



Request for Proposals

Electrical Power Supply

Renewable and Other Alternative Resources

Release Date: September 14, 2021

Due Date: December 6, 2021

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Acronyms

Table 1 List of Acronyms

ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
BESS	Battery Energy Storage System
CCCT	Combined Cycle Combustion Turbine
CPT	Central Prevailing Time
EEOC	Equal Employment Opportunity Commission
GCOD	Guaranteed Commercial Operation Date
IBC	International Building Code
ICAP	Installed Capacity
IEEE	Institute of Electrical and Electronics Engineers
IRP	Integrated Resource Plan
ISA	International Society of Automation
kV	Kilovolt
LBA	Local Balancing Authority
MISO	Midcontinent Independent System Operator
MLGW	Memphis Light, Gas and Water Division
MW	Megawatts
MWh	Megawatts-Hours
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NESC	National Electrical Safety Code
NDA	Non-Disclosure Agreement
NITS	Network Integration Transmission Service
NRIS	Network Resource Interconnection Service
O&M	Operation and Maintenance
OSHA	Occupational Safety and Health Administration
POI	Point of Interconnection
PPA	Power Purchase Agreement
PSAT	Power Supply Advisory Team
PV	Solar Photovoltaic Technology
Q & A	Question and Answer
RFP	Request for Proposals
TA	Transmission Analysis
TVA	Tennessee Valley Authority

1 INTRODUCTION AND BACKGROUND

1.1. DESCRIPTION OF MLGW

Memphis Light, Gas and Water (MLGW) is the nation's largest three-service municipal utility, serving more than 436,000 customers. Since 1939, MLGW has met the utility needs of Memphis and Shelby County residents by delivering reliable and affordable electricity, natural gas, and water service. Its electrical demand (average load) in 2020 was 1,508 MW with a peak load of 3,043 MW.

MLGW is currently supplied with electricity by the Tennessee Valley Authority (TVA), a federal agency that sells electricity on a nonprofit basis. MLGW is TVA's largest customer, representing 11% of TVA's total load. As an alternative to the current contract, TVA has offered to MLGW (and all the Local Power Companies it serves) an option of extending the notice period to 20 years, in exchange for a 3.1% discount on the Standard Service non-fuel components of the wholesale rate. In addition, TVA is offering the flexibility to MLGW to provide up to 5% of its load with local generation solutions other than TVA. In addition to evaluating the two alternatives available from TVA, MLGW is evaluating the option of terminating its contractual relationship with TVA and developing its own resources and/or acquiring them from the neighboring Midcontinent Independent System Operator (MISO) market. The evaluation of these options is the central objective of its Integrated Resource Plan (IRP).

1.2. BACKGROUND

In April 2019, MLGW released a Request for Proposal (RFP) for an Integrated Resource Plan (IRP) to accurately determine the most viable options should the utility elect to procure electricity from sources other than TVA. MLGW extended invitations to qualified firms to assist in developing the IRP which incorporated a Transmission Analysis (TA) to evaluate the current MLGW-TVA "All-Requirements" Wholesale Power Agreement versus that of entering into the Wholesale Power Market to meet the future needs for reliable electric energy for MLGW customers at the least cost. Proposals were due on May 17, 2019. The IRP and the input from the community and advisory committee was to be considered when deciding options for other power sources. On July 22, 2019, MLGW announced that it had selected Siemens Industry Incorporated (Siemens) as its consultant for the development of MLGW's integrated resource plan. Following consultation with the MLGW

Power Supply Advisory Team (PSAT) and community stakeholders, Siemens released its final IRP report in July 2020¹. In its report, Siemens identified potentially significant savings for MLGW if it pursued a Purchased Power Agreement (PPA) for local generation resources in conjunction with transmission system improvements and the development of renewable resources.

On August 19, 2020, the MLGW staff presented its recommendation to continue investigating IRP Portfolios 6, 9, and 10. The basis for this recommendation is outlined in a presentation (MLGW Board IRP Presentation)². Portfolio 10 was later removed from consideration due to reliability concerns related to the 950 MW 2X1 Combined Cycle Gas Turbine (CCCT).

1.3. CLARIFICATIONS AND AMENDMENTS TO THIS RFP

MLGW may from time to time and before the Proposal Submission Deadline, post on its website, answers to questions, clarifications, and/or revisions to this RFP at the RFP portal, <https://contractsrfp.mlgw.org>. Please note, access to this website will require an executed NDA from the RFP Respondent. This portal will be opened for RFP Respondents after MLGW confirms the RFP Respondent has signed the NDA. The NDA form can be found in Attachment A of this RFP. RFP Respondents will need to send the completed NDA to the following email address powersupplyrfp@mlgw.org. Such answers, clarifications, and/or revisions are incorporated by reference into this RFP and shall supplement or amend this RFP according to their terms. Oral answers, clarifications, and/or revisions to this RFP, to the extent given, shall not be deemed supplements or amendments to this RFP.

1.4. PURPOSE OF THIS RFP

As noted on slide 4 of the MLGW Board IRP Presentation, the Board directed that a power supply Request for Proposals be issued to confirm the potential power supply savings identified in the IRP Final Report under various local generation options vs. continuing service with TVA (see Section 14 of the IRP report for Siemens' estimate of future TVA rates). While this RFP's primary focus is on the acquisition of resources identified in IRP Portfolios 6 and 9, MLGW is soliciting proposals for alternative power supply resources as described in Section 2. This RFP is seeking proposals provided by RFP Respondents in order to validate the Siemens' IRP assumptions. The resources will

¹ See IRP document: http://www.mlgw.com/images/content/files/pdf/MLGW-IRP-Final-Report_Siemens-PTI_R108-20.pdf

² See MLGW Board IRP Presentation: http://www.mlgw.com/images/content/files/pdf/IRP%20Board%20Presentation_081920.pdf

be obtained through PPAs with: (1) renewable generation owners and/or developers (both the local solar generation and the MISO renewable resources), (2) thermal generation owners and/or developers, and (3) qualified energy suppliers that provide energy-blocks, partial-requirements or full-requirements arrangements to MLGW. Siemens' assumptions to be validated include cost, reliability, sustainability, and installed capacity capability within the region.

