BEFORE THE
LOUISIANA PUBLIC SERVICE COMMISSION

DIXIE ELECTRIC MEMBERSHIP CORPORATION, AMITE SOLAR, LLC, AND AMITE ENERGY STORAGE, LLC, EX PARTE	DOCKET NO. U-_____

In re: Joint Application for Certification and Approval of Battery Energy Storage Agreement and Related Amendment No. 3 to Amite Solar Power Purchase Agreement and Request for Expedited Review.

JOINT APPLICATION FOR CERTIFICATION AND APPROVAL OF BATTERY ENERGY STORAGE AGREEMENT AND RELATED AMENDMENT NO. 3 TO AMITE SOLAR POWER PURCHASE AGREEMENT AND REQUEST FOR EXPEDITED REVIEW

EXHIBIT "F"
Pre-Filed Direct Testimony of Mr. Ronnie J. Donaldson
(Rule 12.1 Confidential/HSPM Version Removed From Public Version)

DIRECT TESTIMONY

of

TRAVIS J. STEWART

on behalf of

DIXIE ELECTRIC MEMBERSHIP CORPORATION

LPSC DOCKET NO. U-______

November 2025

-PUBLIC VERSION-

I. INTRODUCTION

Q: PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A: My name is Travis J. Stewart. My business address is 1010 S. Federal Hwy, Suite 1400, Hallandale Beach, Florida, 33009.

Q: BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A: I am employed by Gabel Associates, Inc. ("Gabel") where I am a Vice President of Wholesale Power and Market Services. I first joined Gabel in 2015 as a Senior Associate, was promoted to Director in 2019, and again promoted to Vice President in 2023. I manage the firm's portfolio for the Midcontinent Independent System Operator ("MISO"), Southwest Power Pool ("SPP"), and Western Energy Coordinating Council ("WECC") regions. In this role, I continue to advise clients on state and federal energy matters, support mergers and acquisitions, perform diligence on wholesale power market transactions, and monitor policy and regulatory reforms taking place at RTO/ISO forums and the Federal Energy Regulatory Commission ("FERC"). In addition to these responsibilities, I sit as the Chair of the MISO Alternative Dispute Resolution Committee, the Chair of the MISO Independent Power Producers/Exempt Wholesale Generators Sector, and am a member of the MISO Advisory Committee.

I regularly engage MISO staff, regulators, and industry stakeholders on capacity market design issues, the Planning Resource Auction ("PRA"), and capacity accreditation issues. I support my clients' activities involving the MISO capacity market, including the development of bidding strategies, administrative preparation for the PRA, understanding the obligations associated with capacity commitments, how physical and economic withholding provisions interact with the PRA, and how to interpret the PRA results. In addition, I facilitate Gabel's ongoing evaluation of the MISO capacity accreditation construct, including the FERC-approved and soon-to-be implemented Direct Loss of Load accreditation methodology.

Q: PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL EXPERIENCE.

A: I graduated from Rutgers University, *cum laude*, with a bachelor's degree in economics and earned a *juris doctorate* from the Rutgers School of Law – Camden. Prior to joining Gabel I held positions within the Counsel's Office of the New Jersey Board of Public Utilities and as a graduate fellow at the Rutgers School of Law.

Q: ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A: Dixie Electric Membership Corporation ("DEMCO").

Q: HAS THIS DIRECT TESTIMONY BEEN PREPARED BY YOU OR UNDER YOUR DIRECT SUPERVISION?

A: Yes.

Q: HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE LOUISIANA PUBLIC SERVICE COMMISSION ("LPSC") OR ANY OTHER COMMISSION?

A: Yes, in Docket Nos. U-36133, U-36135, U-36514, and U-36515, and U-36516.

Q: HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY OTHER REGULATORY BODY REGARDING THE SUBJECT OF THIS DIRECT TESTIMONY?

A: Yes, I provided Direct Testimony on MISO's Direct Loss of Load filing before the Federal Energy Regulatory Commission – Docket No. ER24-1628.

Q: PLEASE DESCRIBE YOUR DIRECT TESTIMONY IN THIS DOCKET.

A: My direct testimony identifies the need for DEMCO to contract for the output from the Amite Battery Energy Storage System ("BESS")[1] facility – a 100 megawatt ("MW"), 4-hr durational unit – to increase needed capacity reserves, improve operating reliability, and provide economic energy and ancillary services. The Amite BESS facility will utilize Amite Solar's existing interconnection rights, connect to the MISO system through Surplus Interconnection, and utilize the interconnection rights assigned to it via the Surplus Interconnection process to deliver needed capacity to DEMCO's load and Southeast Louisiana as a whole. Over the last two years, MISO has introduced two capacity market design reforms as part of its ongoing Reliability Imperative.[2] In 2024, the FERC approved

[1] The proposed facility is referred to as Amite BESS throughout this testimony.
[2] *See generally,* MISO Reliability Imperative, available at https://www.misoenergy.org/meet-miso/MISO_Strategy/reliability-imperative/ (a long-term corporate strategic initiative that aims to install incremental policy change that improves reliability, market design, and operations as the overall resource fleet and industry evolves through the energy transition and load growth phase).

separate proposals from MISO to reform capacity accreditation and demand modeling in the PRA. The accreditation reforms are generally referred to as Direct Loss of Load ("DLOL") and the demand curve is titled the Reliability Based Demand Curve ("RBDC"), which meaningfully change capacity market risk for DEMCO.

The capacity market and these reforms are the first issues addressed in this testimony. I walk through the DLOL construct, the capacity accreditation process, and the current state of the MISO capacity market. I then turn to describe the analysis performed to demonstrate the economics and need for the Amite BESS facility. This includes an economic evaluation, revenue forecast, and a DLOL accreditation forecast. I then address the connection process for Surplus Interconnection resources and how Amite BESS will be able to connect to MISO in an expedited manner and provide enhanced capacity value to the Amite Solar facility. Lastly, I address the need for incremental resources in the Amite South Load Pocket.

II. RESOURCE ADEQUACY IN MISO

Q: CAN YOU PLEASE DESCRIBE THE MISO RESOURCE ADEQUACY CONSTRUCT?

A: The foundation of MISO's Resource Adequacy Construct is the Planning Resource Auction ("PRA"). The PRA is described as an auction process that "demonstrates sufficient resources and allows market participants to sell capacity, via an auction, to other market participants who may expect a shortfall. MISO sets the capacity requirements in its region for each season of the June 1 to May 31 time period."[3] The PRA functions as a voluntary annual capacity auction with seasonal reliability targets that provides a way for Market Participants to satisfy resource adequacy requirements. The seasonal and locational design elements encourage market participants to make economically efficient decisions with regards to capacity investment, which can take the shape of self-supply, bilateral purchase, market purchase, or new resource development. The PRA matches these seasonal capacity resources with load on a local/zonal, subregional, and regional basis.

