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April 2, 2026

CC: AV/TB  
LA PUBLIC SERVICE COMM  
APR 02 2026 AM 09:17

Via hand delivery

Ms. Kris Abel  
Records and Recording Division  
Louisiana Public Service Commission  
602 North Fifth Street, Galvez Bldg, 12<sup>th</sup> Floor  
Baton Rouge, LA 70802-5312

Re: Southwest Louisiana Electric Membership Corporation, ex parte  
In re: Request to Initiate 2026 Integrated Resource Planning process pursuant to  
General Order (Corrected) dated August 24, 2024 (R-36262).  
LPSC Docket No. I-37864

Dear Ms. Abel:

Please find enclosed three sets of the HSPM version and public version of Southwest Louisiana Electric Membership Corporation's Data Inputs and Assumptions to be filed in reference to the above captioned docket. The HSPM version is being submitted under seal pursuant to LPSC Rule 12.1. Please file the Public Version into the docket of this matter and present the sealed envelopes containing the HSPM Version to LPSC Staff. I am also enclosing a copy of the HSPM version and the public version which I ask that you please date-stamp and return to me.

Also enclosed are three copies of SLEMCO's IRP Databook in its native format stored on thumb drives which are being submitted as HSPM and under seal pursuant to LPSC Rule 12.1.

With kind regards, I am,

Very truly yours,

**DAVIDSON, MEAUX, SONNIER, McELIGOTT,  
FONTENOT, GIDEON & EDWARDS**

  
THEODORE G. EDWARDS, IV  
CHRISTOPHER J. PIASECKI

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Enclosure  
Cc: Service List

Hand

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APR 02 2026 AM 09:18

PUBLIC VERSION



# SLEMCO: Integrated Resource Plan

Methodology and Data Assumptions

PREPARED BY: DAYMARK ENERGY ADVISORS  
PREPARED FOR: SLEMCO  
DATE: APRIL 2, 2026



## SLEMCO: Cooperative Overview

Southwest Louisiana Electric Membership Corporation (“SLEMCO”) provides cost effective, reliable retail electric service to 117,000 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 2<sup>nd</sup>, 2025 in Docket No. R-36262.

