



SLEMCO: Integrated Resource Plan

Methodology and Data Assumptions

PREPARED BY: DAYMARK ENERGY ADVISORS
PREPARED FOR: SLEMCO: IRP STAKEHOLDER SESSION
DATE: MAY 14, 2026



Agenda

1. SLEMCO Cooperative Overview
2. IRP General Order Requirements and Timeline
3. SLEMCO Load Forecast & Capacity Position
4. IRP Methodology and Assumptions Overview
5. Planned Scenarios and Sensitivities
6. Next Steps

SLEMCO: Cooperative Overview

Southwest Louisiana Electric Membership Corporation (“SLEMCO”) provides cost effective, reliable retail electric service to 121,000 meters across nine parishes in Louisiana. SLEMCO obtains all its members' power needs pursuant to three agreements:

1. A 9.75-year full requirements power supply agreement (“PSA”) with NextEra Energy Marketing, LLC (“NEM”)
2. Long-term contract with Southwestern Power Administration (“SWPA”) for energy and capacity
3. A 25-year solar PPA with NextEra Energy Resources, LLC (“NEER”), starting in 2027

LPSC General Order R-36262

- The LPSC's General Order No. R-36262 requires that electric cooperatives in Louisiana file an Integrated Resource Plan ("IRP"). SLEMCO filed to initiate its IRP process on March 2, 2026. Pursuant to Order No. R-36262, this presentation discusses the inputs and methodology being used for the IRP.
- The General Order also required a Short-Term Interim Report on each cooperative's integrated resource planning, which SLEMCO filed on January 2nd, 2025.

SLEMCO IRP Timeline

Step	Description	Months from IRP Filing	Expected Dates
1	SLEMCO submits request to initiate IRP	At filing date	March 2, 2026
2	SLEMCO files data assumptions and description of studies to be performed	1	April 2, 2026
3	SLEMCO holds first stakeholder meeting	2	May 14, 2026
4	Stakeholders may file written comments	4	July 14, 2026
5	SLEMCO publishes draft IRP Report	12	March 2, 2027
6	SLEMCO holds second stakeholder meeting	13	April 2, 2027
7	Stakeholders may file comments about draft IRP report	15	June 2, 2027
8	Staff files comments on draft IRP	16	July 2, 2027
9	Final IRP filed by SLEMCO	19	October 1, 2027
10	Stakeholders submit list of disputed issues and alternative recommendations	21	Dec 1, 2027
11	Staff submits recommendations to the Commission including whether or not a proceeding is necessary to resolve disputed issues	22	Jan 3, 2028
12	Commission order acknowledging IRP or sets hearing for disputed issues	24	March 2, 2028

SLEMCO Load Forecast & Capacity Position

Load Forecast Methodology

- **Energy Forecast**

Econometric models were applied to forecast customer count, average use, or total sales for each customer class, controlling for economic and weather variables

- **Peak Load Forecast**

A 5-year average historical load profile, adjusted for week-day/weekend effects, using weather normalized historical data from NEM, was applied to forecasted system sales to produce a 20-year hourly forecast.

- **Volatility Shape Adjustment**

This average load profile was then adjusted to match observed variability in winter and summer monthly peaks in the prior five years to ensure the forecast captured winter storm impacts and other sources of year-to-year variability.

SLEMCO Energy Forecast

GWh Purchased by Class (1985–2046)

CONFIDENTIAL



Note: Total Energy Purchases are adjusted for expected losses and own use.

SLEMCO Seasonal Peak Load Forecast

CONFIDENTIAL

Year	Winter MW	Spring MW	Summer MW	Fall MW	Annual Load Factor

SLEMCO Seasonal Peak Load Forecast

CONFIDENTIAL

Year	Winter MW	Spring MW	Summer MW	Fall MW	Load Factor

SLEMCO: Going-In Capacity Position (Winter)