In addition, this RFP will be used to identify qualified candidates for eventual PPA engagement in the event PPAs can be procured at an evaluated cost below that of the rates offered by TVA and at a comparable level of reliability. MLGW is not contemplating any self-build generation that would compete with any proposals received in this RFP.

1.5. RFP KEY DATES AND MEETINGS

Participation at the RFP Information Meeting is mandatory and requires timely submission to MLGW of the executed NDA in Attachment A. Subsequent Q & A will be conducted in writing. Please consult the portal at <https://contractsrfp.mlgw.org> for specific meeting time and webcast information, as dates are subject to change. Please register for the RFP Informational Meeting through the meeting notification posted at <https://contractsrfp.mlgw.org> in order to ensure there is sufficient meeting space to accommodate in-person participation.

Table 2 RFP Key Dates and Meetings

Event	Date
RFP posted for the Project	September 14, 2021
Mandatory RFP Informational Meeting Webcast and Conference Call (Meeting registration required)	October 7, 2021
Deadline for Respondent(s) to submit their first set of questions in writing	October 14, 2021
MLGW to post answers to questions from Informational Meeting	October 21, 2021
Deadline for Proposal Respondent(s) to submit their 2nd set of questions in writing	November 4, 2021
MLGW to post answers to 2nd set of questions	November 22, 2021
Proposal Submission Deadline	December 6, 2021
Deadline to Notify Respondent(s) of a Deficient Proposal (30 Calendar Days from Proposal Submission Deadline)	Last Day: January 5, 2022
Deadline for Respondent(s) to cure a Deficient Proposal (30 Calendar Days from Deficiency Notification)	Last Day: February 4, 2022
MLGW to announce short-list of Respondent(s)	May 10, 2022
Presentations by short-listed Respondent(s)	June 21, 2022
Best and Final Offer Deadline	July 19, 2022

1.6 CONFIDENTIAL AND/OR CRITICAL ENERGY INFRASTRUCTURE INFORMATION

Any necessary Confidential and/or Critical Energy Infrastructure Information will be provided to RFP Respondents subject to executing the NDA in Attachment A.

1.7 QUESTIONS AND COMMUNICATIONS

Any questions or inquiries related to this RFP, Project, or the submission of Proposals and their evaluation, shall be directed solely to MLGW's Contracts Management Team through the contact information provided below. MLGW staff should not be contacted directly. MLGW will publicly post a list of questions and/or requests for clarifications it receives at <https://contractsrfp.mlgw.org>.

MLGW Contracts Management Contact Information for this RFP:

E-mail Address: powersupplyrfp@mlgw.org

Subject Line: Contract #12321 POWER SUPPLY – RENEWABLE & OTHER OPTIONS

1.8 NO OBLIGATION TO CONTINUE PROJECT OR ACCEPT A PROPOSAL

This RFP does not constitute an offer of any kind, including an offer to enter into any contract, and is merely a request for the RFP Respondent to submit information. MLGW may decline to accept any or all Proposals. MLGW's issuance of this RFP does not constitute any commitment by MLGW to move forward with any proposed resource, and MLGW may cancel and withdraw this RFP at any time.

Award of any contract requires the approval of the MLGW Board of Commissioners and the Memphis City Council.

1.9 CONTRACT KEY TERMS

The winning RFP Respondent will be required to negotiate a PPA for the sale of power to MLGW. Such Agreement shall include industry standard PPA terms for the type of power being offered. Any PPA or contract will need to address any applicable key contract terms which shall include, but not be limited to, the following provisions:

Guaranteed Commercial Operation Date and Delay Damages – To the extent that the PPA contemplates the construction of new generating facilities, the PPA shall contain provisions establishing for each such facility a guaranteed commercial operation date (GCOD) and liquidated

damages for each day after the GCOD that Seller fails to achieve commercial operation. Such damages shall be based on a fixed dollar amount multiplied by the planned nameplate capacity of the generation source.

Performance Guarantees – The PPA shall contain provisions establishing liquidated damages pertaining to the criteria outlined in Section 2 below; performance incentives may also be considered. Buyer shall have the right to terminate the PPA in the event the Seller fails to meet contractual performance guarantees in two (2) consecutive contract years or in a cumulative total of three (3) contract years.

Environmental Attributes – In the event there are environmental attributes or certain benefits (including, but not limited to, renewable energy credits) (collectively, “Environmental Attributes”) produced as a result of the source facility’s operation, Buyer shall be entitled to all such Environmental Attributes; provided, however, ownership of tax benefits shall remain with Seller. In the event of a production shortfall, Seller shall be obligated to provide replacement Environmental Attributes in addition to shortfall liquidated damages and such replacements shall comply with any applicable renewable portfolio standards or other regulatory requirements applicable to MLGW at the time of the shortfall.

Insurance – Seller shall be required to procure insurance in the amounts specified by MLGW. MLGW shall be listed as an additional insured on all policies.

Seller Guaranty and Security – Seller shall provide a parent guarantee or Letter of Credit if requested by MLGW as a condition precedent to the effectiveness of the PPA.

Dispute Resolution – Disputes shall be resolved pursuant to the following process: first by meeting of senior personnel and finally by litigation in courts situated in Shelby County, TN.

Indemnity – The winning RFP Respondent shall indemnify and hold MLGW harmless from third party claims resulting from the winning RFP Respondent’s negligent action/inaction.