# 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

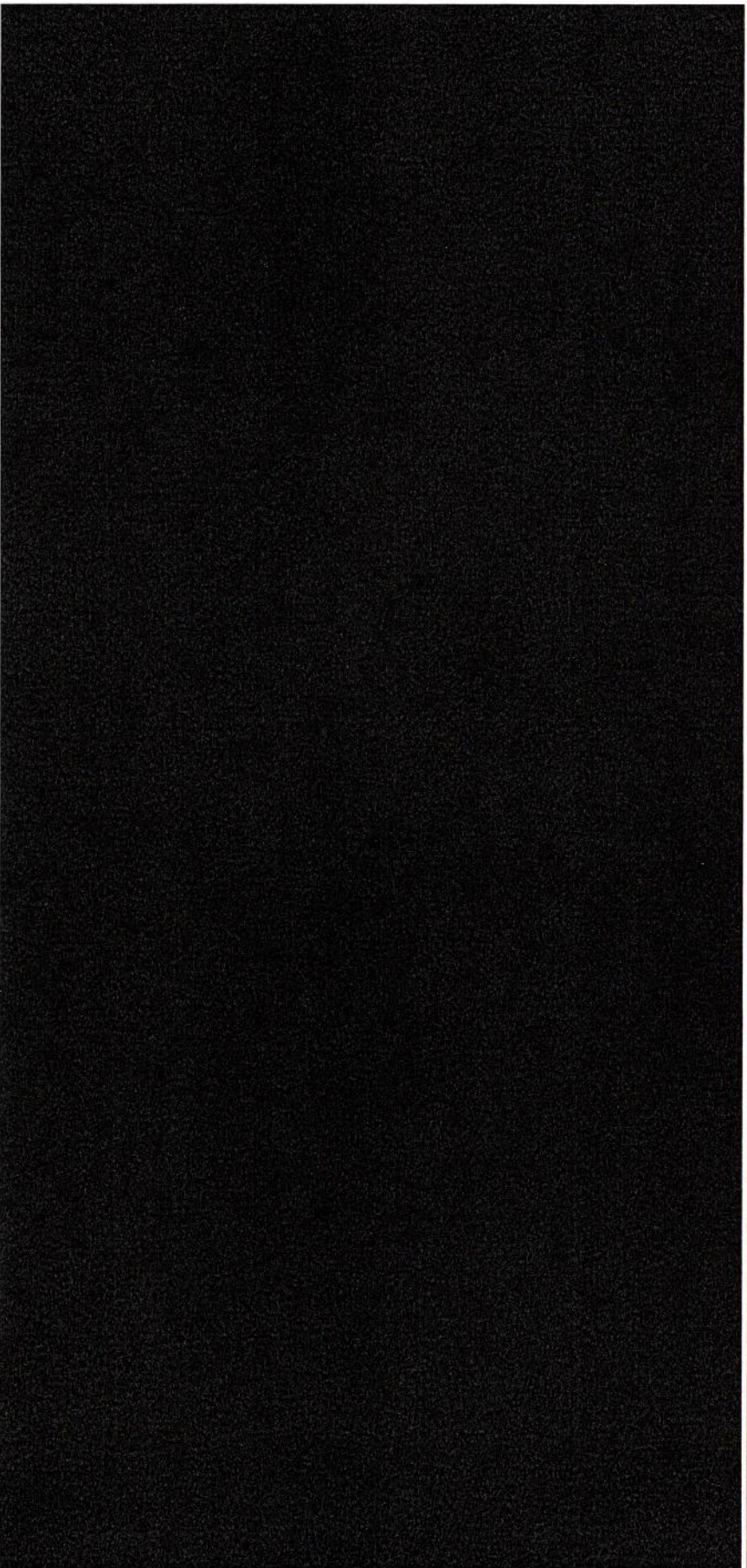
- **Peak Load Forecast**

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.

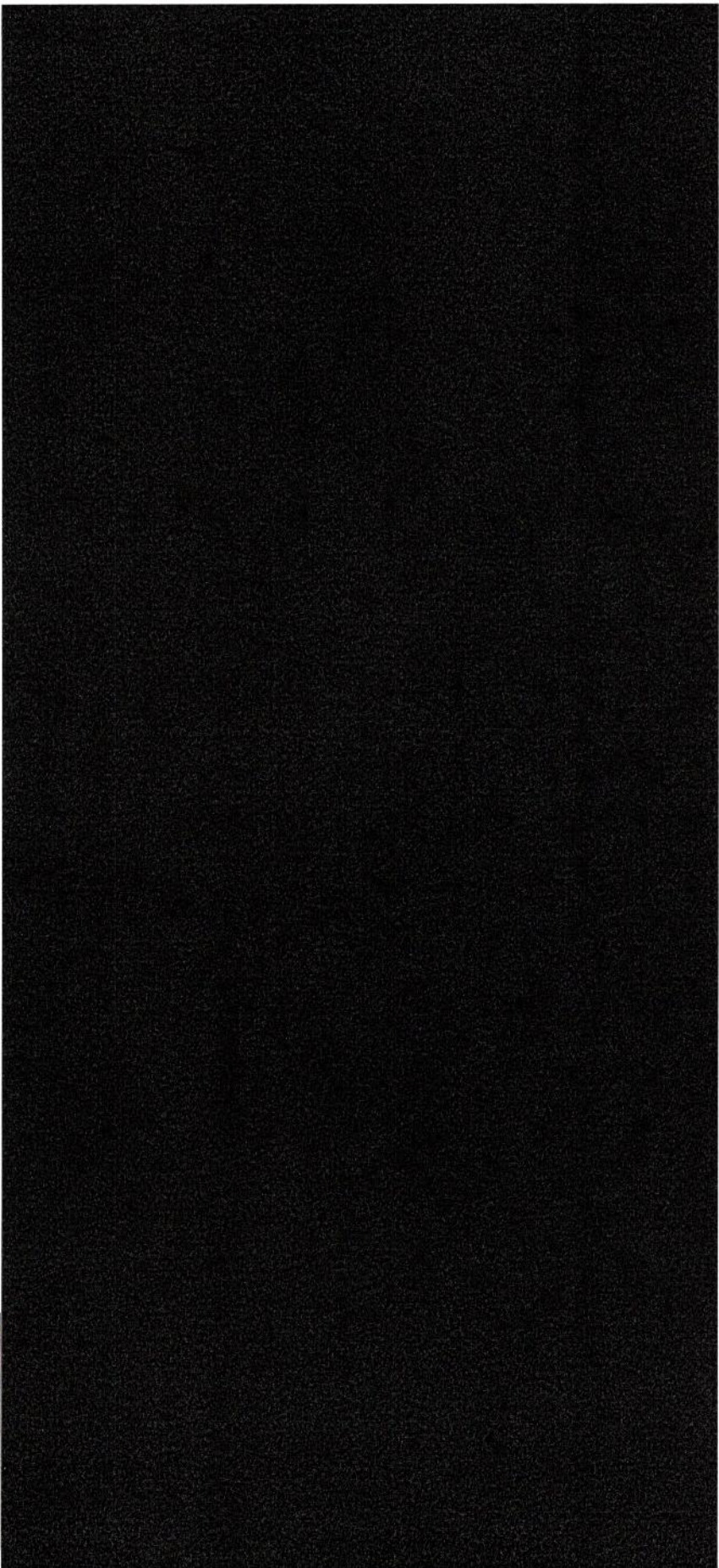
- **Volatility Shape Adjustment**

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.