The seasons defined in the PRA are Summer, Fall, Winter, and Spring. Summer contains the months of June, July, and August. Fall contains the months of September, October, and November. Winter contains the months of December, January, and February. And, Spring contains the months of March, April, and May.

MISO has 10 Local Resource Zones ("LRZ" or "Zone"). Regionally, Zones 8, 9, and 10 make up the MISO South subregion, with Louisiana nested within Zone 9. The PRA establishes the availability of seasonal capacity for the upcoming Planning Year as well as an Auction Clearing Price for capacity in each MISO Zone in each season.

For the Seasonal PRA, capacity supply offers are submitted by Capacity Resources, which cân be generally categorized as physical generation, energy storage, and demand-side resources. In today's market, each of these are physical capacity assets that are assigned Seasonal Accredited Capacity ("SAC") value, which represents the expected availability

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[3] MISO Resource Adequacy

of a Capacity Resource to provide energy and ancillary services. The SAC from thermal generation and demand response resources is established by MISO Tariff Schedule 53 and converted to Zonal Resource Credits ("ZRC") on a one-to-one basis. In other words, 1 unit of SAC equals 1 ZRC. MISO ensures the ZRCs are fully deliverable to load by confirming those ZRCs are coupled with either (i) Network Resource Interconnection Service (NRIS) or (ii) Energy Resource Interconnection Service (ERIS) that is paired with firm point-to-point transmission.

ZRCs are the capacity product produced by capacity resources and procured by LSEs. All ZRCs are derived from capacity resources that are tracked through MISO's Module E Capacity Tracking Tool. Once a ZRC is created, a supplier can offer it into the PRA, commit it via a contractual agreement, or self-schedule that ZRC to serve related load.

Q: PLEASE DESCRIBE RECENTLY ADOPTED PRA MARKET DESIGN CHANGES THAT IMPACT AN LSE'S ABILITY TO SATISFY RELIABILITY REQUIREMENTS ASSIGNED BY MISO?[4]

A: Over the last five (5) years, MISO has modified most of the significant elements of the Resource Adequacy Construct. MISO has installed a seasonal capacity market, tied thermal

[4] Throughout 2025, MISO has submitted numerous proposals to FERC that adjust how Demand Response and Behind the Meter Generation can participate in the PRA, require performance demonstration, limit use of inflexible resources, and adjust accreditation processes for those demand-side resources. While some demand-side assets will be impacted by those reforms, others will remain and new resources will participate under that same resource designation. For the purposes of this testimony, I do not evaluate the impact of those policies as some remain under review by FERC and the impact on the asset class varies so significantly across resources.

capacity accreditation to resource availability, and increased performance standards for all resource types.

In 2024, the FERC accepted two proposals advanced by MISO to adjust supply and demand in the PRA to improve market efficiency and price signals. The goal of these reforms was to ensure the reliability value of incremental resources was reflected in accrediting capacity supply and in the shape of the demand curves.

In one filing, MISO advanced capacity accreditation and initial demand volume. This filing was referred to as the Direct Loss of Load ("DLOL"). DLOL will be implemented in the 2028/2029 Planning Year. In the second filing, MISO proposed changing the demand curve used to reflect procurement targets in the PRA from a vertical curve to a sloped curve. This sloped demand curve is called the Marginal Reliability Impact curve, which better represents LSE demand for incremental capacity supply beyond the initial reliability target. The intent is for the market to secure additional capacity at an efficient price.

Q: PLEASE DESCRIBE THE RELEVANT CAPACITY ACCREDITATION AND RESERVE MARGIN REFORM.

A: The DLOL reforms install a uniform capacity accreditation methodology for all Resource Classes. DLOL also changed the demand target for load customers by shifting the amount of capacity necessary to meet reliability from a value based on coincident peak load to one that focuses on load volume during the riskiest operating hours. These changes were implemented via edits to Tariff Module E-1 and by creating a new Tariff Schedule – Schedule 53A.

The DLOL model accredits resources using the following equation:

$$SAC_i = Resource\ Class\text{-}Level\ UCAP * \frac{Resource\ ISAC_i}{Resource\ Class\text{-}level\ ISAC}$$

1 unit of SAC is equal to 1 ZRC. As such, the more SAC assigned to a resource, the greater that resource's capacity value. Under this DLOL model, MISO calculates three elements: (i) Resource Class-Level Unforced Capacity ("UCAP"), Resource Intermediate Seasonal Accredited Capacity ("ISAC"), and Resource Class-Level ISAC.

Resource Class-Level UCAP is the result of MISO's DLOL analysis. This DLOL analysis evaluates the average amount of MWs provided by each Resource Class during the simulated Critical Hours in each season. MISO relies on the SERVM model[5] to conduct a Monte Carlo[6] simulation that utilizes 30 years of correlated load and weather data along with five adjusted load forecasts.[7] Next, a capacity adjustment is performed to establish a

[5] Power Gem, Resource Adequacy Planning, available at https://power-gem.co/software/servm-resource-adequacy-planning ("SERVM helps system planners evaluate resource adequacy, integrate renewables, and produce an economically optimal expansion plan that addresses all reliability and environmental requirements.").
[6] A technical process that uses repeated, randomized numbers to assess various outcomes where there are numerous uncertain variables.
[7] MISO accounts for Load Forecasting Error and assigns probability weighting to each scenario.

1 day in 10 years annualized Loss of Load Expectation ("LOLE") standard. This LOLE standard is distributed across the seasons with summer meeting a 0.1 LOLE and the other seasons having a minimum of 0.01 LOLE. Then for each hour where supply exceeds demand - accounting for imports - by a margin of 3% or less, MISO identifies that hour as a Critical Hour.[8] For the Critical Hours, MISO determines the weighted average of the amount of generation modeled across those hours. MISO then evaluates how much generation was contributed by each Resource Class and establishes the Resource Class-Level UCAP.

MISO then turns to the ISAC value. The ISAC value is calculated for each resource in the Resource Class. It's a Tiered, Weighted approach to assessing capacity value that focuses on resource availability during periods of operational need. If MISO is experiencing a Max Gen event or low supply margins in real time, MISO will tag that hour as a Resource Adequacy hour or "RA hour." An individual resource's seasonal average availability during RA hours is weighted 80%, while availability during all other hours is weighted 20%. While the Resource Class UCAP is derived from a modeling exercise, the ISAC values are based on actual resource availability and performance.

