



Bell County Water Control & Improvement District No. 1
Lake Belton Water Treatment Plant



Request for Design-Build Proposals
for
10 MW Backup Power Generation Facility

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1. Introduction

Bell County WCID No.1 (“WCID1” or the “District”) , rated a Superior Water System by the Texas Commission on Environmental Quality, provides water to the following cities and water districts: Fort Hood, City of Killeen, City of Copperas Cove, City of Harker Heights, City of Belton, Bell County WCID No.3 (Nolanville), 439 Water Supply Corporation, and Belton Lake Outdoor Recreation Area (BLORA). The District serves a population in excess of 250,000 people and can treat and deliver over 90 million gallons of water daily.

The District owns and operates three wastewater treatment facilities with a total capacity of 30 million gallons per day. These facilities serve the City of Killeen and Fort Hood.

The drinking water supplied by the District comes from surface water supplied by Lake Belton. Lake Belton has a capacity of 887,000 acre-feet of water, of that amount, 372,000 acre-feet is reserved for water supply.

The 90 MGD Lake Belton Water Treatment Plant at 5200 Water Works Road in Belton, Texas (the “Plant”) has operated without a backup power supply since the early 1950’s. While the Plant’s power supply was not interrupted during the recent winter storm event, the power quality during much of the event precluded operation of the plant’s largest VFD-driven pumps. This severely constrained operations in the Plant and highlighted the need for this backup power project.

The District’s electricity supply is provided under a fixed price supply contract with GEXA Energy through June of 2025, followed by a second fixed price contract with Reliant Energy through January of 2035.

The District also contracts with MP2 Energy for QSE services. This contract runs through January of 2024 and covers the District’s participation in 4CP cost avoidance, ERCOT ERS, and Oncor load management programs.

2. Project Overview

The Plant receives electrical service at 2400V from three Oncor-owned 5 MVA transformers (24.9KV primary/2.4 KV secondary). The electrical single line diagram for the Plant is included as Attachment 1. Recent interval and scalar load data included in the RFP package shows maximum demand values in the 7,300 KW range. Note that the demand excursion in excess of 10 MW shown in the interval data on April 4, 2021 is thought to be a metering data issue. This level of demand does not appear in the Oncor scalar data that was billed for the period.

WCID1 is seeking proposals from qualified contractors (each a “Developer”) to address all of the design/build services required for the installation and commissioning of 10 MW +/- of standby-rated backup power generation to serve the Plant’s load and provide some room for load growth (the “Project”).

In addition to installation and commissioning services, WCID1 values creative approaches to equipment warranties, on-going maintenance services, remote monitoring/dispatch services, fuel storage/service/maintenance services (where applicable), and other capabilities that will enhance the reliability and lifecycle value of the system. As a critical utility provider in central Texas, the reliability of the platform is of ultimate importance to the District.

WCID1 is anticipating funding the Project from the District's existing sources of capital. However, Developers that offer financed or leased structures that minimize or eliminate WCID1's upfront capital requirements should describe these options in their proposal.

3. General RFP Requirements

Respondents are requested to indicate their intent to submit a proposal by sending an email to josh.coleman@energyby5.com, with a copy to r.garrett@wcid1.com prior to the intent to bid due date included in Section 4 – RFP Timeline.

Each Developer shall thoroughly read this Request for Proposal (“RFP”) and all attached documents/exhibits carefully to ensure the Developer's proposal addresses all requirements.

Proposals shall be submitted in the format specified in Section 9.0 with fonts no smaller than 12pt.

Each Developer shall complete and return the Bid Summary (the EXCEL file included with RFP) as a part of their proposal.

Proposals will be accepted by email up to the due date included in Section 4 – RFP Timeline. Please email proposals to josh.coleman@energyby5.com, with a copy to r.garrett@wcid1.org. Proposals received after the deadline may be rejected.

WCID1 is not obligated to select a Developer based on the results of the RFP. WCID1 reserves the right to discontinue the RFP process at any time, for any reason, and WCID1 makes no commitments, implied or otherwise, that this process will result in a business transaction with one or more Developers.

Any and all costs or expenses associated or incurred in the preparation and submission of a Developer's proposal and any other evaluation materials requested by WCID1 shall be borne solely by the Developer. WCID1 shall not be liable for any costs and/or expenses that a Developer may incur as a result of this RFP.

All questions relating to any aspect of this RFP must be submitted by email prior to the question due date included in Section 4 – RFP Timeline. Please email questions to josh.coleman@energyby5.com, with a copy to r.garrett@wcid1.org.