Confidentiality – Standard provisions requiring the non-disclosure of confidential information, except as may be required by law (including, but not limited to, the Tennessee Open Records Act).

Governing law – Tennessee.

2 PROJECT SUMMARY

This RFP is designed to evaluate and procure renewable and other alternative resources to reliably and economically serve MLGW's load requirements. While the primary focus is to solicit and procure renewable resources in alignment with IRP Portfolios 6 and 9, MLGW is soliciting other power supply alternatives, with accompanying firm transmission service arrangements, to ensure the final selection of the most economically feasible and reliable resource portfolio is obtained to serve MLGW on a long-term basis. As such, this section of the RFP describes the various products that MLGW is seeking, including: (1) up to 1,000 MW of local solar generation, (2) varying quantities of MISO South wind and solar resources, (3) MISO South non-renewable resources, (4) energy-only blocks, (5) partial-requirements arrangements, and (6) full-requirements arrangements. Each of these requested products and services is described in more detail in this section.

2.1 LOCAL SOLAR GENERATION

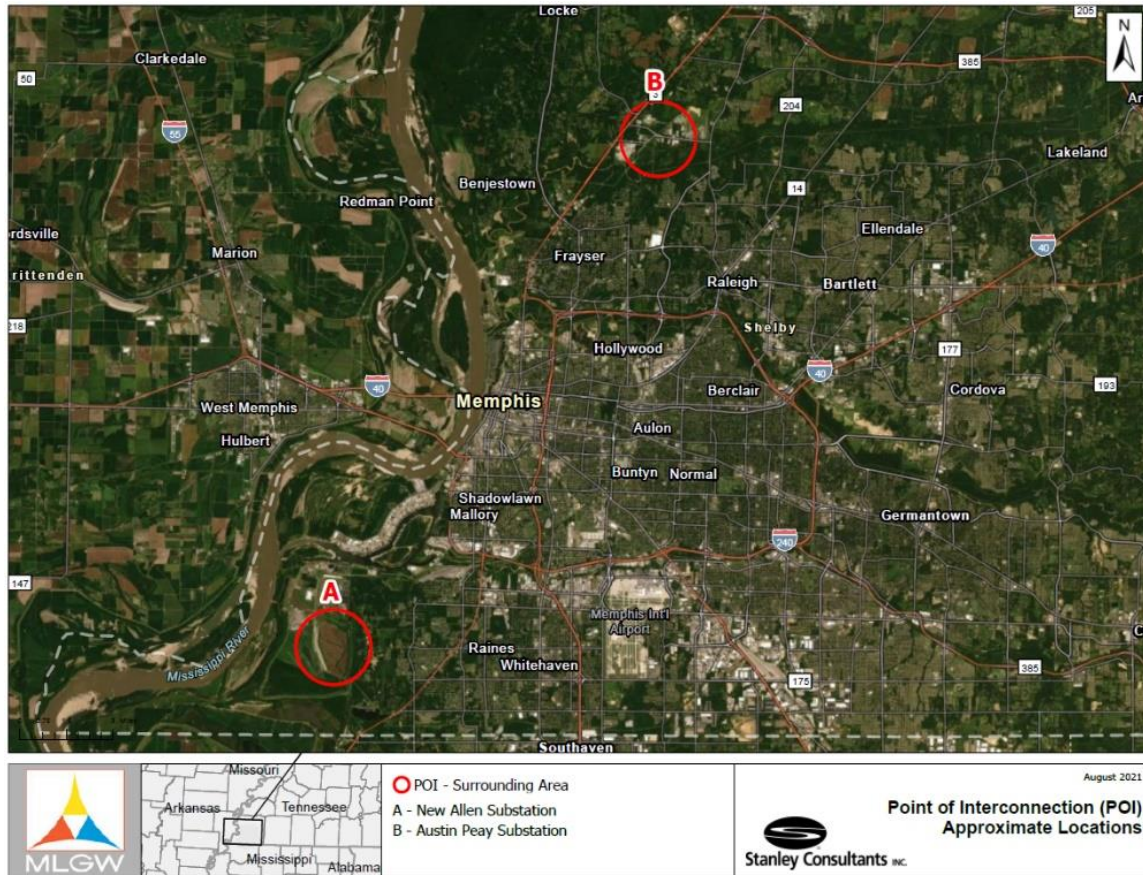
As generally described in the Siemens IRP, Portfolios 6 and 9 were comprised of 1,000 MW of local solar generation, in addition to other power supply resources. MLGW is seeking proposals for local solar generation in and around Shelby County that would be interconnected to MLGW's transmission system. This RFP solicits local solar generation proposals, as well as optional Battery Energy Storage Systems (BESS), that conform to the parameters as outlined in this section as well as the accompany RFP Bid Forms.

2.1.1 Point of Interconnection

MLGW recognizes that the local solar generation project sizes requested will not be accommodated by MLGW's existing 161 kV transmission system. With that limitation in mind, any connections planned by RFP Respondents to MLGW's existing electric transmission system will be evaluated by incorporating MLGW's estimated costs of any upgrades required to MLGW's system to accommodate delivery. RFP Respondent is responsible for design, permitting, construction, testing, O&M of the Project electric lead line to the POI within the MLGW system and preferred POI locations. RFP Respondent shall bear such costs, not including network upgrade costs which MLGW will evaluate separately as part of the bid review.

Proposed local solar generation interconnections are contemplated to be at the points of interconnection (POIs) on the MLGW transmission system identified in **Figure 1**.

Figure 1 Two Local Solar Options for Approximate Locations of Point of Interconnection



The POI location A is the New Allen Substation and MLGW is seeking approximately 500 MW of PV solar in this area that will be connected to the MLGW 161 kV transmission system. POI location B is the Austin Peay Substation (not in existence today) and MLGW is seeking approximately 500 MW of PV Solar in this area that will be connected to the MLGW 161 kV transmission system.