The DLOL process functions as a seasonal market share assignment for the Resource Classes. The better the modeled performance, the greater the capacity market share is

[8] MISO caps the number of hour evaluates a 1,950 and first uses Loss of Load Hours and then looks to low-margin hours.

provided to the Resource Class. Then the individual resources compete amongst themselves within the Class for larger portions of the assigned Resource Class market share. This competition between resources in the Class is represented through the Resource ISAC to Resource Class-Level ISAC.[9]

Q: HOW DOES MISO DEFINE THE RESOURCE CLASSES IN DLOL?

A: MISO establishes Resource Classes by using a combination of fuel source, technology, and operating characteristics. Today, MISO has thirteen (13) Resource Classes: biomass, coal, dual fuel oil/gas, gas, combined cycle, nuclear, oil, pumped storage, reservoir hydro, run-of-river hydro, solar, wind, and storage.

Q: HOW DOES MISO TREAT HYBRID RESOURCES OR CO-LOCATED GENERATION ASSETS FOR THE PURPOSES OF CAPACITY ACCREDITATION?

A: Today, MISO uses a "sum of all parts" approach for hybrid and co-located generation assets. This approach assigns capacity credit to the individual facilities, then allocates interconnection service to limit capacity rights to the combined injection limits at the Point of Interconnection ("POI"). One challenge with this approach is that aggregate contributions at the POI from the hybrid/co-located resources are limited by deliverability amounts and fail to consider how increased availability from the combined assets improves reliability.

[9] This is the sum of all the ISAC values within the Resource Class.

To address this inefficiency, MISO introduced a "Co-Located Accreditation Proposal" that intends to value co-located and hybrid resources in the aggregate.[10] Rather than viewing the resources as separate, MISO is proposing to use aggregate offers or aggregate real-time availability to MISO as the basis for determining the ISAC value of the overall hybrid facility. But rather than creating a new "Hybrid" Resource Class, MISO will allow for the asset owner to apportion the capacity value between the assets behind the same POI. MISO is aiming to finalize this proposal and have it installed for the 2028/2029 Planning Year, when DLOL is implemented.

Q: PLEASE EXPLAIN HOW THE DLOL CONSTRUCT IMPACTS THE PLANNING RESREVE MARGIN REQUIREMENT?

A: In its structure, the Planning Reserve Margin Requirement ("PRMR") calculation will remain the same. The PRMR will equal the LOLE model's sum of accredited capacity, plus demand-side resources and firm external resources. However, the accredited capacity values will be derived from the DLOL analysis that identifies the weighted average modeled seasonal supply value. Since the model focuses on hours of probabilistic risk as opposed to coincident peak load hours, the overall volume of capacity will decrease under DLOL. The nature of DLOL and how PRMR values are generally reduced by securing load

[10] MISO Resource Adequacy Subcommittee, Co-Located Resource Accreditation (August 2025), available at https://cdn.misoenergy.org/20250820%20RASC%20Item%2009%20Co-Located%20Resource%20Accreditation%20(RASC-2019-2)713764.pdf.

volume reflective of the need during risky periods versus peak periods was illustrated by MISO in its Resource Accreditation whitepaper.

PY 23/24 - PRMR Resource Class	Summer	
	Current	Proposed
Gas	30,251	29,541
Combined Cycle	27,558	27,326
Coal	40,545	39,955
Hydro (includes diversity contracts)	2,120	2,122
Nuclear	11,410	10,850
Pumped Storage	2,530	2,523
Storage	28	28
Solar	2,151	1,700
Wind	4,639	2,731
Run-of-River	966	966
BTMG	4,196	4,196
Demand Response	7,397	7,397
Firm External Support	1,707	1,707
Adj. (1d in 10yr)	(4,000)	(4,000)
PRMR	131,498	127,042

Figure 1: MISO DLOL Impact to PRMR[11]

In this graphic, MISO compares the PRMR for the 23/24 Planning Year in the Summer season under the current peak load model to the then-proposed DLOL methodology. The DLOL methodology is a marginal-themed analysis that will identify the volume of load needed to be served during risky operating periods, and add on the Planning Reserve Margin percentage and transmission losses to establish the PRMR.

While demand is reduced under the DLOL construct, so is supply. The construct ties the amount of load and modeled generation in the SERVM analysis back to the amount of load MISO will direct utilities to procure. Relatedly, the DLOL process and SERVM analysis

[11] MISO, Resource Accreditation White Paper at 21 (March 2024), available at https://cdn.misoenergy.org/Resource%20Accreditation%20White%20Paper%20Version%202.1630728.pdf?_t_id=Z_C3HZ_eyPNx_J_tBna2lA%3d%3d&_t_uuid=1GenF6o0T4mqBx7AhE0bIQ&_t_q=resource+accreditation+whitepaper&_t_tags=language%3aen%2csiteid%3a11c11b3a-39b8-4096-a233-c7daca09d9bf%2candquerymatch&_t_hit.id=Optics_Models_Find_RemoteHostedContentItem/630728&_t_hit.pos=14.

identifies the size of the supply-side market, which is driven by the weighted average load volume during the Critical Hours. So, while demand is decreased, so is supply, which increases the value of ZRCs.

Q: PLEASE DESCRIBE MISO'S SLOPED DEMAND CURVE POLICY.

A: MISO's sloped demand curve, or MRI curve, integrated price elasticity into the PRA. Historically, MISO relied on a "vertical" demand curve or a fixed point of demand, which created a "boom or bust" pricing environment. More significantly, the vertical demand curve created inefficient pricing by assigning very high prices in the event of small shortages and near-zero prices if there was slight excess in the market. MISO's goal with the MRI curve was to establish more stable pricing that better communicated the need for investment retention, entry, or exit. With FERC's approval of MISO's MRI curve proposal in 2024, MISO began utilizing it in the 2025/26 Planning Resource Auction.

As a result of clearing offered supply against a sloped demand curve, LSEs are exposed to some volume risk in the capacity market, meaning that an LSE faces some uncertainty in the quantity of capacity it will be required to procure. This uncertainty is because the shape of the supply curve will dictate point of intersection with the demand curve. Stated differently, more supply means LSEs will likely be required to procure more ZRCs but at a lower price. Less supply means higher prices. This dynamic was highlighted in the Planning Resource Auction results for the 2025/26 Planning Year.