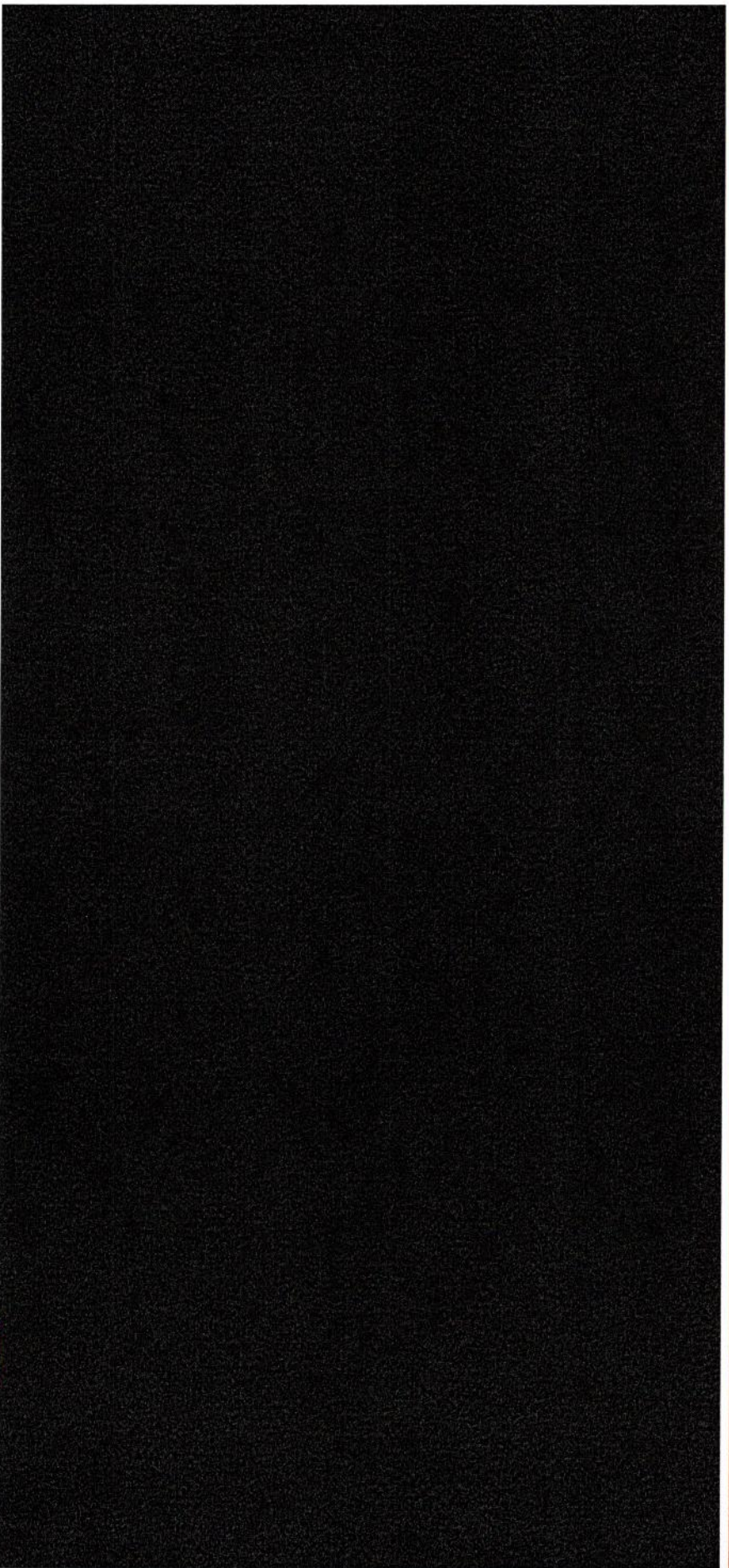
# SLEMCO Energy Forecast



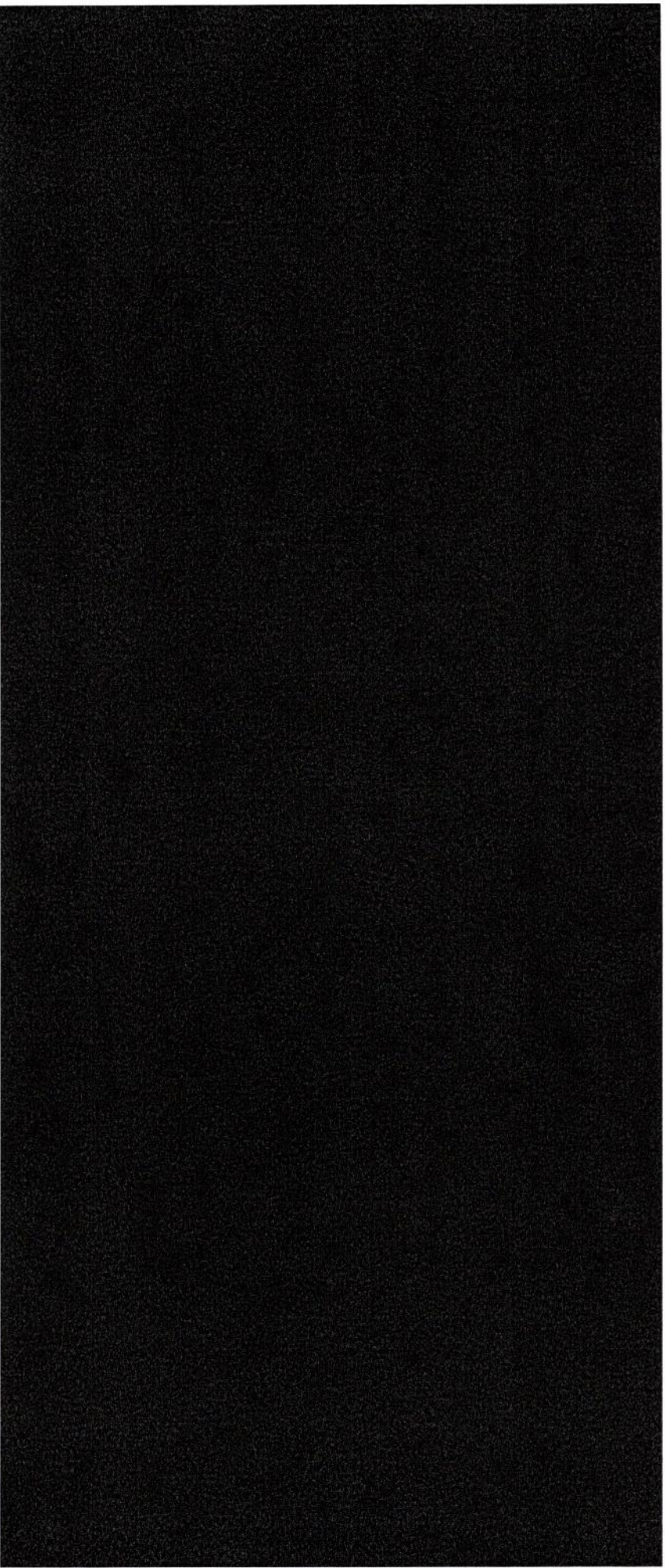