The Respondent will be responsible for the siting, routing, permitting, transmission line ROW procurement, engineering, equipment and material procurement, construction, and commissioning activities associated with the interconnecting transmission line(s) from the proposed PV solar facility(ies) up to the POI. The plant output will be telemetered net of any station service loads and compensated for 161kV line losses, if applicable.

RFP Respondents will be required to submit a Generator Interconnection Request (GIR) as described in the MLGW Facility Connection Requirements document, Version 6.0, Section 2.01,

dated January 2021³. MLGW will notify RFP Respondents when the GIR will be required to be submitted and MLGW's schedule for completing the required impact studies.

2.1.2 Description of Services

Qualified Respondents must submit proposals that include the following services in support of a solar PPA, including the underlying technical details that support the solar PPA:

- Minimum project size of 50 MW however, this can be composed of distributed projects that aggregate to 50 MW; Maximum project size of 500 MW;
- Respondent should provide the site information and furnish the design and installation plan(s) for all components of the solar and optional BESS required to deliver the output to MLGW;
- Respondent shall be responsible for obtaining and paying for all permits, licenses, certificates, inspections, etc., both permanent and temporary.
- Respondent shall be responsible for removing and properly disposing of the equipment provided by the Respondent in the proposal and restoring all sites back to their original conditions after the useful life has expired;
- The solar facility shall integrate with MLGW's SCADA network via fiber optic cable installed from the facility to the substation control house. The Respondent should assume that there is existing fiber communication line installed and available at the injection point for use with a proposed project.
- Respondent will not need to demonstrate site control at the time of submitting the RFP proposal. However, MLGW will require that the Respondent demonstrate site control during the contract negotiation phase. As part of Respondent's proposal, please provide the estimated land lease cost in the form of a PPA adder (in \$/MWh).

2.1.3 Local Solar Plus Storage Description

MLGW is also requesting pricing for optional four-hour BESS that is integrated with the Respondent's proposed local solar facility. These energy storage systems would be cycled on a regular basis and will be primarily used to store mid-day generation for later use, extending the

³ See MLGW Facility Connection Requirements document: <https://www.mlgw.com/builders/facilityconnection>

solar energy into the late afternoon and evening hours, and reducing market purchases during peak pricing hours. The BESS option is a not a mandatory requirement of this RFP and Respondents may elect to provide local solar generation proposals with no BESS option.

2.1.4 Pricing Structure

The Bid Price shall be on an “as-available” per MWh basis. Pricing must include all capital costs, fixed and variable O&M costs, taxes and any other costs associated with delivering the full contracted energy output of the facility to the bid-specified POI. For purposes of this solicitation, the sale of renewable energy to MLGW under the PPA includes the transfer of all energy, capacity, ancillary services (if any), and environmental attributes including associated renewable energy certificates (RECs) and any other current or future environmental attributes, including any greenhouse gas emission reductions associated with the quantity contracted from a facility or project for the term of the PPA.

As contained in Attachment C Bid Forms, MLGW anticipates the following pricing elements to be included in the Respondent’s proposal.

- Term – all proposals must include a minimum PPA term of 15 years for the proposed project with an expected COD in 2027 or 2028;
- Solar Unit Contingent PPA Rate – expressed in \$/MWh for delivered generation and fixed for the entire term or escalated annually by a fixed index;
- Optional BESS facility shall be given in \$/kW-mo and fixed for the entire term or escalated annually by a fixed index.

2.1.5 Performance Guarantees

- Monthly Availability Guarantee is 85% with Early Termination rights for underperformance below 80% availability for two (2) consecutive years or in a cumulative total of three (3) contract years.
- Liquidated Damages of \$20/MW per every hour for any availability deficiency below 85% commercial availability.
- Delay damages of \$200/MW-day for not achieving Commercial Operating Conditions prior to expected COD.
- Project Development Security: \$75,000/MW is required after notice to proceed is issued.
- Delivery Term Security: \$75,000/MW for first 15 years of operation; \$37,500/MW for year 16 to the end of term.

2.2 MISO SOLAR AND WIND RESOURCES

The delivery of MISO renewables and other MISO alternative resources will be made possible by the corresponding 2,400 MW of firm transmission import capability being sought through MLGW's separate Transmission Interconnection Projects RFP. Please refer to that RFP⁴ for further details regarding the proposed MISO interconnection points.

MLGW is seeking proposals for existing or new renewable resources located in MISO South Arkansas or Mississippi service areas for a minimum term of 15-years. MLGW will accept proposals for planned resources that will achieve COD within 12 months of January 1, 2028 with preference for projects already in the MISO interconnection queue. The MISO solar and wind request is focused on the resources identified in the Siemens IRP with proposals provided by RFP Respondents to accomplish an aggregate of Projects. MLGW is seeking 400 MW of wind and over 2,000 MW of solar in accordance with Portfolios 6 and 9.

2.2.1 Pricing Structure

RFP Respondents shall provide pricing at the proposed project's MISO point of interconnection. The Bid Price shall be on an "as-available" MWh basis with no separate capacity payment. Pricing must include all capital costs, all O&M costs, and any other costs associated with delivering the full contracted energy output of the facility to the bid-specified Point of Delivery.

The Respondent's proposal must include all cost components reflecting a contract price that MLGW would pay to Respondent under the unit-contingent PPA. The "all in" contract price would be for all products associated with the generation and delivery to the bid-specified Point of Delivery of capacity, energy, ancillary services, and environmental attributes from the Respondent's proposed project. As contained in Attachment D Bid Forms, MLGW anticipates the following key pricing elements to be included in the Respondent's proposal.

