Entergy Power Through Program Overview

Power Through (PT) is Entergy Services, LLC (ESL)'s innovative Resiliency-as-a-Service (RaaS) offering for Entergy Operating Companies' ("OpCos") eligible commercial and industrial (C&I) customers that have a need for higher-than-standard service reliability. PT primarily utilizes natural gas generators (gensets) sized from 100kW to 10MW that operate as either supply response (grid synchronous) or demand response (closed transition). In either configuration, the system will provide full-facility standby power to Entergy customers, allowing them to continue their normal business operations. The PT offering includes the design, procurement, installation, operation, and maintenance of the resiliency assets, which are customer-sited, but owned by the respective OpCo and installed in front of the customer's utility meter. The assets will be utilized for emergency standby during grid outages in addition to market purposes (such as favorable market conditions or high grid demand).

The program's intent is to offer the program in all OpCo service territories (EAL, ELA, EML, ENO, & ETI).

In addition to natural gas generators, Entergy Louisiana, LLC (ELL) has also been approved to implement a Solar + Battery energy storage system (BESS) option to its customers. The Solar + BESS integration option is intended to offer Entergy Louisiana, LLC's (ELL) customers the alternative option of a Solar + BESS reliability as a service offering that will similarly be utilized for emergency standby in addition to market demand support over a 20-year period.

Scope Definition

PT is seeking contractors to support the growth of our solar + BESS Resiliency-as-a-Service business in the C&I markets by providing Entergy with a complete solution that will align with Entergy's business needs and meet the requirements defined in this RFP, including the program standards and specifications referenced herein. The focus and emphasis of this RFP is to identify contractors with full turnkey Resiliency-as-a-Service solution(s) that will help ESL deploy a commercial resiliency program. Turnkey RaaS includes sales, marketing, engineering, procurement, & construction (EPC), operations (monitoring, control, & dispatch), asset management, and maintenance services.

The PT program would provide two benefits:

- <u>Supply Response and Demand Response Operation</u> Entergy would call on the solar + BESS to supply power to the grid (grid-synchronous Supply Response) or remove the customer load from the grid (closed-transition Demand Response) during times of peak grid demand and favorable market conditions. This is accomplished by using a grid-synchronous or closed transition transfer generator solution to inject or power or remove load from the grid.
- <u>Power Resiliency</u> Provide customer with standby emergency power during grid outages.

In support of supply response and demand response services, Entergy would have the option to "dispatch" the solar + battery energy storage via the contractor's provided Network Operations Center (NOC) and technology solution and/or other ESL-managed third-party solutions. The solution must be able to track and report on the health and performance of system component and record power output from each generator as part of calculating and paying out incentives for program participation. While a high-level program design is in place for monitoring and control, Entergy is currently developing its long-term SCADA strategy and remains open to alternative options and strategies. Responding vendors are encouraged to provide recommendations on solutions that best fit this approach when formulating their response.

The following sections describe in detail the expectations, experience, and capabilities desired by Entergy to support a Customer-sited, Solar + Battery Energy Storage System-based Resiliency-as-a-Service Program. Entergy requests that the bidder address each of the following elements in their technical proposal response and describe how their products and services support the capabilities described.



Additionally, bidders shall address PT engineering and constructions standards and specifications in their response. See Next page for Technical Submittal Requirements.

See Attachment A-3 for PT engineering and constructions standards and specifications

1. Engineering, Procurement, & Construction Experience (EPC) / Capabilities

Instructions:

Entergy is seeking to procure products and services from qualified and experienced companies with a history of successful and proven solar + BESS program implementations in the U.S. of comparable size, scope, and complexity to Entergy's program. In their response, bidders shall both summarize and provide a narrative of their experience in providing services described below and shall address each of the following items (A-E), at a minimum.

Include relevant information that demonstrates your capabilities, experience, and approach. Address whether your capabilities are in-house or through a subcontractor/team. If your relevant experience for a specific service element (E-P-C) is from a subcontractor / team member, identify the subcontractors/team members and provide relevant and specific details of your experience working with the subcontractor/team member to provide that service AND include specific roles and responsibilities of what services will be self-performed vs. subcontracted.

In addition to summarizing its experience & capabilities with each aspect of the services described below, Bidders shall provide at least three (3) examples of solar + battery energy storage programs in the U.S. where Bidder provided the similar or relevant services as contemplated in this RFP. Three examples are the minimum, though more examples are encouraged. To help understand Bidder's experience in such implementations, Bidder must complete "Attachment B – Qualifications & Project References".

- A. Demonstrated relevant experience to offer turnkey EPC solutions that include the design, procurement, construction, construction/environmental permit acquisition, and commissioning for commercial/industrial gensets.
 - Relevant & Recent solar + BESS turnkey experience for C&I customers (within last 5 years include experience with systems of similar size & complexity and preferably within the State of Louisiana and/or southeastern United States)
 - o Grid Synchronization, Closed-Transition experience, and Standby Emergency Power
 - Commissioning / Site Acceptance Testing experience, processes, and methodology
 - Experience obtaining construction and environmental permitting
 - Overview of Resource Capabilities within Entergy territories (ELL, ENOL, ETI, EML, EAL)
 - Other relevant distributed generation experience including experience w/ Entergy & other regulated utilities
 - Behind-the-meter load management (including automated programs and technology)
 - Major Subcontractors Experience / Partners Relevant Experience
 - Project References as per Attachment B Qualifications & Project References
- B. Demonstrated relevant Microgrid Engineering / Design experience
 - In-House capability vs. Outsource (subcontractors)
 - Design experience / standards for different facility types (local, state, national codes (NEC, NFPA), etc.) for C&I customers
- C. Turnkey EPC Execution Summary / Project Organization Overview (ex: engineering/design, procurement, construction/installation, project management, commissioning etc.)
 - Project Execution Overview Turnkey Contracting Model (Self Perform vs. Subcontract)