# SLEMCO Seasonal Peak Load Forecast



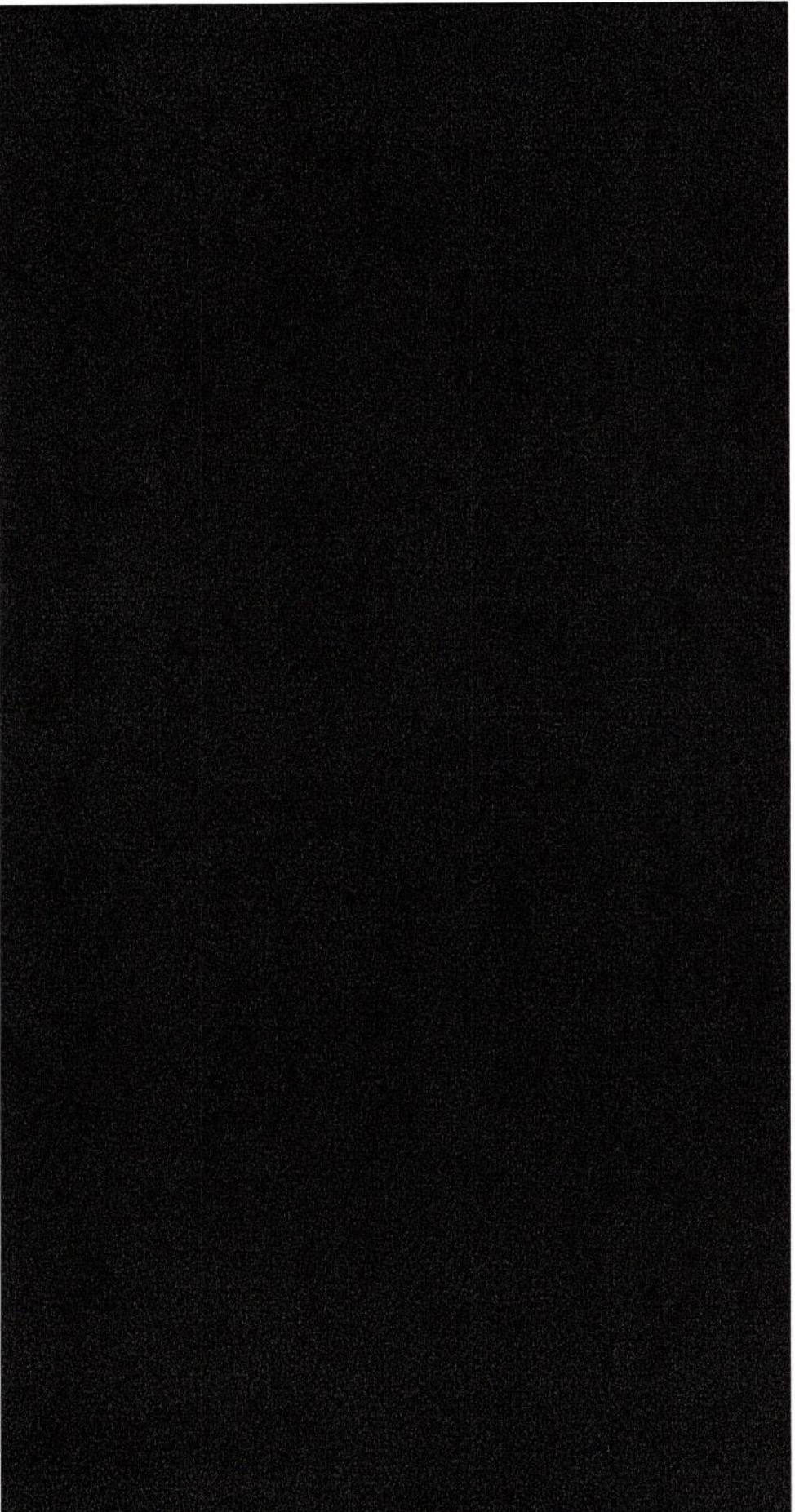
# SLEMCO Seasonal Peak