CONFIDENTIAL

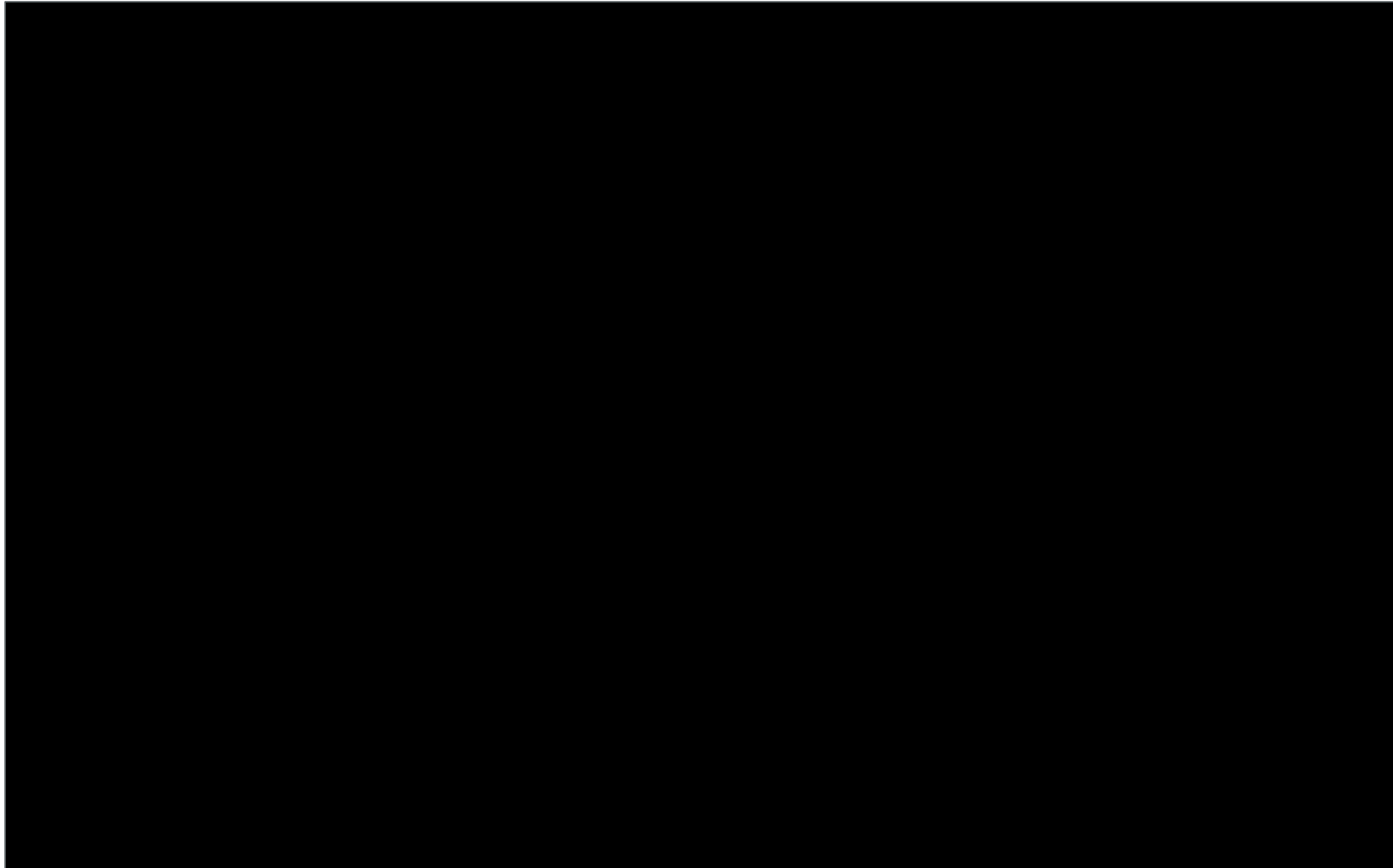


SLEMCO: Going-In Capacity Position (Summer)