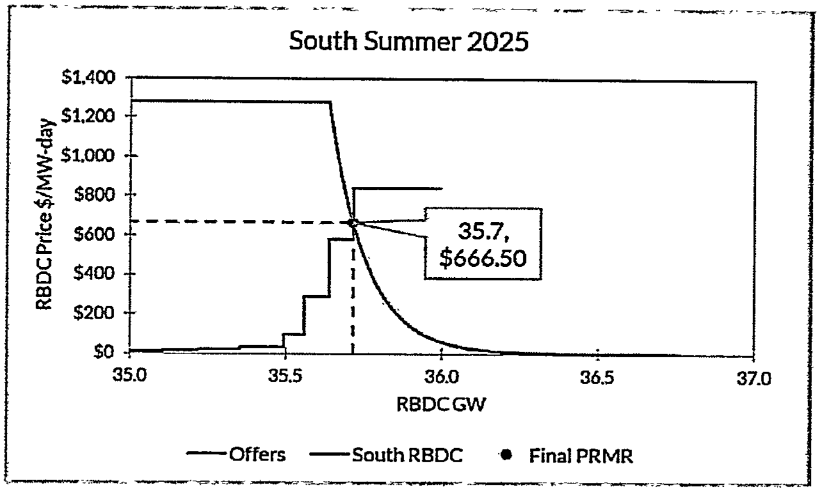

Figure 2: MISO PRA Supply/Demand Curves for Summer 2025

[12]

As demonstrated in the graphic above, the sloped demand curve has the effect of clearing more capacity at efficient prices. The incremental capacity provides a cost-effective reliability benefit, which is communicated through the slope of the curve. Generally, the more slope embedded in the MRI curve, the greater reliability benefit provided by an incremental unit of capacity. To develop the shape of the curve, MISO establishes a price cap at Gross Cost of New Entry ("CONE"), a price floor of zero, and an equilibrium of the Net CONE. Gross CONE is the amount of revenue a new reference resource would need to earn to have an incentive to enter the market. Net CONE is simply Gross CONE reduced by expected revenues from the energy and ancillary services markets. Overall, the design of the curve is intended to ensure market participants are receiving accurate market signals.

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[12] MISO Planning Resource Auction, Results for Planning Year 2025-26 at 4 (April 2025), available at https://cdn.misoenergy.org/2025%20PRA%20Results%20Posting%2020250529_Corrections694160.pdf.

As prices start to rise, market entry or investment retention should be incentivized. As prices fall for a persistent period of time, market exit could be signaled.

Q: WITH MISO'S SLOPED DEMAND CURVE/MRI CURVE, HOW IS SHORTAGE PRICING ADDRESSED?

A: Shortage pricing under the MRI construct has two elements. First, if the entire MISO region or a sub-region like MISO South or MISO North/Central does not have enough seasonal capacity supply to satisfy the initial PRMR requirement, then prices for that season will be set at the price cap – Gross CONE. As illustrated in Figure 2, this Gross CONE value can approach $1,300/MW-day.

Second, locational shortages can trigger a "LCR price adder."[13] The LCR price adder functions to "add" the shortage period price to the Auction Clearing Price for the relevant LRZ.

For local shortage and pricing, MISO evaluates zonal resource adequacy by assessing whether or not a zone has enough capacity to meet the LCR. The LCR is the amount of capacity each Zone must possess internally to meet the 1-in-10 Loss of Load Expectation

[13] MISO Tariff Module E-1 69A.7.1(c)(x)("The LCR price adder will be set as the amount obtained by dividing the applicable LRZ's annual CONE value by the summation of the number of days in Seasons in each Season of the Planning Year in which the LRZ was in ZRC Shortage Conditions in the Planning Resource Auction and the number of days in each Season of the Planning Year in which the LRZ was in ZRC Near-Shortage Conditions in the Planning Resource Auction.").

standard while accounting for imports and controllable exports. Stated differently, the LCR is the volume of physical capacity that must be internal to each LRZ to satisfy the reliability requirements. This is distinguishable from the PRMR assigned to LSEs, which represents the amount of capacity necessary to maintain reliability while having the benefit of regionally deliverable capacity. In the event an LRZ is short of its LCR, MISO will assign shortage pricing to that zone. Shortage pricing is set by taking the LRZ's Gross CONE value and dividing it by the number of days in the Planning Year in which shortage conditions occurred.

In tying the local shortage pricing to the regional Auction Clearing Price, the final price paid by LSEs for price-exposed capacity is the Auction Clearing Price set by the PRA plus the LCR price adder. This places significant price risk on LSEs in LRZs that face LCR shortage risk, like LRZ 9. The LCR price adder, is, however, capped at the seasonal price cap of local CONE in shortage or near-shortage conditions.

For example, the 2025/26 PRA produced a Summer-season clearing price of $666.50/MW-day for the entire MISO region. The Winter-season clearing price for the whole region was $33.20/MW-day. Let's assume LRZ 9 incurred an LCR shortfall in the summer and winter seasons. There are 92 days in the MISO summer season and 90 days in the MISO winter season. Gross CONE LRZ 9 in the 2025/26 PRA was $117,710/MW-year. This leaves the LCR price adder equal to $117,710/182 days, or $646.76. This would push the Summer-season price to the seasonal cap of $1,279.46/MW-day. The Winter-season price would increase to $679.96/MW-day. This shortage price risk is significant and is not simply theoretical for DEMCO as it represents an ongoing potential financial exposure arising from conditions in LRZ 9 (some of which the Commission has highlighted in its discussions at its recent October Business & Executive Session). And, the Amite BESS facility will assist DEMCO in maintaining reliability and avoiding exposure to uniquely high Auction Clearing Prices that could emerge as the supply/demand mix quickly evolves in an LRZ with shrinking local capacity reserves.

Q: HOW DO YOU VIEW SUPPLY AND DEMAND DYNAMICS IMPACTING MARKET PARTICIPANTS NOW THAT THE MISO CAPACITY MARKET HAS BEEN REDESIGNED?

A: Supply has been tightening relative to demand in MISO for more than a decade, and the tightening in LRZ 9 shows why incremental, fast-responding capacity inside Amite South is no longer merely beneficial but necessary to avoid repeated exposure to shortage pricing and load shed risk . Over the last five (5) years, the marketplace has been impacted by aging infrastructure, high levels of thermal generation retirements, slower-than-expected new entry, and capacity accreditation rules that tie performance to capacity value. In looking at the impact to MISO South, much of the previously available excess has also eroded.