Load Forecast



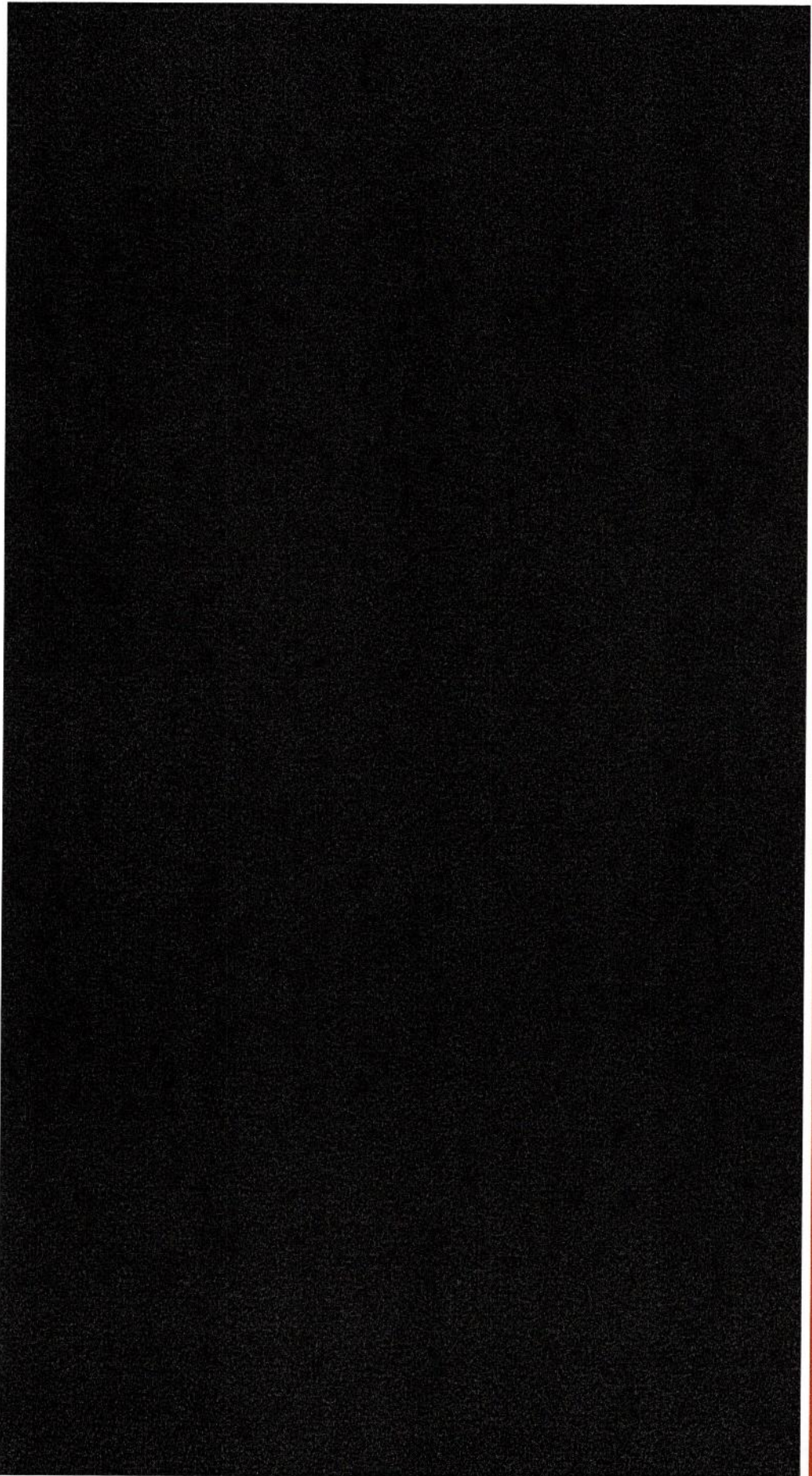
## SLEMCO: Going-In Capacity Position (Winter)