CONFIDENTIAL

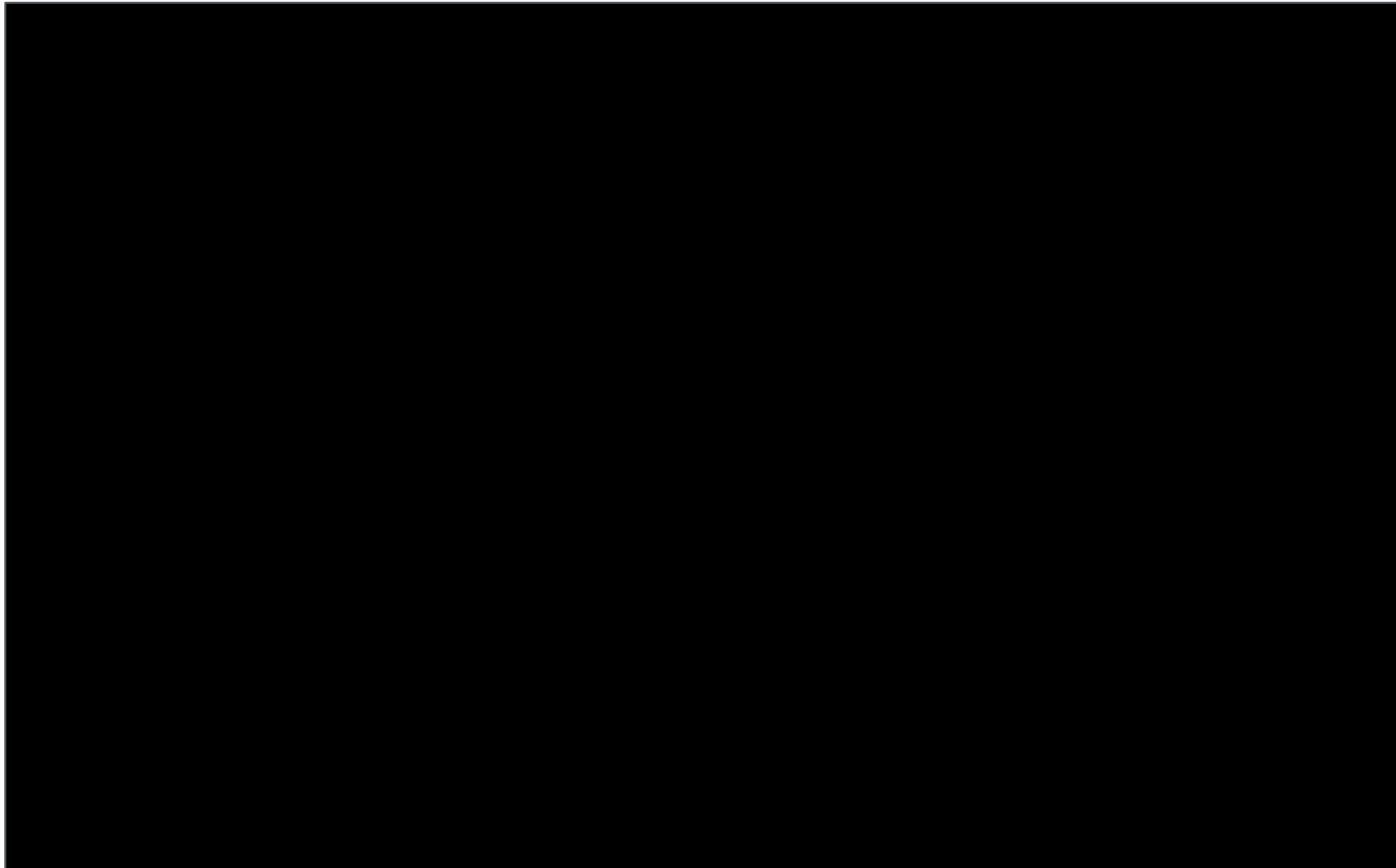
SLEMCO: Going-In Capacity Position (Spring)

CONFIDENTIAL



SLEMCO: Going-In Capacity Position (Fall)