WCID1 will make every attempt to answer all questions. Such questions and answers shall be made available to all Developers participating in this RFP to help ensure consistent and equal

interpretation of the RFP. However, no information will be shared which is proprietary to, or is the unique innovative initiative or intellectual property of, any individual Developer.

All proposals become the property of the District upon receipt and will not be returned. Any information deemed to be confidential by a Developer should be clearly noted on the page(s) where confidential information is contained; however, under the State of Texas Public Information Act, a Court order or the Texas Attorney General may compel the District to disclose all or part of any public record not considered confidential under Texas Law.

4. RFP Timeline

Event	Date
Advertise RFP Opening	January 14, 2022
RFP Submitted to Developers	January 28, 2022
Intent to Bid Notice Due from Developers	February 2, 2022
Pre-Proposal Conference and Site Visit	February 11, 2022
Questions Due	February 18, 2022
RFP Responses Due	March 11, 2022
Selection of Finalist(s)	March 25, 2022
Contract Negotiation Complete	April 15, 2022
WCID1 Board Approval	On or about April 20, 2022

5. Evaluation and Selection Criteria

The successful Developer will demonstrate core competencies in the disciplines required to design, construct and commission high reliability backup power systems for critical load applications.

The following outlines the scoring matrix that will be used to evaluate and compare a Developer’s proposal:

Criteria	Weighting	Score Range	Max Possible Points
Developer demonstrates the qualifications required to successfully implement the project	20%	0 to 10	2
Developer’s proposal fully addresses the requirements outlined in the RFP	10%	0 to 10	1

Developer's offerings related to on-going maintenance, fuel service (if applicable), monitoring services and extended warranty add value to the District.	10%	0 to 10	1
Developer's technology package meets or exceeds the requirements of the RFP.	20%	0 to 10	2
The total design/build cost proposed by the Developer is competitive.	40%	0 to 10	4
Total Score Possible			10

6. Site Considerations

- Generator Yard

The image below shows the planned location for the generator yard. The area available for the new equipment is approximately 70 ft x 150 ft.



- Diesel and DEF Storage

The location of any tanks required to store diesel and DEF shall be situated to allow easy access for maintenance and filling operations.

- Natural Gas Supply

WCID1 is currently evaluating their options for extending adequately sized natural gas service to the Plant. For the purposes of this RFP, Developers should assume that adequate natural gas supply is available within 100 ft of the generator yard.

7. Technology Considerations

This RFP is structured to allow WCID1 to gather design/build proposals for the installation of 10MW +/- of standby rated backup power generating capacity that is designed and permitted for emergency operation only under current TCEQ and EPA regulations (herein referred to as the “Base Bid”).

This RFP requests an optional proposal that would allow WCID1 to operate the generator in certain non-emergency applications such as 4CP cost avoidance, ERCOT and Oncor-sponsored grid reliability programs as well as certain economic response programs offered as a part of WCID1’s electricity supply contract(s). This option can be accomplished with either natural gas or diesel fired engines with the appropriate emissions characteristics.

Regarding transfer switch technology, the Base Bid shall include open transition (break before make) transfer switch technology. The District also requests optional proposals that could be paired with a non-emergency engine that would allow either closed transition (make before break) or full parallel operation to facilitate export of excess generating capacity.

8. Technical Specifications and Other Requirements

Developers shall provide a comprehensive set of services to project manage, design, permit, construct, test and commission the Project as further described below.

The design shall address all aspects required to deliver a safe and reliable installation that complies with the applicable TCEQ, NFPA, NEC and UL standards that apply to permanently installed backup power systems.

The plans shall be reviewed and approved/stamped by an Engineer licensed in the State of Texas.

The electrical design shall address all aspects required to safely interconnect the new generation to WCID1’s existing electrical infrastructure.

Developers shall include an allowance in the Bid Summary for performing an Arc/Flash study for the facility that includes the installation of the new generation infrastructure.

A Developer proposing diesel fueled equipment shall:

- Include adequate fuel and DEF storage to accommodate 24 hours runtime at full load.
- Identify the optional cost associated with increasing the storage capacities to allow for 100 hours of full load operation.
- Include storage tanks that are UL-2085 listed and include remote level monitoring, leak detection, filtration and the connections required for periodic maintenance/cleaning.
- Include DEF storage tanks that are constructed of crosslinked polyethylene and include secondary containment, heating pads and insulation for maintaining chemical integrity.