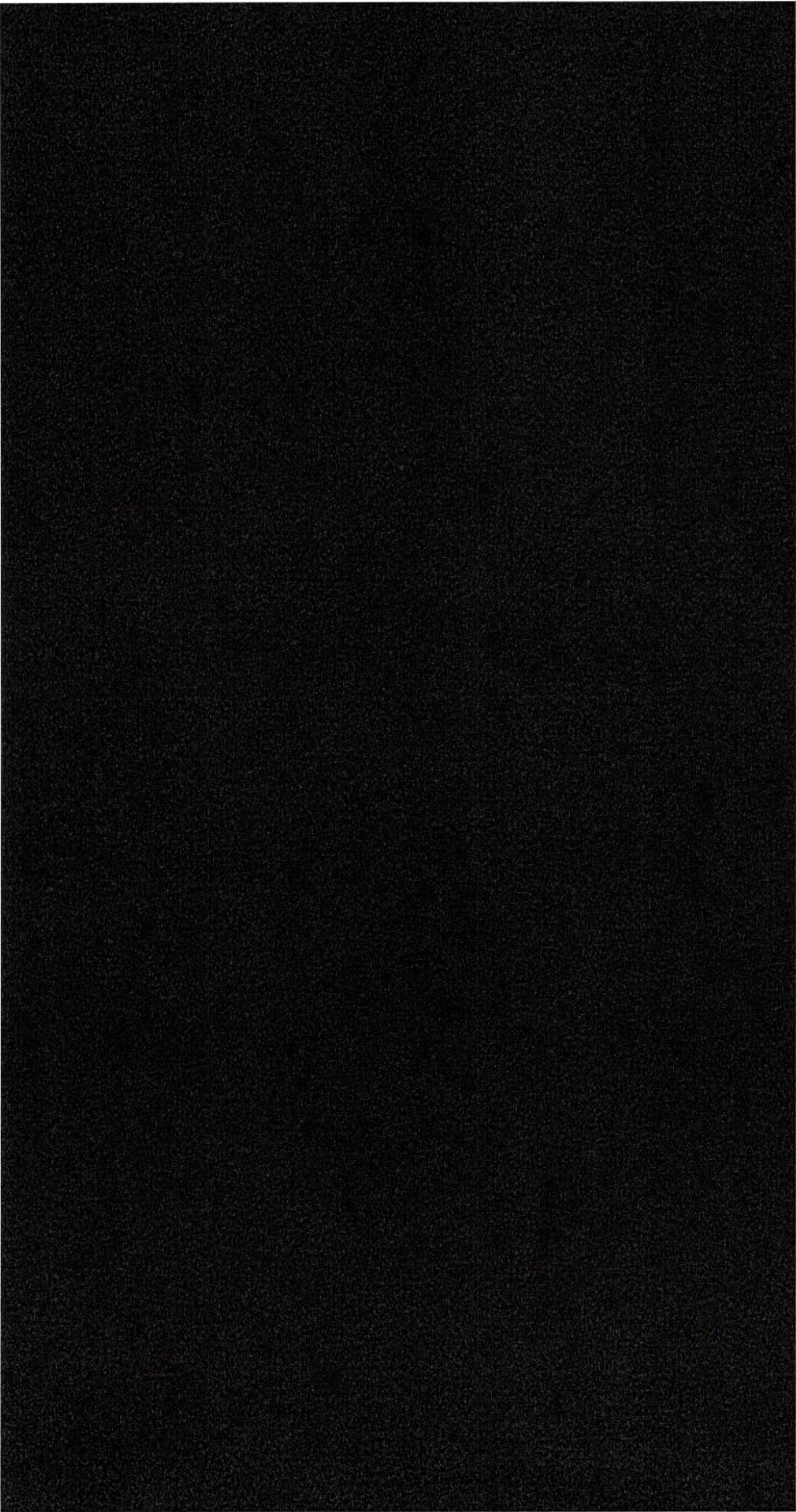
## SLEMCO: Going-In Capacity Position (Summer)