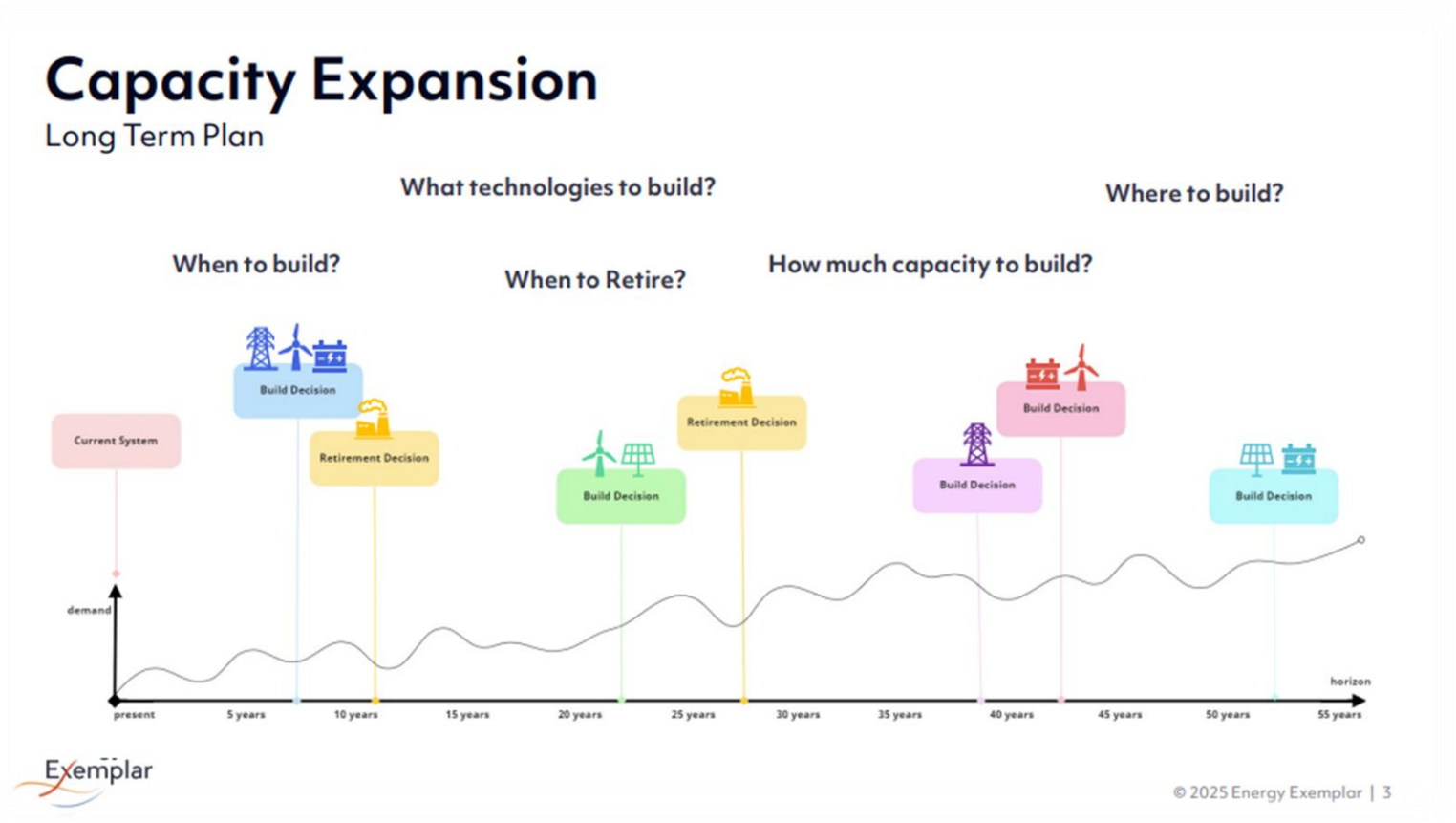
CONFIDENTIAL



SLEMCO IRP Modeling: Methodology and Assumptions Overview

Modeling Software: PLEXOS

- Daymark uses the PLEXOS energy market modeling & simulation software for its resource planning studies. The model uses mixed-integer linear programming (MILP) to find the least cost solution over planning horizons subject to operational constraints.
- The long-term plan is designed for capacity expansion — and its objective is to minimize the net present value of capital cost and production costs over the planning period.
- Daymark will use PLEXOS to forecast long-term capacity expansion for the MISO market and the SLEMCO portfolio.
- MISO market prices plus other key inputs will then be modeled across multiple scenarios and sensitivities to test potential portfolios to meet SLEMCO's future energy and capacity needs.

