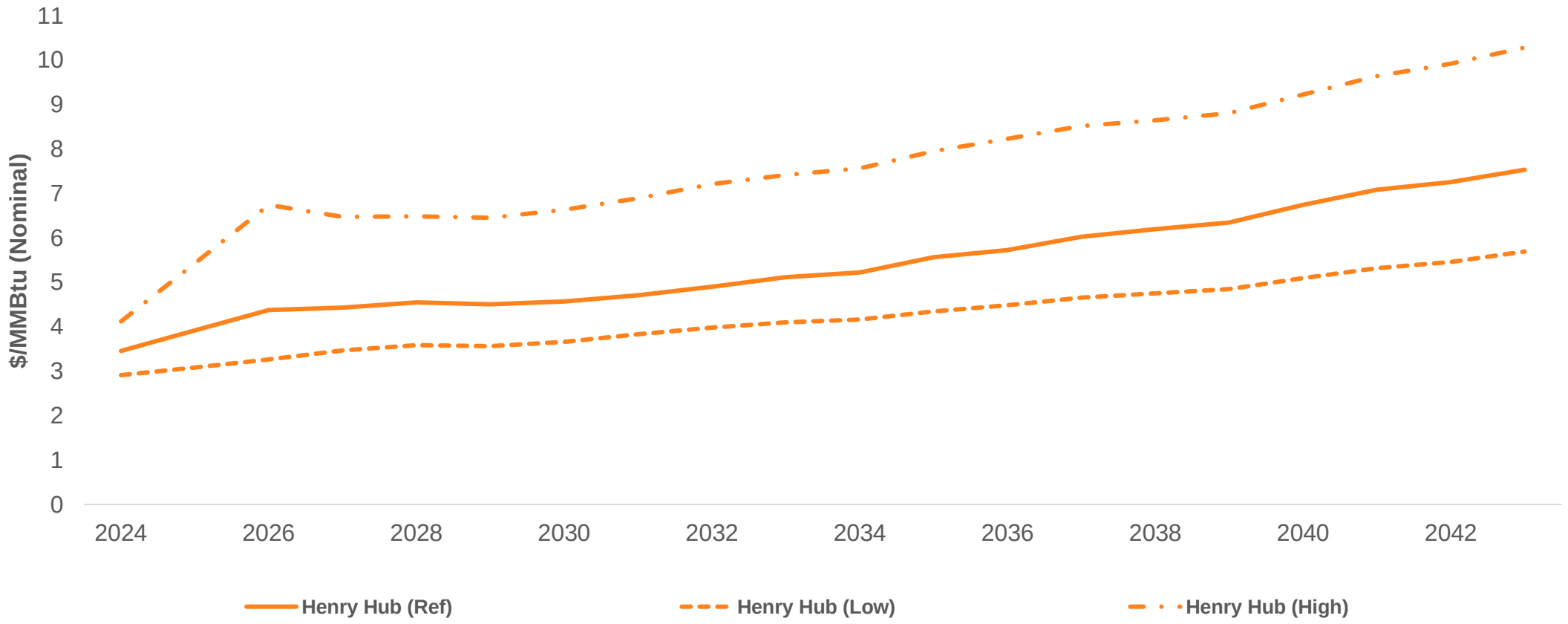
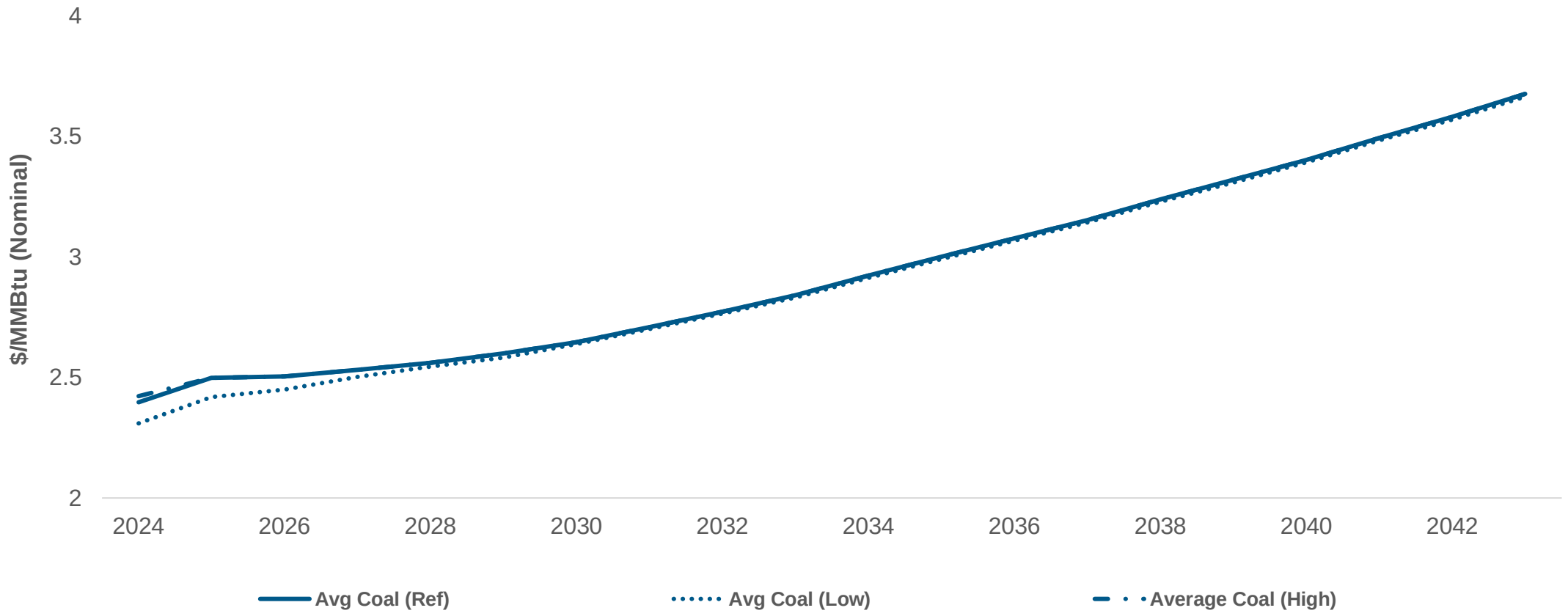
Fuel and Emission Price Forecast