## **SLEMCO: Going-In Capacity Position (Spring)**



## **SLEMCO: Going-In Capacity Position (Fall)**





# 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.

## Capacity Expansion

Long Term Plan

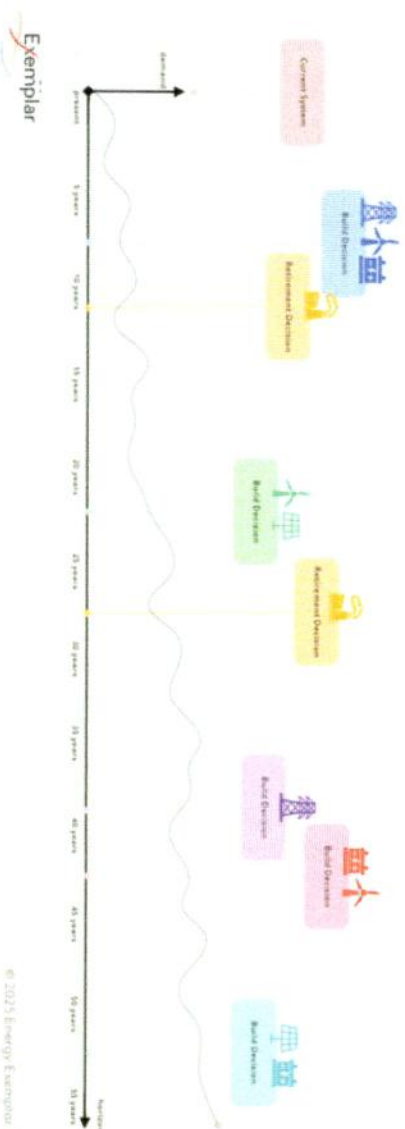
What technologies to build?

Where to build?

When to build?

When to Retire?

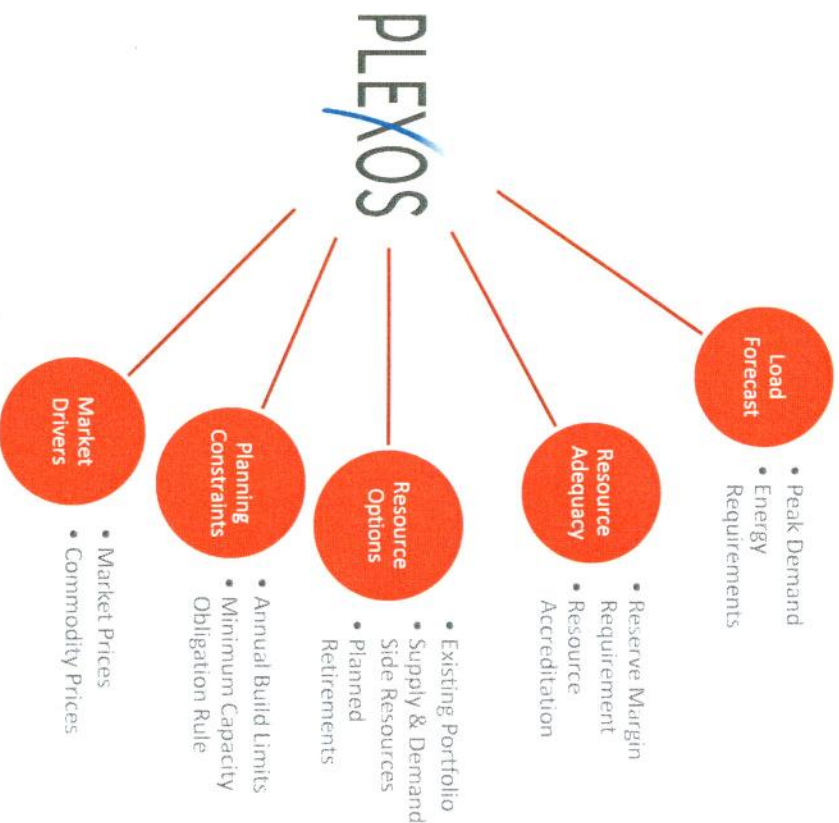
How much capacity to build?



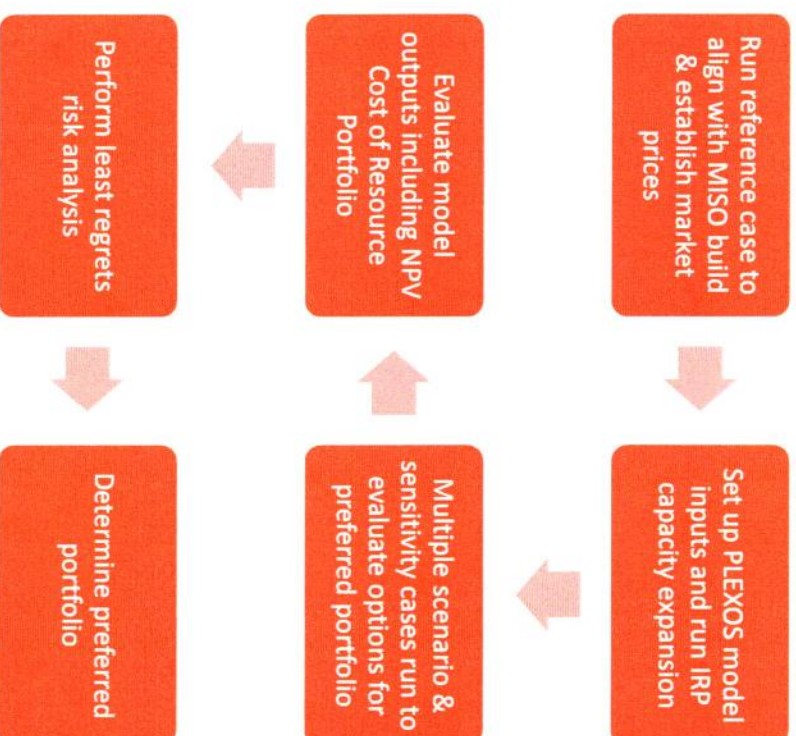
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# IRP Modeling Methodology