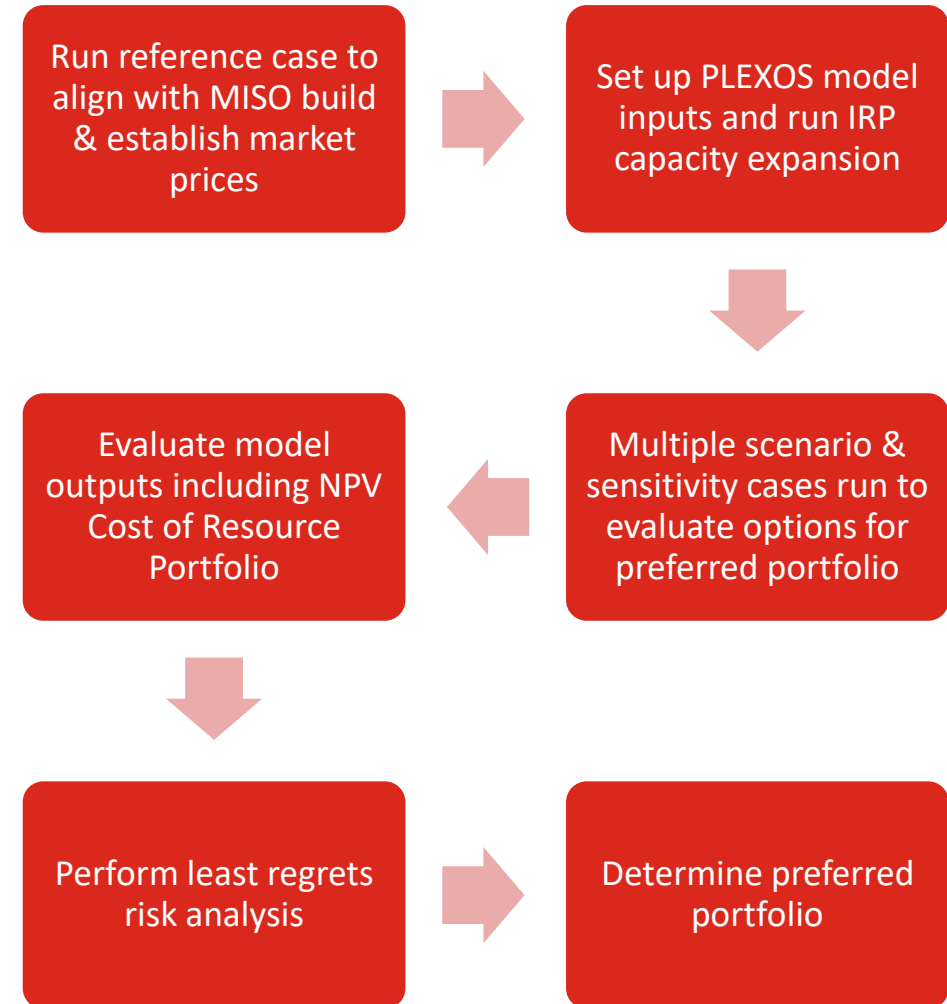


IRP Modeling Methodology

Establish Inputs and Planning Assumptions



Key Modeling Steps



Modeling Assumptions: Natural Gas Price Forecast

Natural Gas Price Forecast Methodology

- Daymark based its natural gas forecast on publicly available data sources. NYMEX Henry Hub prices were applied for the 2027–2029 period. For 2030, prices were calculated as an average of NYMEX and EIA AEO2025 projections. From 2031 onward, the forecast relies exclusively on EIA AEO2025 Henry Hub prices.
- The AEO2025 Reference Case: Assumes current law as of 2024 with no policy updates throughout the 2024-2050 horizon.

Modeling Assumptions: Seasonal Planning Reserve Margins

- MISO identifies the specific capacity requirements for summer, fall, winter, and spring seasons.
- In Planning Year (“PY”) 2028/29, MISO will transition to Planning Reserve Margin (“PRM”) requirements based on a new Direct Loss of Load (“DLOL”) methodology for resource accreditation.
- MISO released the initial DLOL-based PRMs that were used as part of their Series 2 Future Planning Scenarios.¹ This IRP adopts those initial PRM requirements and holds these values constant across the 20-year planning horizon.
 - Summer (June, July, August): **1.7%**
 - Fall (September, October, November): **5.3%**
 - Winter (December, January, February): **5.6%**
 - Spring (March, April, May): **1.1%**

1. MISO Series 2 Futures Workshop, *Resource Adequacy Assumptions*, March 19, 2025.
<https://cdn.misoenergy.org/20250319%20Futures%20Redesign%20Workshop%20Item%2004%20Resource%20Adequacy685483.pdf>.