MISO South (ZRC)					Zone 9
Planning Year	PRMR	MISO South Supply	Excess Reserve Margin	YOY	PRA ACP
2020-21	34,729.2	37,674.4	2,945.2	-	$ 6.88
2021-22	33,943.4	39,013.7	5,070.3	2,125.1	$ 0.01
2022-23	34,079.6	38,440.8	4,361.2	-709.1	$ 2.88
2023-24	33,778.4	37,037.4	3,259.0	-1,102.2	$ 24.47
2024-25	35355.8	37949.5	2,593.7	-665.3	$ 19.96
2025-26	35713.7	37,559.2	1,845.5	-748.2	$ 210.92

Figure 3: MISO South Summer Capacity Balance[14]

In the table above, I walk through each planning year, identify the aggregate PRMR for MISO South, and offered capacity supply, and identify the excess reserve margin. In each year since 2022, capacity margins have declined. And in each year since 2022, there have been significant market changes coupled with increases in the annualized price of capacity. In 2022/23, the market was continually impacted by accelerated thermal resource retirements and demand-side accreditation reform while also seeing increased load. In 2023/24, MISO integrated availability and performance-based accreditation for thermal resources and a seasonal market. In that year, MISO applied a 60% weight to performance during constrained operational hours, and a 40% weight to all other hours. This shifted in 2024/25 to a 70% and 30% weighting assignment. And again it shifted in 2025/26 to a 80%/20% weighting assignment. Over this time period, load also began to increase. In 2025/26, MISO also introduced its sloped demand curve. In my view, the sloped demand curve functioned as it was intended; to allow prices to reflect the need for investment.

[14] Data sourced from MISO's PRA Results, detailed data postings, and reports.

Prices rose in 2025/26 because the MISO summer season cleared every offered ZRC, except one offer block in MISO South. The system is in a near-shortage condition today and prices are reflecting that risk.

In MISO South since 2021/22, load increased by nearly 2 GWs and generation decreased by approximately 1.5 GWs. In each year since 2021/22, there was a net reduction to the MISO South capacity margin. Relatedly, price oscillated a bit but steadily increased over that same time period.

MISO's capacity market is signaling a need for new entry to maintain reliability.

Q: HOW HAVE THESE CHANGING MARKETS IMPACTED YOUR VIEW OF SHORTAGE PRICING RISK IN ZONE 9?

A: LRZ 9 is facing material shortage risk due to (1) thermal generation exiting the region, (2) aging infrastructure pushing additional retirements of generation and transmission, (3) new entry remaining stalled, and (4) high amounts of expected load growth in MISO over the next decade. As I noted above, if LRZ 9 was short of its LCR requirement in the 2025/26 PRA, the auction clearing price would have been $1,945/MW-day. Reliability risks and exposure to high shortage pricing is increasing in LRZ 9. Below I walk through how the amount of locational excess to protect against LCR shortages has eroded in a short period of time.

LRZ 9 (ZRC)				
Planning Year	LCR	LRZ 9 Supply	Excess Local Capacity Margin	YOY
2020-21	19,500	21,800.7	2,300.7	-
2021-22	20,498.6	22,842.7	2,344.1	43.4
2022-23	20,157.30	22,412.6	2,255.3	-88.8
2023-24	18,931.40	21,198.7	2,267.3	12.0
2024-25	18,380	21,542.3	3,162.3	895.0
2025-26	19,615.00	20,498.6	883.6	-2,278.7

Figure 4: LRZ 9 Summer Season LCR Balance

Similar to the dynamics in MISO South, excess local supply has quickly shifted from a period of excess to potential shortage. Since MISO continues to evaluate LCR as a fixed local reliability requirement, it is not impacted by the installation of the sloped demand curve. However, local retirements and some accreditation loss has resulted in meaningfully fewer available local ZRCs. LRZ 9 is now maintaining a local excess reserve margin of 4.5%. This places LSEs at a material risk of experiencing capacity shortage pricing without new resources entering the footprint.

To exacerbate this concern over the availability of local capacity resources, load is growing at historic levels. Louisiana and LRZ 9 are among the areas in MISO expected to connect the highest concentrations of new demand.

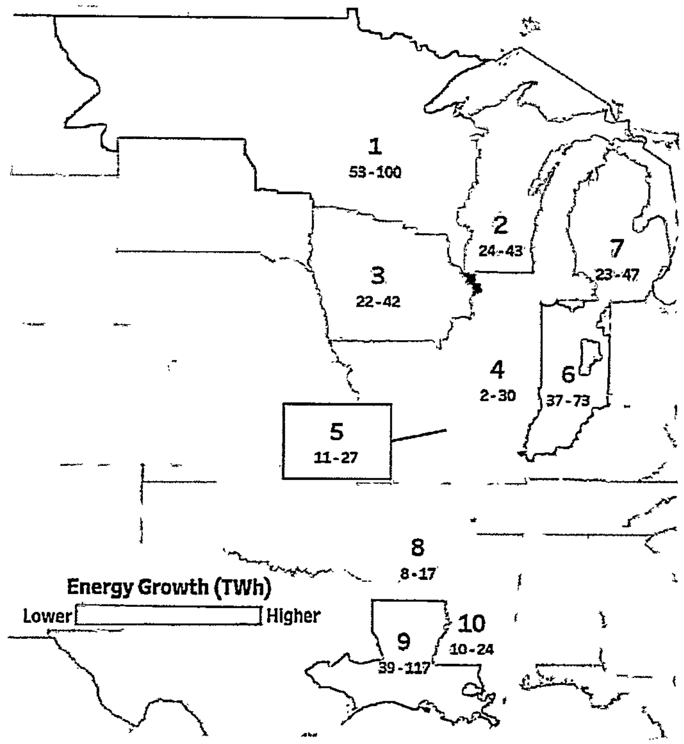

Figure 5: 2024-2044 Expected Load Growth[15]

With the tightening of local capacity supply, the high volume of expected load growth, and severely high shortage pricing, the Amite BESS facility is necessary to protect DEMCO from the suite of reliability and price risks facing the market. Overall capacity prices are signaling for new investment in resources, and sub-regional and local dynamics highlight an elevated need for these new resources to firm up capacity delivery.

III. ECONOMICS, REVENUE, AND CAPACITY ACCREDITATION FORECASTING

[15] MISO Long Term Load Forecast Whitepaper at 12 (December 2024), available at https://cdn.misoenergy.org/MISO%20Long-Term%20Load%20Forecast%20Whitepaper_December%202024667166.pdf.

Q: PLEASE DESCRIBE GABEL'S ECONOMIC EVALUATION OF THE AMITE BESS FACILITY?

A: While the Amite BESS facility is needed for capacity reliability, it is economic. The 100 MW 4-hr BESS facility [redacted].

The evaluation assessed the Amite BESS facility in EnCompass. EnCompass is a widely used power market simulation tool. The approach combined long-term system planning with detailed hourly operations modeling to forecast market prices from 2026 to 2045. Two cases were studied. First, a Base Case with three scenarios utilizing expected fuel prices.

- Scenario 1A: optimize dispatch to maximize total revenues in the energy market
- Scenario 2A: co-optimize dispatch between energy and frequency regulation markets
- Scenario 3A: co-optimize dispatch between energy, frequency regulation, and spinning reserve markets

Second, a change case that evaluated those same three scenarios but with lower fuel prices. This change case resulted in lower expected overall revenues, closer to $220 million.