Developers shall confirm that the proposed generating solution will be appropriately sized to address the motor start sequence described below:

	Start Sequence After Outage	Description	Operating Info	Size (hp)	Comments
Raw Water Pumps	1	RW-7 and RW-8	Base load 24/7	600 ea	Both are on VFDs
	2	RW-3	Started by operator based on load	350	Soft start
	4	RW-10 and RW-11	Started by operator based on load	600 ea	Both are across the line start
	3	RW-6	Started by operator based on load	350	Across the line start
High Service Pumps	9	HSP-12	Started by operator based on load	900	Soft start
	10	HSP-13 and HSP-14	Started by operator based on load	1250 ea	Soft start
	6	HSP-3 and HSP-4	Started by operator based on load	300 ea	Soft start
	7	HSP-5	Started by operator based on load	300	Soft start
	8	HSP-6	Started by operator based on load	400	Soft start
	5	HSP-15 and HSP-16	Base Load 24/7	1250 ea	Both are on VFDs

The generators will be installed outdoors and must include appropriate weather protected housings/enclosures.

All medium voltage power cable shall be 5 KV shielded MV-105, suitable for wet or dry applications installed in conduit per NEC.

Developers shall include detail specifications for any transformers used in the project. All transformers shall be new, however refurbished transformers that include the required warranty coverage will be considered (use voluntary alternate offer section of proposal).

Each Developer’s design/build process shall include provisions for submittal drawings for review/approval, as well as a full set of as-built drawings showing the completed installation.

Given the difficulty of providing a fixed cost proposal for some of the components of the Project, Developers may submit allowances in the Bid Summary for:

- Geotechnical Site work and civil construction required for the project

- Oncor interconnection permitting costs
- All required state and local air permitting costs
- All required municipal or county permitting fees
- Arc/Flash study of as-built system

Each Developer shall describe their plan for testing/commissioning of the completed installation.

Each Developer shall propose their standard/base sound attenuation package as well as an option to upgrade to an improved sound attenuation package.

Each Developer shall propose an offsite monitoring service that will allow monitoring and alerting for fuel/DEF levels (if applicable), engine alarms, real time power monitoring and remote start/stop dispatch.

Each Developer shall propose an option for a comprehensive maintenance services package that will cover the first 10 years of operation.

Each Developer shall propose a standard warranty of not less than 5 years that covers all parts and labor required as well as an option to extend the standard warranty to a full 10 years of parts and labor coverage.

9. Proposal Requirements

Each proposal shall be structured with numbered sections as follows:

1. Company legal name, address, DUNS number and background on the company (Word or PDF format, 2 pages maximum)
2. A brief description of Developer's qualifications to perform the project
3. Three (3) examples of similar projects, preferably in the utility district space (Word or PDF format, 6 pages maximum)
4. References for at least three (3) clients familiar with your firm's work (Word or PDF format, 1 page maximum)
5. Technology information (Word or PDF format, 20 pages maximum)
 - what technologies will your firm deploy in order to meet the RFP requirements?
 - provide detailed information on the design and specifications of any step up or step down transformers included in the proposed solution
 - include pictures of the generating technology offered
 - engine/generator configuration including count and sizes proposed
 - detailed engine generator specifications including fuel type, prime rated output in KW and KVA, standby rated output in KW and KVA, native generator output voltage/phase, rated power factor (lagging)
 - fuel consumption per hour at 25%, 50% and 100% load
 - if applicable, DEF consumption per hour at 25%, 50% and 100% load

- how will the solution proposed impact the District’s motor starting requirements including total harmonic distortion associated with the District’s existing VFDs?
 - please attach the proposed electrical single line diagram showing both the emergency and non-emergency configurations (if different)
6. A summary of the Developer’s plan for testing and commissioning of the completed project (Word or PDF format, 2 pages maximum)
 7. A completed Bid Summary in EXCEL format (attach separately)
 8. Exceptions to the RFP requirements (Word or PDF format, 1 page maximum)
 9. Voluntary alternate offers including the associated cost/benefit that might improve the life cycle value of the installation (Word or PDF format)
 10. A summary of sound attenuation options available (Word or PDF format, 2 pages maximum)
 11. A summary of remote monitoring capabilities (Word or PDF format, 2 pages maximum)
 12. A summary of maintenance services options and costs (Word or PDF format, 2 pages maximum)
 13. A summary of standard and extended warranty options and costs (Word or PDF format, 2 pages maximum)
 14. A project timeline – high level milestones including design, permitting, long lead procurement items, construction, testing/commissioning and startup (Word or PDF format, 2 pages maximum)
 15. A sample Design/Build contract (Word format)
 16. A summary of optional financed or leased structures that would minimize or eliminate WCID1’s upfront capital requirements. Please provide estimated cash flows for each option assuming fully approved credit, and the value that could be derived from 4CP cost avoidance as well as the other grid reliability programs offered by ERCOT and/or Oncor.