Daniel Boratko

Gas Price Forecasts and Sensitivities

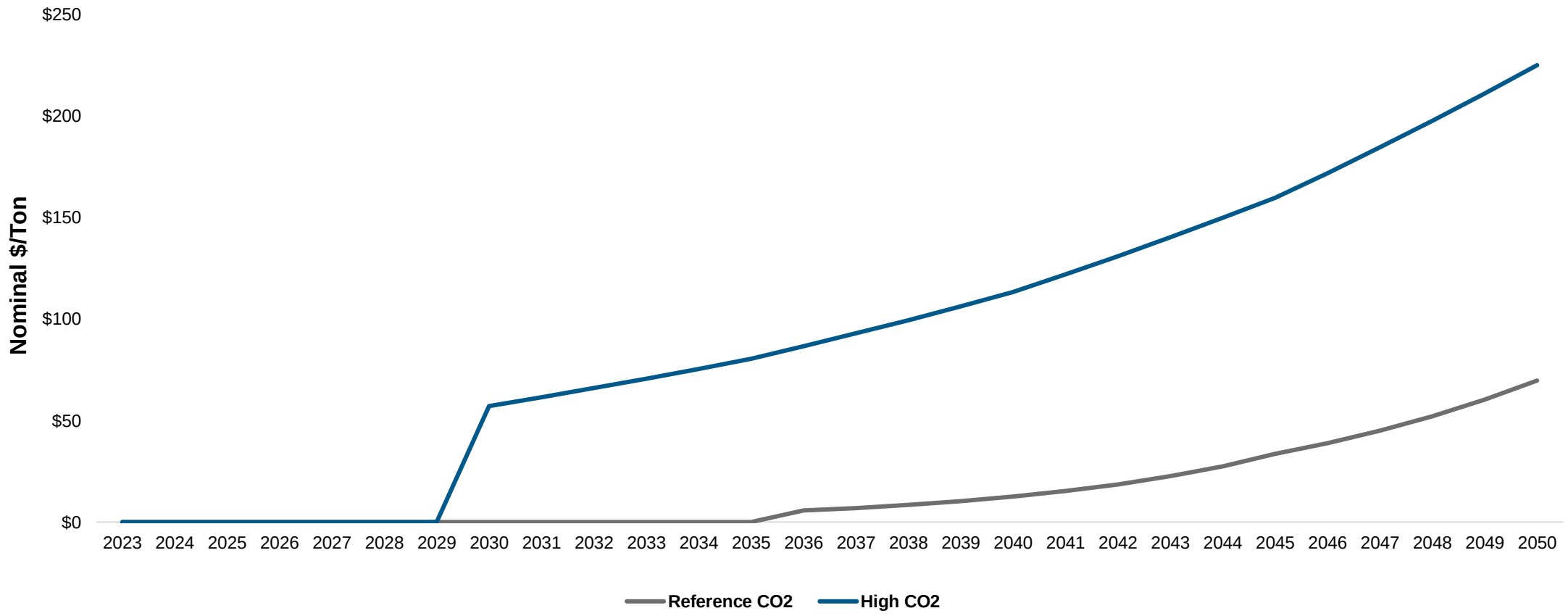


Coal Price Forecasts and Sensitivities



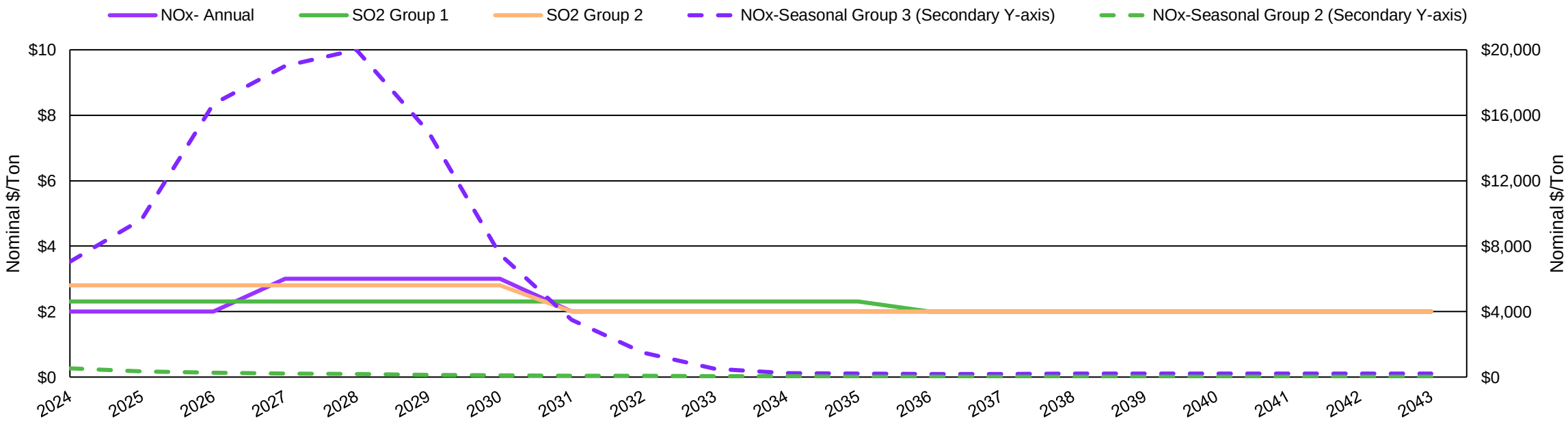
CO_2 Emission Price Forecast and Sensitivities

- Low case assumes no CO2 price



NOx Emission Price Forecasts

- Forecast assumes impact of the proposed Good Neighbor Plan on the Cross-State Air Pollution Rule (CSAPR)
- NOx and SO2 Prices are taken from EVA Fuel Price Q3 2023 Forecast
- Louisiana, Mississippi, and Arkansas are subject to compliance under the ozone-season NOx program
- Louisiana is assumed to be in NOx Seasonal Group 3 while the other 3 state are in NOx Seasonal Group 2



SO_2 Emission Price Forecasts

- Forecast assumes impact of the proposed Good Neighbor Plan on the Cross-State Air Pollution Rule (CSAPR)
- NOx and SO2 Prices are taken from EVA Fuel Price Q3 2023 Forecast
- Louisiana, Mississippi, and Arkansas are subject to compliance under the ozone-season NOx program
- Louisiana is assumed to be in NOx Seasonal Group 3 while the other 3 state are in NOx Seasonal Group 2