- Offerors shall demonstrate their program execution plan on how they will execute projects including specific roles and responsibilities of what services will be self-performed as prime vs. subcontracted for full life cycle of EPC services.
- Project Organization Include Organization Chart and overview that details individual titles, roles and responsibilities for both prime and major subcontractors proposed to support the different phases of the PT program. The information should be clear and concise and demonstrate a clear work flow of who will perform what aspects.
- Include Resumes of Key Personnel for both prime and major subcontractors
- D. Project Management / Controls / Scheduling- Established project management controls such as managing cost, schedules, change management, reporting etc.

2. Summary of Equipment / Product Offerings – Quality/Reliability/Configuration/Capabilities

Instructions:

Offerors are expected to specify hardware, equipment, and software they intend to deliver as part of the solution (including manufacturers). This includes configurations of solar + battery energy storage systems, ATS, software for managing the generation systems, as well as any support systems/equipment necessary for the execution of the program. The technology solution(s) identified should conform to the technical, communications, and safety standards outlined in this RFP and attachments, and have proven scalability to support Entergy's needs.

Offerors shall provide details of their proposed equipment offering to support the Power Through program. Offerors shall also provide information that demonstrates the quality and reliability of its proposed offering. Offerors shall include, at a minimum, information that specifies the following:

- A. Summarize and provide details of your equipment/product offerings, including manufacturers / suppliers, sizing / packaging of gensets (including configuration offerings / limitations)
 - Solar + Battery energy Storage, ATS, as well as telemetry equipment (communication & controls)
 - Detailed solar + battery energy storage system equipment specifications that address the following:
 - Grid Synchronization offerings
 - Closed-Transition ATS offerings
 - Battery energy storage system round trip efficiency
 - Single-phase and three-phase power
 - Battery degradation estimates (if possible, provide a range based upon different charge/discharge scenarios)
 - Sound Attenuation
 - Battery container HVAC systems
 - Other information that specifies and supports the quality and reliability of equipment/product offering
 - Telemetry, Communication & Controls equipment offering
 - Control network communications protocols for generator and switchgear/ATS control
 - Open source vs. proprietary
 - Solar and Battery Energy Storage System Lead Times (by size/configuration)
 - Equipment Matrix (by manufacturer / size/configuration options)
 - Inventory / Equipment Purchase Options
 - Supplier Owned/Stored / Consignment option
 - Entergy Owned/Contractor Stored
 - Any other additional product offerings / considerations

B. Provide a completed Design Basis and Fill-In Table for each equipment/product offering

- The Design Basis Fill-In Table is contained in Attachment 10.1 of the Power Through Engineering and Construction Standards and Specifications (Attachment A-3 of this RFP). The offeror shall complete the Contractor/OEM portion of the Design Basis Fill-In Table for each equipment/product offering.
- C. Summarize and Provide details of your proposed Extended Warranty Offerings (by Equipment, Ex: 5, 7, 10, 20 year)

3. Maintenance

Instructions:

Provide a narrative or overview that details your specific experience, capabilities, and strategic programs with providing the following. Include relevant information that demonstrates your capabilities. Address whether your capability is in-house or through a subcontractor/team. If subcontracted, identify the subcontractors/team members and provide relevant and specific details of your experience working with the subcontractor/team member to provide this service AND include specific roles and responsibilities of what services will be self-performed vs. subcontracted.

- B. Established service programs that promptly address solar + battery energy storage systems experiencing operational issues (reactive maintenance)
 - Overview of Resource Capabilities within Entergy territories (ELL, ENOL, ETI, EML, EAL)
 - Maintenance Execution Overview (self-perform vs. subcontract)
 - Overview of genset OEM equipment (manufacturers) included in your maintenance service offering (including OEM certifications)
 - Project Organization Include Organization Chart and overview that details individual titles, roles, and responsibilities for both prime and/or major subcontractor proposed to support maintenance services of the PT program. The information should be clear and concise and demonstrate a clear workflow of who will perform what aspects.
 - Include Resumes of Key Personnel for prime and/or major subcontractors.

C. Established predictive and preventative maintenance strategies and programs for battery energy storage systems that operate over the asset's useful life.

4. Sales & Marketing

Instructions:

Provide a narrative or overview that details your specific experience, capabilities, and approach with providing the following. Include relevant information that demonstrates your capabilities. Address whether your capability is in-house or through a subcontractor/team. If subcontracted, identify the subcontractors/team members and provide relevant and specific details of your experience working with the subcontractor/team member to provide this service AND include specific roles and responsibilities of what services will be self-performed vs. subcontracted.

D. Customer Acquisition - Experience to provide sales leads & work w/ Entergy customers in the Entergy service territory

- Sales experience for back-up generation / distributed generation / Resiliency-as-a-Service (RAS)
 - Relevant and Recent customers (include ongoing & exclusive customer relationships)
 - Include type/classification of customers (healthcare, retail, industrial, etc.)
- Sales experience in Entergy /OpCos with potential PT target customers
- Sales experience with other Utilities



5. Company Geographic Work Areas / LA Footprint in ELL service territory

Instructions:

Contractors shall provide details of their interest, experience, capabilities, and resources to perform full turnkey scope of services contemplated by this RFP in ELL service territories.