Supply-side Resource Options Reviewed

- SLEMCO evaluated resource cost and operational characteristics from multiple sources including NREL's Annual Technology Baseline dataset, EIA, and Lazard.

Thermal	Renewables/Storage	Emerging Technologies
• Natural Gas Combined Cycle • Natural Gas Combustion Turbine • Natural Gas RICE • Biomass	• Utility-scale solar • Wind • Battery Storage (Up to 12-hr Duration) • Hybrid solar + storage • Geothermal • Hydro	• Long duration energy storage (100-hr) • Nuclear Small Modular Reactors ("SMRs") • Hydrogen • Carbon Capture Sequestration ("CCS")

SLEMCO Available Resource Options

- Full resource option list was screened to focus modeling on options that are operationally and economically feasible for SLEMCO, while including emerging technologies such as SMRs to test applicability under different scenarios and sensitivities.
- Resource cost characteristics are aligned with MISO Series 2 Futures Assumption Workbook, which sourced data from the 2024 NREL ATB Workbook.²
 - Natural Gas CC and CT costs are the exception. Given historically elevated costs for gas units, CC and CT costs were aligned with current market costs and sourced from projects seeking regulatory approval in recent filings.
 - Reference case CC and CT costs escalated into future years using growth rates in MISO Series 2 Futures Assumption Workbook.

Type	Technology	Capacity MW	Capital Construction Cost \$/kW, '26	Capital Construction Cost \$/kW, '31	Capital Construction Cost \$/kW, '36	Capital Construction Cost \$/kW, '41	Capital Construction Cost \$/kW, '45
Baseload	Nuclear SMR	300	N/A	\$ 9,854	\$ 9,050	\$ 8,355	\$ 8,137
	Natural Gas CC (1x1, adv. class)	640	\$ 1,950	\$ 2,108	\$ 2,277	\$ 2,468	\$ 2,630
Intermittent	Solar	100	\$ 1,433	\$ 1,264	\$ 1,087	\$ 1,118	\$ 1,135
	Wind	200	\$ 1,527	\$ 1,554	\$ 1,658	\$ 1,763	\$ 1,846
	4h Li-ion Battery	60	\$ 1,698	\$ 1,638	\$ 1,708	\$ 1,769	\$ 1,807
	12h Li-ion Battery	60	\$ 3,714	\$ 3,490	\$ 3,610	\$ 3,702	\$ 3,750
Peaking	Natural Gas CT - Adv. Class	233	\$ 1,700	\$ 1,845	\$ 1,999	\$ 2,160	\$ 2,296

2. MISO Series 2 Futures Redesign Assumptions Book, December 19, 2025.
<https://cdn.misoenergy.org/Futures%20Redesign%20Assumptions%20Book%20-%20Updated%20Dec%202025732902.pdf>.

OBBA Tax Credit Assumptions

Tax credits reflect MISO's assumptions as of December 2025, which incorporate One Big Beautiful Bill Act ("OBBA") provisions.^{3,4}

- **Wind and solar tax credits eliminated after 2027**
 - No tax credits applied if in-service in 2028
- **Nuclear/SMR PTC credits unaffected**
 - Implemented as a generation credit
 - Base-level PTC assumes 1.5¢/kWh in 1992, which is then escalated based on historical inflation rates
- **Battery ITC credits**
 - Full 30% reduction to build cost applied if installed prior to 2037
 - Thereafter, credit phased out over following 3 years
 - 22.5% ITC if installed in 2037, 15% ITC if installed in 2038, 0% ITC if installed after 2038.

3. *MISO Series 2 Futures Redesign Assumptions Book*, December 19, 2025.
<https://cdn.misoenergy.org/Futures%20Redesign%20Assumptions%20Book%20-%20Updated%20Dec%202025732902.pdf>.