- Scenario 1B: optimize dispatch to maximize total revenues in the energy market
- Scenario 2B: co-optimize dispatch between energy and frequency regulation markets
- Scenario 3B: co-optimize dispatch between energy, frequency regulation, and spinning reserve markets

Energy Price Forecasting

The energy price forecast was developed using a two-phase modeling approach. In Phase 1, EnCompass simulates long-term capacity expansion across power markets, Identifying the most cost-effective mix of generation and storage resources needed to meet future electricity demand. The model incorporates factors such as projected load growth (based on NERC and ISO data), natural gas price forecasts (blending NYMEX futures and EIA projections), technology cost assumptions, expiring federal tax credits (ITC/PTC by 2028), generator retirement trends, and regional transmission constraints. The result is a forward-looking system resource mix that meets reliability and policy goals at the lowest cost.

In Phase 2, the model performs an hourly dispatch simulation using the Phase 1 resource mix. It models power system operations, factoring in hourly demand and renewable output, generator technical constraints, fuel prices, and transmission limitations. EnCompass uses security-constrained unit commitment and economic dispatch algorithms to determine daily and hourly generation schedules, producing hourly locational marginal prices (LMPs) that are then averaged into monthly forecasts by region.

Ancillary Services Price Forecasting

EnCompass was also used to forecast hourly regulation and spinning reserve market-clearing prices (MCP) for MISO Local Resource Zone 9 (Louisiana) using a linear regression of historical hourly real-time LMPs and ancillary service MCPs.

[redacted]

[redacted] This policy shift altered the supply-demand balance for regulation services, making older data less representative of current market dynamics. The model uses this recent data to estimate how variations in LMPs correspond to changes in regulation MCPs, allowing us to produce forward-looking hourly MCP forecasts consistent with the current market structure.

AMITE BESS Optimization

To estimate the future revenues the Amite BESS facility, located in MISO Zone 9 (Louisiana), [redacted].

[redacted]

IV. CAPACITY ACCREDITATION MODELING

Q: WHAT IS THE EXPECTED CAPACITY VALUE OF THE AMITE BESS FACILITY UNDER THE MISO DLOL CONSTRUCT?

A: The Amite BESS facility is expected to provide a high-end capacity value of 91%, which will likely be maintained through the early 2030's. In the out-years where resource expansion is more uncertain, a moderate outlook places the Amite BESS' capacity value may trend closer to 65% as the resource mix evolves and the Critical Hours flagged in the DLOL shift away from periods when modeled BESS availability is high. The expected accreditation value is particularly important for DEMCO because LRZ 9's declining local reserve margin means that each incremental MW of accredited, in-pocket capacity has outsized reliability value. In effect, Amite BESS provides enhanced reliability attributes; the exact type of highly deliverable, local capacity that the Commission has highlighted as essential for the Amite South region. Furthermore, I agree with expert and consultant to the LPSC Lane Sisung ("Mr. Sisung") that there is a disconnect between a MISO-wide reserve margin and reserves dedicated to serving load within constrained load pockets.[16] While there are no current requirements for reserves to be located within load pockets like Amite South, I agree with Mr. Sisung that certification requests should consider how the addition of new resources protect the load pocket.[17] The DEMCO Amite BESS facility will provide additional generation and reserves to the Amite South load pocket, protecting it from future load shed events tied to generator outages.

Q: PLEASE EXPLAIN HOW YOU ARRIVED AT AMITE BESS'S CAPACITY VALUE?

A: I oversaw Gabel's internal development of the DLOL results, adopting the same process utilized by MISO to establish capacity values under its new construct. As a firm, Gabel maintains its status as a licensed SERVM model user. Our DLOL analysis and steps mimic those employed by MISO by utilizing SERVM's capability to evaluate probabilistic outcomes resulting from a Monte Carlo analysis. We utilized the same 30 years of correlated load and weather data, generator availability data, and accounted for Load Forecasting Error. Then we conducted a capacity refinement analysis to establish the reliability requirements/LOLE for each season, distributing 0.1 for the summer and 0.01 for the fall, winter, and spring seasons. Moreover, we established an expected resource mix that identified the amount of installed capacity from each Resource Class we expected to

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[16] TRANSCRIPT OF THE LOUISIANA PUBLIC SERVICE COMMISSION BUSINESS AND EXECUTIVE OPEN SESSION HELD ON OCTOBER 23, 2025 IN NEW ORLEANS, LOUISIANA. PRESENT WERE: CHAIRMAN MIKE FRANCIS, VICE CHAIRMAN ERIC SKRMETTA, COMMISSIONER DAVANTE LEWIS, COMMISSIONER JEAN-PAUL COUSSAN, AND COMMISSIONER FOSTER CAMPBELL ("October B&E Transcript"), Lane Sisung at 37, lns 14 – 23.
[17] *Id.*

participate in the market for each 5-year tranche in the 25-year study period. Lastly, an "energy equity" dispatch modifier was added to ensure that battery storage facilities were evaluated for availability outside of the daily peak period.

After the assumptions were set, the Monte Carlo results were evaluated such that each Critical Hour – Loss of Load event or low supply margin – was identified. The amount of generation from each Critical Hour event in each season was then assessed to identify how much generation was available from each Resource Class. Upon extracting that data, a script was run to identify the seasonal averages for Resource Class contributions. These seasonal average Resource Class contributions were then divided by the total amount of assumed installed capacity from the class to arrive at a DLOL percentage. This percentage represents the capacity accreditation a unit of average performance in each Resource Class would reasonably be expected to receive.

For a BESS facility, the results of our DLOL analysis show varying seasonal capacity values with a dependence on penetration volumes of wind and solar facilities throughout the footprint.

[redacted]

Figure 6: Gabel Summary BESS DLOL Results

[redacted] However, the penetration of wind and solar increases to the point where the Critical Hours begin occurring more frequently during periods of BESS unavailability, which begins the decline in BESS capacity values in the out-years.

[redacted] Although I expect all resources, including BESS and gas to see some reduction in DLOL values over time, I also expect the actual reductions to be less severe than our modeling outcomes over the long run. By 2051, MISO will be working with a nearly entirely refreshed weather, load, and generator performance data set. Generators will have more experience participating under the DLOL model and will likely change operating and offer behavior to optimize capacity values. This leads me to expect that DLOL values in the out-years will be more stable and see less accreditation attrition as BESS operators gain more experience with the construct.

Q: WHY DOES GABEL'S DLOL RESULTS DIFFER FROM THOSE POSTED BY MISO?

A: While the exact results differ, Gabel's analysis is generally in line with MISO's. One area where Gabel's assumptions are different is in resource penetration and expansion. These values are critical to the identification of the Critical Hours as resource mix changes dispatch, which changes the availability of generation to serve load. Gabel conducted DLOL analysis under numerous resource mix scenarios. Two of those scenarios formulated my view that a moderate annualized capacity value for a storage facility would fall in the 65% range.