## Establish Inputs and Planning Assumptions



## Key Modeling Steps



## 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.<sup>1</sup> 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%2004%20Resource%20Adequacy685483.pdf>.

# Supply-side Resource Options Reviewed

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

## Thermal

- Natural Gas Combined Cycle
- Natural Gas Combustion Turbine
- Natural Gas RICE
- Biomass

## Renewables/Storage

- Utility-scale solar
- Wind
- Battery Storage (Up to 12-hr Duration)
- Hybrid solar + storage
- Geothermal
- Hydro

## Emerging Technologies

- 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.<sup>2</sup>
  - 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		Capital		Capital		Capital	
			Construction Cost \$/kW, '26	Construction Cost \$/kW, '31	Construction Cost \$/kW, '36	Construction Cost \$/kW, '41	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			
	Solar	100	\$ 1,433	\$ 1,264	\$ 1,087	\$ 1,118	\$ 1,135			
Intermittent	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			

<sup>2</sup> MISO Series 2 Futures Redesign Assumptions Book, December 19, 2025.  
<https://cdn.misoenergy.org/futures%20redesign%20assumptions%20book%20-%20updated%20dec%202025/32902.pdf>

## OBBA Tax Credit Assumptions

Tax credits reflect MISO's assumptions as of December 2025, which incorporate One Big Beautiful Bill Act ("OBBA") provisions.<sup>3,4</sup>

- **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.

<sup>3</sup> MISO Series 2 Futures Redesign Assumptions Book, December 19, 2025. <https://cdn.misoenergy.org/futures%20redesign%20assumptions%20book%20-%20updated%20Dec%202025%20902.pdf>

<sup>4</sup> MISO Futures Redesign Project Status & Schedule, August 29, 2025.

<https://cdn.misoenergy.org/20250829%20Workshop%20Intro%20-%20Overview/15610.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.<sup>5</sup>
- Storage DLOL-based accreditation amounts and years are taken from MISO's Series 2 Futures Redesign Assumptions Workbook (December 2025).<sup>6</sup>

<sup>5</sup> MISO Series 2 Futures Stakeholder Workshop, *Resource Adequacy Review, Capacity Expansion, Siting*, February 26, 2026, [https://cdn.misoenergy.org/F20260226\\_Workshops201.cfm%20Resource%20Adequacy\\_Update%2020260225\\_742968.pdf](https://cdn.misoenergy.org/F20260226_Workshops201.cfm%20Resource%20Adequacy_Update%2020260225_742968.pdf).

<sup>6</sup> 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%
Wind	2045	5%	3%	1%	3%
	2030	10%	10%	11%	14%
Storage	2035	9%	10%	12%	11%
	2045	6%	8%	10%	7%
Gas	2030	97%	100%	84%	99%
	2033	97%	98%	77%	86%
Oil	2043	83%	77%	30%	75%
	2030	81%	76%	77%	67%
Hydro	2035	82%	76%	79%	76%
	2045	85%	77%	82%	76%
Nuclear	2030	82%	74%	77%	73%
	2035	84%	77%	82%	78%
Coal	2045	92%	86%	84%	83%
	2030	89%	80%	83%	82%
Combined Cycle	2035	89%	83%	86%	80%
	2045	86%	85%	88%	84%
Nuclear	2030	90%	85%	83%	76%
	2035	89%	86%	85%	80%
Coal	2045	91%	81%	89%	76%
	2030	80%	75%	78%	65%
Combined Cycle	2035	81%	76%	78%	69%
	2045	82%	72%	82%	71%
Nuclear	2030	86%	74%	84%	73%
	2035	82%	76%	87%	74%
Coal	2045	84%	77%	88%	72%
	2030	82%	76%	87%	74%

## 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

## 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* parameters<sup>7</sup>
- **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%201%20series%20%20%20introduction%20681092.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

- First public stakeholder meeting will be held May 14, 2026. SLEMCO will provide meeting details for interested stakeholders in advance of that date.
- 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.