- Term – minimum PPA term of 15 years with a start date no later than January 1, 2028;
- Point of Delivery – Project Bus Bar;
- Unit Contingent PPA Rate – expressed in \$/MWh for delivered generation and fixed for the entire term or escalated annually by a fixed index;

⁴ See Transmission RFP Document:

https://www.mlgw.com/images/content/files/pdf/MLGW_MISO%20Interconnection%20RFP_7-12-2021_Final.pdf

2.2.2 Performance Guarantees

- Monthly Availability Guarantee is 85% with Early Termination rights for underperformance below 80% commercial availability for two (2) consecutive years or in a cumulative total of three (3) contract years.
- Liquidated Damages of \$20/MW per hour for any availability deficiency below 85% availability.
- Delay damages of \$200/mw-day for not achieving Commercial Operating Conditions prior to expected COD.
- Project Development Security: \$75,000/MW is required after notice to proceed
- Delivery Term Security: \$75,000/MW for first 15 years of operation; \$37,500/MW for year 16 to the end of term.

2.3 EXISTING OR NEW, NON-RENEWABLE MISO SOUTH RESOURCES

MLGW is seeking proposals for existing or new non-renewable generation located in MISO South Arkansas or Mississippi service areas for a minimum term of 10-years. For new non-renewable resources, MLGW will accept proposals for resources that will achieve COD by January 1, 2025.

The proposed resource must be a qualified NRIS resource and deliverable on a firm basis to MLGW with associated transfer capability. In addition, any generation resource that is qualified, pursuant to the MISO Tariff, as a MISO External Resource with capacity accreditation in Local Resource Zones 8 (Arkansas) or 10 (Mississippi), will also qualify to participate in this RFP. For clarification, the generator owner would operate and maintain the generation resources proposed as part of this RFP and will be operating under the MISO Balancing Authority and participating in the MISO capacity, energy, and ancillary services market.

MLGW will also accept proposals from non-MISO South generation resources; however, the Respondent must demonstrate firm transmission service arrangements from those resources to MLGW.

2.3.1 Pricing Structure

The Respondent's proposal must include all cost components reflecting an "all in" contract price that MLGW would pay to Respondent under the unit-contingent PPA. The "all in" contract price would be for all products associated with the generation and delivery to the bid-specified Point of Delivery of capacity, energy, ancillary services, and environmental attributes from the Respondent's

proposed project. As contained in Attachment E Bid Forms, MLGW anticipates the following pricing elements to be included in the Respondent's proposal.

- Term – all proposals must include a minimum PPA term of 10 years for the proposed project with an expected start date no later than January 1, 2028;
- Capacity Rate – expressed in \$/kW-year and based on the proposed generation's ICAP (minimum 50 MW) and can either be fixed for the entire term or escalated annually by a fixed index;
- Fixed O&M – expressed in \$/kW-year and based on the proposed generation's ICAP and can either be fixed for the entire term or escalated annually by a fixed index;
- Variable O&M Rate – expressed in \$/MWh for delivered generation and fixed for the entire term or escalated annually by a fixed index;
- Non-Fuel Start Charge – expressed in \$/Completed Start and fixed for the entire term or escalated annually by a fixed index;
- Fuel Charge – expressed in \$/MWh for delivered generation and based on a guaranteed heat rate and fuel price index;
- MLGW anticipates that the Respondent will supply natural gas fuel to the generation facility.

2.3.2 Performance guarantees

The Respondent's proposal must include performance guarantees for various elements of the generating plant. As contained in the Attachment E Bid Forms, MLGW requires the following performance guarantees to be included in the Respondent's proposal.

- Heat Rate – a guaranteed heat rate with points along the curve corresponding to actual and projected heat rates of the generation resource at the available dispatch levels.
- Availability – monthly availability requirements should be standard for the generation resource technology (e.g. 98% for SCCT) and the monthly availability requirements would exclude planned maintenance outages. Likewise, the rolling 12-month availability requirement should be standard for the specific generation resource technology (e.g. 85% for CCCT resources) and this does include planned/unplanned maintenance outages. Failure to meet the availability requirements will result in payment reduction to Respondent.
- Emissions – emissions thresholds at 100% capability fired and unfired for SO₂, NO_x, CO, CO₂, VOC, and other dispatch related emissions.

- Ramp Rate / Start-Up Time – ramp rates for 50% operating level and up to maximum capability. Start-times for cold, warm, and hot starts (to achieve minimum operating level).
- Capacity / Capability – the annual amount of generating capacity available to MLGW, pursuant to testing and acceptable degradation, should be guaranteed. As a reminder, capacity payments will be based, in part, on the annual ICAP rating of the project.
- Minimum-Run Time & Minimum Down-Time – Respondents should designate the allowable minimum run-times and down-times (including number of starts per day) for each generation resource.

2.4 MISO SOUTH ENERGY-ONLY BLOCKS

MLGW is seeking structured market energy-only block products to supplement its overall MISO energy requirements. MLGW is seeking proposals for standard annual MISO market energy products from individual Respondents in quantities as described in the table below:

Table 3 MISO South Energy-Only Blocks

Energy Block Product	Minimum Quantity	Maximum Quantity
7x24	50 MW	200 MW
5x16	50 MW	200 MW
7x8	50 MW	200 MW

Overall, this RFP is seeking up to 500 MW of 7x24 energy-only blocks, 300 MW of 5x16 energy-only blocks and 500 MW of 7x8 energy-only blocks.

2.4.1 Pricing Structure

The Respondent's proposal must reflect the contract price that MLGW would pay to Respondent under the PPA for delivered energy. As contained in Attachment F Bid Forms, MLGW anticipates the following pricing elements to be included in the Respondent's proposal.

- Term – all proposals must include a minimum PPA term of 5-years for the proposed block product with an expected start date no later than January 1, 2028;
- Product – Day-Ahead, Firm Liquidated Damages (annual product, not seasonal)

- PPA Rate – expressed in \$/MWh for delivered generation and fixed for the entire term or escalated annually by a fixed index; Pricing must include all costs associated with delivering the full contracted energy to the bid-specified Point of Delivery;
- Point of Delivery – ARK.Hub or MS.Hub. MLGW will be responsible for congestion between the delivery point and its MISO interconnection.