In one scenario, Gabel utilized the generation mix assumptions included in MISO's Futures 2A.[18] The Futures 2A was a resource mix and siting exercise conducted by MISO as part of its Long-Range Transmission Plan. The generation mix embedded in that analysis provided a view based on member utility goals and publicly available generation interconnection data. In this scenario, Gabel assumed that MISO would see materially high

[18] *See generally,* MISO Futures Series 2, available at https://cdn.misoenergy.org/20250228%20Futures%20Redesign%20Workshop%20Item%2001%20Series%202%20Futures%20Introduction681092.pdf.

wind, solar, and storage penetration with accelerated retirements of coal and thermal facilities. During this study period, the federal government's energy policy shifted in a material manner and MISO member utility goals adjusted in similar ways.

To bring our DLOL analysis consistent with a moderate capacity expansion case, accounting for the impact of the change in federal policy, Gabel's second key scenario reduced the amount of solar, wind, and storage installation. We accelerated gas penetration in the late 2020s, integrated new nuclear in the mid-2030s, and slowed other thermal retirements. The results of that moderated capacity expansion case through 2030/31 are below.

[redacted]

Figure 7: Gabel BESS DLOL with Moderated Capacity Expansion

In comparison, MISO's refined DLOL analysis using the "even loss" BESS dispatch methodology indicates higher DLOL values in 2030/31.

Resource class	Even loss			
	Summer	Fall	Winter	Spring
Biomass	63%	52%	55%	53%
Coal	89%	84%	76%	76%
Combined Cycle	95%	91%	77%	78%
Dual Fuel Oil/Gas	87%	83%	79%	75%
Gas	88%	85%	66%	68%
Nuclear	94%	90%	87%	81%
Oil	77%	74%	73%	65%
Pumped Storage	98%	89%	78%	64%
Reservoir Hydro	86%	78%	74%	72%
Run-of-River Hydro	62%	52%	58%	63%
Solar	10%	4%	2%	5%
Wind	9%	14%	23%	15%
Storage	91%	99%	93%	99%

Figure 8: MISO Even Loss DLOL Results[19]

For storage, the DLOL values produced by MISO are higher. The differences between MISO's results and Gabel's results are primarily driven by differing views in the potential resource mix over the next six years. It's also important to note that the SERVM tool is highly sensitive to even small changes in assumptions, including those around load growth. Significantly, both MISO's analysis and Gabel's analysis identify storage assets as maintaining higher, stable, capacity values as the resource fleet evolves. Like all other technologies, the evolution of the resource fleet and operating behavior will drive year-over-year accreditation changes.

As a member of the storage DLOL Resource Class, the Amite BESS facility is expected to maintain a higher capacity factor throughout its asset life. While the Gabel view is more conservative, I believe it is reasonable to expect the realized seasonal DLOL capacity value

[19] MISO Resource Adequacy Subcommittee, LOLE Modeling Enhancements: Storage Modeling at 20 (April 2025), available at https://cdn.misoenergy.org/20250409%20RASC%20Item%2008%20LOLE%20Modeling%20Enhancements%20Storage%20Modeling689245.pdf.

to fall somewhere in between Gabel's and MISO's views. This will provide much needed capacity to an LRZ and load pocket in need of incremental dispatchable resources.

V. ENHANCED NEED FOR RESOURCES IN THE AMITE SOUTH LOAD POCKET

Q: PLEASE EXPLAIN HOW THE AMITE BESS FACILITY CAN ASSIST WITH MANAGING RELIABILITY IN THE AMITE SOUTH LOAD POCKET.

A: The Amite South Load Pocket is an import constraint area in southern Louisiana generally considered to expand from Baton Rouge, east to the Mississippi border, and along the Gulf Coast. Since the last century, this load pocket has required the acute focus of utilities and regulators to ensure the reliable delivery of power. It has limited generation import ability and faces challenges maintaining voltage stability.[20] Even in 2025, these operational difficulties resulted in a disruptive and potentially dangerous load shed event over the Memorial Day holiday,[21] a conclusion confirmed by Commission Staff, who testified at the October 2025 Business & Executive Session that this event was driven by limited import capability, coincident outages, and the absence of adequate fast-starting generation inside the load pocket.[22] The Amite BESS facility addresses these concerns. By adding

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[20] *See generally*, MISO MTEP24 Voltage Stability Analysis Results (July 2024), available at https://cdn.misoenergy.org/Public%20Statement%20-%20Southeast%20Louisiana%20May%2025,%202025%20Load%20Shed%20Event701585.pdf. *See also*, MISO MTEP 25 Voltage Stability Analysis Scope (March 2025), available at https://cdn.misoenergy.org/20250306%20PSC%20Item%2004b%20MTEP25%20Voltage%20Stability%20Analysis%20Scope682752.pdf.

[21] MISO, Southeast Louisiana Load Shed Event (May 2025), available at https://cdn.misoenergy.org/Public%20Statement%20-%20Southeast%20Louisiana%20May%2025,%202025%20Load%20Shed%20Event701585.pdf.

[22] *See generally*, October B&E Transcript.

needed flexible generation to serve DEMCO's load within the load pocket, MISO will have an additional resource to assist in managing the transmission and supply issues. Morevo

The Amite BESS facility can help resolve both issues impacting the Amite South Load Pocket. First, the load pocket is import limited, which places higher reliability value on generation internal to the load pocket. The Amite BESS unit's incremental generation capability will be able to inject power when needed, reducing transmission system strain to facilitate more imports. Similarly, the Amite BESS unit will improve voltage and frequency quality in the pocket because it will be able to rapidly charge or discharge when grid conditions indicate a need for those responses. This is one of the reasons why ancillary service revenue potential is high and supports the Amite BESS facility's economics. I agree with LPSC Staff consultant Mr. Sisung that needed generation must balance power delivery and economics.[23]

VI. SURPLUS INTERCONNECTION

Q: EARLIER IN YOUR TESTIMONY, YOU MENTION THE AMITE BESS FACILITY WILL INTERCONNECT USING SURPLUS INTERCONNECTION. CAN YOU DESCRIBE SURPLUS INTERCONNECTION SERVICE AND THE PROCESS TO OBTAIN IT?

A: Surplus Interconnection Service is "Interconnection Service that is derived from the unneeded portion of Interconnection Service established in a GIA … such that if Surplus

[23] October B&E Transcript at 53, lns 12-16.