4. MISO Futures Redesign Project Status & Schedule, August 29, 2025.
<https://cdn.misoenergy.org/20250829%20Workshop%20Item%2001%20Intro%20%20Overview715610.pdf>

Direct Loss of Load Accreditation Results

- Future accreditation values are aligned with the MISO Series 2, Future 2 DLOL-based accreditation results published in February 2026.⁵
 - Storage DLOL-based accreditation amounts and years are taken from MISO's Series 2 Futures Redesign Assumptions Workbook (December 2025).⁶

5. MISO Series 2 Futures Stakeholder Workshop, *Resource Adequacy Review, Capacity Expansion, Siting*. February 26, 2026. https://cdn.misoenergy.org/20260226_Workshop%20Item%2002%20Resource%20Adequacy_Update%2020260225742968.pdf.

6. MISO Series 2 Futures Redesign Assumptions Book, December 19, 2025. <https://cdn.misoenergy.org/Futures%20Redesign%20Assumptions%20Book%20-%20Updated%20Dec%202025732902.pdf>.

Fuel Type	Year	MISO Series 2, Future 2 Accreditation Results			
		Summer	Fall	Winter	Spring
Solar	2030	6%	2%	1%	4%
	2035	3%	1%	0%	2%
	2045	5%	3%	1%	3%
Wind	2030	10%	10%	11%	14%
	2035	9%	10%	12%	11%
	2045	6%	8%	10%	7%
Storage	2030	97%	100%	84%	99%
	2033	97%	98%	77%	86%
	2043	83%	77%	30%	75%
Gas	2030	81%	76%	77%	67%
	2035	82%	76%	79%	76%
	2045	85%	77%	82%	76%
Oil	2030	82%	74%	77%	73%
	2035	84%	77%	82%	78%
	2045	92%	86%	84%	83%
Hydro	2030	89%	80%	83%	82%
	2035	89%	83%	86%	80%
	2045	86%	85%	88%	84%
Nuclear	2030	90%	85%	83%	76%
	2035	89%	86%	85%	80%
	2045	91%	81%	89%	76%
Coal	2030	80%	75%	78%	65%
	2035	81%	76%	78%	69%
	2045	82%	72%	82%	71%
Combined Cycle	2030	86%	74%	84%	73%
	2035	82%	76%	87%	74%
	2045	84%	77%	88%	72%

Energy Efficiency Evaluation

- IRP will incorporate potential cost-effective energy efficiency (“EE”) and demand-side management (“DSM”) measures
- Evaluation will consider high potential, net beneficial program options specific to SLEMCO’s customer characteristics and priorities
- Impacts of EE/DSM measures will include impacts on energy and seasonal peak demand forecasts
- Scenario analysis will model potential long-term impacts of EE/DSM on future resource needs and capacity expansion strategy

IRP Scenarios & Sensitivities

Description of Planned Scenarios

- SLEMCO will evaluate three scenarios as part of the IRP. Scenarios are based on the *MISO Series 2 Futures 1-3* parameters⁷
- **Future 1** reflects a low-end demand growth scenario with reduced market-wide capacity expansion.
- **Future 2** reflects a *status quo* case with moderate reindustrialization, electrification, and data center growth. This scenario represents the *Reference Case* for this IRP.
- **Future 3** reflects high-end demand growth scenario with increased region-wide capacity expansion.

7. MISO Futures Series 2: Introduction to MISO Futures Redesign Series 2. February 28, 2025.
<https://cdn.misoenergy.org/20250228%20Futures%20Redesign%20Workshop%20Item%2001%20Series%202%20Futures%20Introduction681092.pdf>.

Description of Planned Sensitivities

- Five sensitivities planned to be performed under the Reference Case.
- By isolating and changing a single assumption, sensitivities demonstrate how impactful a given assumption can be on the overall resource portfolio.
- Sensitivities serve as important checks on scenario results and can help inform the selection of a preferred portfolio.

Sensitivities
High CT cost trajectory
Low CT cost trajectory
High natural gas price
Low natural gas price
Extreme Weather Volatility (high summer and winter peaks)

Next Steps

- A signed NDA will be required to receive confidential modeling assumptions in an electronic format.
- SLEMCO will incorporate stakeholder feedback and continue refining data assumptions and methodologies.
- Draft IRP is scheduled for March 2027.