2.4.2 Performance Guarantees

MLGW will be utilizing the standardized Edison Electric Institute (EEI) agreement as the contract structure for procuring MISO energy products. MLGW will require modifications to the standard EEI and expects to engage in EEI negotiations only with the short-listed vendors. Please reference a sample EEI Master Agreement⁵ and Section 1.9 of this RFP for the general performance guarantee expectations.

2.5 PARTIAL REQUIREMENTS CONTRACTS

MLGW is seeking long-term partial-requirements proposals that provide up to 1,500 MW of supplemental firm, non-interruptible capacity and associated energy, including MISO planning reserves, to serve MLGW's incremental load obligations which are not met by MLGW's thermal and local solar generation resources (i.e. thermal generation procured as a result of MLGW's Thermal RFP and local solar generation procured as a result of this RFP). The Respondent's partial-requirements proposal must include, at a minimum, the equivalent of the following items and services:

- Energy Management Services, including Local Balancing Authority (LBA) Services
- MDMA services
- MISO shadow settlements for load and resources
- PRA obligations
- Management of ARR/FTRs
- Day-Ahead Load Forecast and daily Demand Bid Submissions
- Generation scheduling services for MLGW's thermal & local solar resources

⁵ See Edison Electric Institute Master Contract: <https://www.eei.org/resourcesandmedia/Pages/Master-Contract-HP.aspx>

MLGW expects the points of delivery to be the new interconnection points with MISO, as shown in the MLGW Transmission Interconnection Projects RFP (Figure 1). Respondents should assume that MLGW will become a MISO NITS customer, and as such, Respondents will **NOT** be responsible for MISO transmission service, related ancillary charges, MISO administration fees, and metering/telemetry expenses. Aside from these items/services, Respondents must clearly identify all MISO related services and/or MISO charges/expenses, that Respondent is **NOT** providing.

2.5.1 Pricing Structure

The Respondent's proposal must include all cost components reflecting an "all in" contract price that MLGW would pay to Respondent under a partial-requirements contract. As part of the contractual obligation, the Respondent must be capable of providing LBA Services referenced in Section 2.5. As contained in Attachment G Bid Forms, MLGW anticipates the following pricing elements to be included in the Respondent's proposal.

- Term – all proposals must include a minimum contract term of 10-years with a start date of January 1, 2028;
- Capacity Rate – expressed in \$/kW-year and based on the proposed contract demand quantity and fixed for the entire term or escalated annually by a fixed rate;
- Energy Rate – expressed in \$/MWh for delivered energy and determined based on a guaranteed, fixed heat rate and a natural gas price index.

2.5.1 Key Contract Terms

Key contract terms will be negotiated with the short-list of Respondents but will include liquidated damages for non-performance as well as other terms and conditions as generally outlined in Section 1.9.

2.6 FULL REQUIREMENTS CONTRACT

MLGW is seeking long-term full-requirements proposals that provide 100% of MLGW's total load obligations (approximately 3,200 MW peak demand and associated energy) and would be firm, non-interruptible capacity and associated energy, including the appropriate planning reserves⁶. The

⁶ Siemens Load Forecast Memo: [http://www.mlgw.com/images/content/files/pdf/Load%20Forecast%20Memo_01-22-20\(1\).pdf](http://www.mlgw.com/images/content/files/pdf/Load%20Forecast%20Memo_01-22-20(1).pdf)

Respondent's full-requirements proposal must include, at a minimum, the equivalent of the following items and services:

- Energy Management Services, including Local Balancing Authority (LBA) Services
- MDMA services
- MISO shadow settlements
- PRA obligations
- Management of ARR/FTRs
- Day-Ahead Load Forecast and daily Demand Bid Submissions

MLGW expects the points of delivery to be the new interconnection points with MISO, as shown in the MLGW Transmission Interconnection Projects RFP (Figure 1). Respondents should assume that MLGW will become a MISO NITS customer, and as such, Respondents will **NOT** be responsible for MISO transmission service, related ancillary charges, MISO administration fees, and metering/telemetry expenses. Aside from these items/services, Respondents must clearly identify all MISO related services and/or MISO charges/expenses, that Respondent is **NOT** providing.

MLGW will also accept alternative, non-MISO full-requirements proposals; however, the Respondent must demonstrate firm transmission service arrangements to MLGW.

2.6.1 Pricing Structure

The Respondent's proposal must include all cost components reflecting an "all in" contract price that MLGW would pay to Respondent under a full-requirements contract. As part of the contractual obligation, the Respondent must be capable of providing LBA services referenced in Section 2.5. As contained in Attachment G Bid Forms, MLGW anticipates the following pricing elements to be included in the Respondent's proposal.

- Term – all proposals must include a minimum contract term of 10-years with a start date of January 1, 2028;
- Capacity Rate – expressed in \$/kW-year and based on the proposed contract demand quantity and fixed for the entire term or escalated annually by a fixed rate;
- Energy Rate – expressed in \$/MWh for delivered energy and determined based on a guaranteed, fixed heat rate and a natural gas price index.

2.6.2 Key Contract Terms

Key contract terms will be negotiated with the short-list of Respondents but will include liquidated damages for non-performance as well as other terms and conditions as generally outlined in Section 1.9.

3 PROPOSAL SUBMISSION, CONTENT, AND FORMAT

3.1 RFP RESPONSES

Qualified Respondents interested in participating in any of MLGW's requested resources/services are required to submit a Proposal. A Proposal comprises a completed Proposal Template (.doc), completed Bid Forms (.xlsx), all required attachments referenced therein, and any additional information deemed necessary by the RFP Respondents.

In developing a proposal, RFP Respondents must use the provided Proposal Template and Bid Forms. This RFP package, which is available for download on <https://www.mlgw.com/powersupplyinfo>, includes the following:

Part 1: Request for Proposal (RFP)

Part 2: Proposal Template (.doc)

Part 3: Bid Forms (.xlsx)

To be accepted for consideration, qualified Respondents must submit a Proposal utilizing the provided Proposal Template and Bid Forms and must strictly adhere to the instructions and guidance provided.

3.2 QUALIFICATIONS TO SUBMIT A PROPOSAL

RFP Respondents are to include the following information regarding financial resources and experiences with similar projects.

- Description of Capital Resources including Capital Reserves
- Credit Ratings and reports
- Audited and Pro Forma Financial Statements or similar information
- Relevant experience with developing resources or services
- Client references associated with the referenced resources or services

3.3 PROPOSAL SUBMISSION DEADLINE

An electronic copy of each Proposal shall be submitted to the portal, <https://contractsrfp.mlgw.org>, as specified in this RFP, by no later than 5:00 PM Central Prevailing Time (CPT) on December 6, 2021 (the Proposal Submission Deadline). An electronic copy will not be accepted via e-mail.

3.4 PROPOSAL FORMAT AND CONTENT

MLGW has provided a proposal template (Attachment B) for Proposal submissions titled Proposal Template and Bid Forms that are publicly posted on the MLGW website. Proposals shall utilize the Proposal Templates and must complete them to the specified level of detail.

Electronic Submission Format:

Proposals shall be submitted in Microsoft Office, Adobe Acrobat .pdf (.pdf text must be able to be copied and pasted into Microsoft Word as text rather than as an image), or in a format of a similar nature readable by Office or Acrobat applications. No electronic executable files (*.exe) will be accepted by MLGW.

3.5 PROPOSAL CURE PERIOD

MLGW will review Proposals for completeness and will notify RFP Respondents whether their Proposal is complete or deficient within thirty (30) Calendar Days of the Proposal Submission Deadline. Any Proposal deemed to be deficient will have a single Proposal Cure Period of thirty (30) Calendar Days from the date of such notification to submit information necessary to satisfy all the Proposal requirements. Proposals that are not complete at the end of the Proposal Cure Period will be deemed invalid and will not be evaluated or considered further and the Proposal Security will be returned. Changes to the estimated pricing will not be accepted after initial submission of the Proposals.

3.6 LIST OF PROPOSALS RECEIVED

Each RFP Respondent will be assigned a unique identification number. Any public posting of proposals received will use this identification number.

3.7 PREPARATION & SUBMISSION EXPENSES

MLGW is not liable for any expenses incurred by a Respondent in the preparation and submission of a Proposal.

4 EVALUATION OF PROPOSALS

MLGW will utilize evaluation criteria to perform a comparative analysis of all Proposals submitted prior to the Proposal Submission Deadline, which are valid, have been cured of any deficiencies, and have not been withdrawn.

4.1 EVALUATION CRITERIA

MLGW will consider the following four (4) general categories and associated weighting in evaluating Proposals ("Evaluation Criteria") and an additional bonus category for supplier diversity, contained in the Scoring Rubric as referenced in **Table 4**, **Table 5**, and **Table 6**.

The diverse power supply categories that are requested as part of this RFP have scoring criteria specific to the power supply alternative.

Table 4 Solar/Wind Generation PPA Evaluation Metrics/Criteria

Solar Generation PPA Evaluation Metrics/Criteria				
Evaluation Principles Applied (Certainty, Risk Mitigation, Cost & Specificity)	Criteria		Sub-criteria	Example Score
	Pricing Structure	30%	PPA Rate Cost / Charge (\$/MWh)	30
			Land Lease Estimated Cost / Charge	
			Pricing Structure	
			Payment Terms	
	Commercial	30%	Commercial Operating Date	30
			Environmental Attributes	
			Delay Damages ("if applicable")	
			Availability & Guaranteed Energy Production	
			MISO Queue Position ("if applicable")	
	Viability	20%	Financial / Creditworthiness	20
			Technical Design	
			Modules and Racking System Quality	
			Inverter and Balance of Plant Quality	
			Land Use and Footprint (Local Solar)	
	Experience	20%	Operating Constraints (i.e. permits)	20
			Engineering and Construction	
Procurement				
O&M				
Safety Record				
Asset Management				
Sub-Total Score Before Supplier Diversity Bonus Points				100
Bonus Points	Supplier Diversity	Local firm and MBWE participation*		5
Total Score After Supplier Diversity Bonus Points				105

Wind Generation PPA Evaluation Metrics/Criteria				
Evaluation Principles Applied (Certainty, Risk Mitigation, Cost & Specificity)	Criteria		Sub-criteria	Example Score
	Pricing Structure	40%	PPA Rate Cost / Charge (\$/MWh)	40
			Pricing Structure	
			Payment Terms	
	Commercial	20%	Commercial Operating Date	20
			Environmental Attributes	
			Delay Damages ("if applicable")	
			Availability & Guaranteed Energy Production	
			MISO Queue Position ("if applicable")	
	Viability	20%	Financial / Creditworthiness	20
			Technical Design	
			Turbine Quality	
			Inverter and Balance of Plant Quality	
	Experience	20%	Operating Constraints (i.e. permits)	20
Engineering and Construction				
Procurement				
O&M				
Safety Record				
Asset Management				
Sub-Total Score Before Supplier Diversity Bonus Points				100
Bonus Points	Supplier Diversity	Local firm and MBWE participation*		5
Total Maximum Score After Supplier Diversity Bonus Points				105

Table 5 Other Generation PPA/EEI Evaluation Metrics/Criteria

Non-Renewable Thermal PPA Evaluation Metrics/Criteria				
Evaluation Principles Applied (Certainty, Risk Mitigation, Cost & Specificity)	Criteria		Sub-criteria	Example Score
	PPA Pricing Structure	40%	Fixed Cost / Charge (\$/kW-mo rate)	40
			Non-Fuel Variable Cost / Charge (\$/MWh rate)	
			Start-Up Cost / Charge (\$/Start)	
			Fuel Pricing Structure (e.g. index plus basis)	
			Payment Terms	
	Performance Guarantees	20%	Heat Rate	20
			Availability	
			Emissions	
			Ramp Rate / Start-Up Time	
			Capacity / Capability	
			Minimum Run-Time / Down-Time	
	Viability	20%	MISO Queue Position	20
			Technical	
			Environmental	
	Experience	20%	Financial / Creditworthiness	20
Design				
Construction Management				
O&M				
Safety				
Asset Management				
Sub-Total Score Before Supplier Diversity Bonus Points				100
Bonus Points	Supplier Diversity	Local firm and MBWE participation*		5
Total Maximum Score After Supplier Diversity Bonus Points				105

MISO Energy Only Blocks Metrics/Criteria				
Evaluation Principles Applied (Certainty, Risk Mitigation, Cost & Specificity)	Criteria		Sub-criteria	Example Score
	Cost	60%	PPA Rate / Charge (\$/MWh)	60
			Payment Terms	
	Commercial	40%	Environmental Attributes	40
			Term of Agreement	
			Financial / Creditworthiness	
			Delivery Point	
Market Product & Conformity				
Sub-Total Score Before Supplier Diversity Bonus Points				100
Bonus Points	Supplier Diversity	Local firm and MBWE participation*		5
Total Maximum Score After Supplier Diversity Bonus Points				105

Table 6 Partial and Full-Requirements PPA Evaluation Metrics/Criteria

Partial and Full-Requirements PPA Evaluation Metrics/Criteria				
Evaluation Principles Applied (Certainty, Risk Mitigation, Cost & Specificity)	Criteria		Sub-criteria	Score
	Pricing Structure	30%	Capacity Cost / Charge (\$/kW-mo)	30
			Energy Cost / Charge (\$/MWh)	
			Pricing Structure (i.e. fixed capacity price, fixed heat rate, etc.)	
			Payment Terms	
	Commercial	30%	Term of Agreement	30
			Energy Management & LBA Services	
			Credit Support	
			Non-Performance Damages & Guarantees	
	Viability	20%	Technical Capability	20
			Back / Mid / Front Office Structure & Support	
			Risk Management Structure / Policies	
			Financial / Creditworthiness	
Experience	20%	MISO Market Participant	20	
		Partial / Full Requirements Service		
		MISO Market Integration		
		Asset Management		
Sub-Total Score Before Supplier Diversity Bonus Points				100
Bonus Points	Supplier Diversity	Local firm and MBWE participation*		5
Total Maximum Score After Supplier Diversity Bonus Points				105

4.2 EVALUATION PRINCIPLES

In evaluating Proposals, MLGW's evaluation and weighting criteria will be guided and influenced by the collective application of the following evaluation principles.

The evaluation principles are intended to provide a framework for evaluating Proposals. In considering the aspects listed above, MLGW's evaluation of Proposals will be guided and influenced by the collective application of the following:

- **Certainty** - Providing a high degree of certainty and predictability
- **Risk Mitigation** - Reflecting the lowest risk to the success of the project and operating performance
- **Cost** - Meeting all requirements at the lowest overall cost
- **Specificity** - Providing a high degree of specificity and detail

4.3 LOCAL FIRM AND MWBE CRITERIA AND EVALUATION

In evaluating proposals, MLGW will provide up to five (5) "bonus points" expressed in percentage adders to the RFP Scoring Rubric. Bonus Points will be awarded if the prime contractor includes a subcontractor that is a certified MBE, LSB or WBE. Points will be based on the spend percentage of the Indicative Project Cost from the Bid Forms. The Bonus Point tiers are as follows:

- 10% = 1 bonus point
- >=10% to less than 20% = 3 bonus points
- >=20% = 5 bonus points

Learn more about the Supplier Diversity program, advocate agencies, our business classifications and more at <https://www.mlgw.com/about/supplierdiversityabout>.

4.4 NOTIFICATION OF RENEWABLE & OTHER PROJECTS AWARD

MLGW will post the name of the selected Respondent(s) on its website by **December 5, 2022**.

4.5 CONTRACT

It is anticipated that MLGW and the selected Respondent(s) will execute a Contract no later than January 3, 2023. The Contract may include Supplementary and other Conditions and specifications furnished by MLGW for the guidance and assistance of the Respondent herein referred to as the Contract Documents. The Contract Documents comprising the complete contract should supplement, but not duplicate each other and together constitute one (1) complete set of Specifications. Any work exhibited in the one and not in the other shall be executed just as if it had been presented in

both. The Work shall be completed in every respect, according to the complete designs as decided and determined by MLGW.

4.6 STANDARDS, REQUIREMENTS, & GUIDELINES

Respondents shall utilize Prudent Utility Practices and applicable industry Codes and Standards (e.g., relevant ASCE, ASME, ASTM, IEEE, ISA, NEC, NEMA, NFPA, IBC, etc.) in the development, permitting, design, construction, and operation and maintenance of the underlying projects that support the relevant PPA. In addition, Respondent shall meet all Federal, State and local laws, regulations and requirements in accordance with the Authorities Having Jurisdiction.

RFP Attachments

Attachment A: Non-Disclosure Agreement

Attachment B: Proposal Template

Attachment C: Local Solar Bid Forms

Attachment D: MISO Renewables Bid Forms

Attachment E: MISO Non-Renewable Bid Forms

Attachment F: MISO Energy Only Block Bid Forms

Attachment G: Partial/Full Requirements Bid Forms

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