Interconnection Service is utilized the total amount of Interconnection Service at the Point of Interconnection would remain the same."[24] The interconnection rights of the existing resource at the Point of Interconnection can be assigned to the Surplus facility, but the Surplus facility's interconnection is dependent upon the existing resource's GIA.

The process to obtain Surplus Interconnection Service ("Surplus") is straightforward and not encumbered with the challenges of the interconnection queue. A Surplus request can be submitted to MISO at any time via the online tool, and must be accompanied by a $60,000 deposit.[25] The Surplus Study consists of reactive power, short circuit/fault duty, and stability screenings. MISO reserves a limited right to perform a steady state analysis, but that is not applicable to the Amite BESS facility because MISO will be able to verify the amount of interconnection requested by the Amite Solar facility. The Surplus study will use the latest interconnection study models and include related Network Upgrades. If the Surplus unit is identified as not causing a material adverse impact on the Transmission System, MISO will permit the Surplus unit to obtain Surplus Interconnection Service. Surplus does come with some restrictions. First, aggregate output of the existing generator and the Surplus unit is capped at the Point of Interconnection limits. Second, the Surplus unit can only operate for one year after the existing resource is retired. The second issue

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[24] MISO Tariff Module A:

[25] The Planning Advisory Committee is evaluating a suite of adjustments to Surplus requests, which includes increasing the deposit amount to $150,000. But, it is not expected that MISO will submit this proposal to FERC until Q1 2026. MISO Planning Advisory Committee, Surplus Interconnection Attachment X and BPM 15 Updates (October 2025), available at https://cdn.misoenergy.org/20251008%20PAC%20Item%2004b%20Surplus%20Interconnection%20Attachment%20X%20and%20BPM%20015%20Updates%20(PAC-2025-3)721323.pdf.

can be addressed if the Surplus unit seeks generator replacement before the existing resource is retired.

Without consideration to the various labor, volume, and resourcing issues that impact transmission studies, a Surplus Generation Interconnection Agreement ("GIA") can be tendered to an interconnection customer within 9 months of application submission.

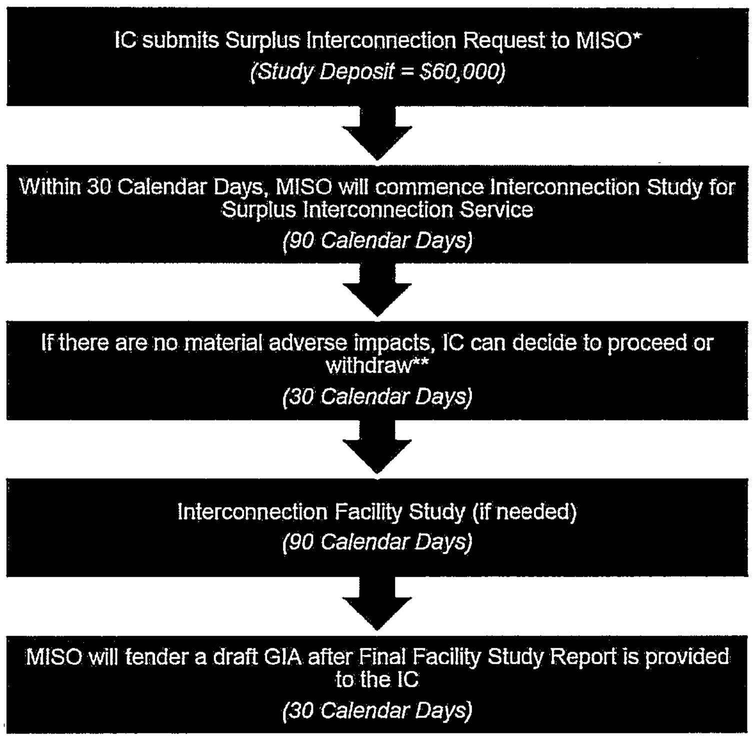

Figure 9: Surplus Interconnection Process Flow Diagram[26]

In accounting for the practical elements of conducting a transmission study, a Surplus applicant can reasonably expect to receive a Surplus GIA within 13-15 months of application submission. I do not see the 4-to 6-month delays as presenting commercial

[26] MISO BPM 15, Section 6.7.3.

challenges or driving termination of Surplus requests. As such, I view the Amite BESS' quickest and most efficient pathway to market is via Surplus Interconnection Service.

Q: IF AMITE BESS WAS TO OBTAIN SURPLUS INTERCONNECTION SERVICE, HOW WOULD IT BE ACCREDITED CAPACITY?

A: Although MISO is still working to finalize the hybrid/co-located capacity accreditation proposal I discussed earlier in my testimony, I expect Amite BESS and Amite Solar to be accredited using aggregate availability reported at the POI. Using aggregate availability will increase the capacity value of both units without requiring that all deliverability rights be assigned to a single resource, limiting capacity value. The increase in capacity value will occur by utilizing the BESS facility to increase the minimum availability during periods of solar unavailability and increasing aggregate availability when solar is partially available. Overall, Surplus Interconnection Service and utilizing MISO's forthcoming aggregate deliverability accreditation methodology will increase the capacity value of the combined assets in a portion of the MISO footprint that is in need of incremental reliability and operational flexibility.

This aggregate accreditation approach provides DEMCO with the ability to receive capacity credit for aggregate availability of the Solar and BESS units, rather than forcing DEMCO to only rely on one technology for accreditation purposes. DEMCO will be able to rely on generation availability data from the Solar facility when production is high, and utilize the BESS availability when Solar production is low. This allows for DEMCO's capacity to be optimized and increased by evaluating the availability of both resources that will be connected behind the same point of interconnection.

Q: IN YOUR OPINION, SHOULD THE LPSC APPROVE DEMCO'S APPLICATION TO DEVELOP THE AMITE BESS FACILITY?

A: Yes. For all the reasons stated above, the application should be approved.

Q: DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A: Yes.

LOUISIANA PUBLIC SERVICE COMMISSION

DIXIE ELECTRIC MEMBERSHIP CORPORATION, AMITE SOLAR, LLC, AMITE ENERGY STORAGE, LLC EX PARTE — **DOCKET NO. U-**

In re: Joint Application for Certification and Approval of Battery Energy Storage Agreement and Related Amendment No. 3 to Amite Solar Power Purchase Agreement and Request for Expedited Review.

AFFIDAVIT OF WITNESS

Parish/County: Miami Dade

State: Florida

I, [NAME]., being duly sworn, depose

that the Direct Testimony in the

above referenced matter on behalf of

Dixie Electric Membership Corporation,

is true and correct to the best of my knowledge, information, and belief.

Travis Stewart

[NAME]

Subscribed and sworn before

me this 21st day of

November , 2025.

Notary Public State of Florida
Philip H. Pierrot
My Commission HH 483234
Expires 1/21/2028

My commission expires: