

City of Castroville
703 Paris St.
Castroville, TX 78009



Public Works Office
(830) 931-4090

10/31/2024

Mr. Fernando Perez, BAAS TEM, CFM
Regional Mitigation Coordinator, Region 6
Texas Division of Emergency Management
1033 LaPosada Dr., Suite 300
Austin, Texas 78752

RE: City of Castroville Water Plants and Sanitary Sewer Lift Stations Generators Response

REF: Tech Request, Questions 1 and 2

Dear Mr. Perez,

I hope this message finds you well.

It has been over two years since our last review of this project, and several aspects of the original request have changed. The cost of generators has increased, and lead times have extended significantly. Notable updates include the successful installation of two generators from the original application and the looping of several water systems, resulting in the same population being served in some cases. As mentioned in the request for information, we have reduced the number of generators at the airport site from two to one.

We have prepared an updated Scope of Work that reflects the revised costs and lead times. In other cases, such as Koenig Park, which is an event property and is typically occupied on weekends, the population served varies. These measures are in preparation for emergency events and potential power losses. However, this does not eliminate the need for generator redundancy as required by the state.

The updated information now includes consistent latitude and longitude labeling of the proposed generators with automatic transfer switches included with spill prevention measures, which are appropriate to maintain continuous power during outages or disaster events. Please refer to the attached cost sheet prepared by a professional engineer for details and location of each site.

Thank you for your attention to this matter.

Sincerely,

John Gomez
Public Works Director
Cc: Scott Dixon, Janic e M. Gonzalez



BIG STATE ELECTRIC POWER DISTRIBUTION ENGINEERING

8923 Aero St.

SAN ANTONIO TX 78217

TBPE FIRM REGISTRATION #16549

DATE: 23 OCT, 2024
PROJECT NO: BSE-2411
PROJECT: CASTROVILLE GENERATORS

To Whom It May Concern,

This certification is intended to confirm that any/all documentation provided by Big State Electric, Ltd. to the City Of Castroville for the purposes of the subject project is under the creation, or under review of a Licensed Professional Engineer. Furthermore, Big State Electric, Ltd. is a Registered Engineering Firm, Firm No. F16549.

Shane Custer, P.E.

License Number - 115593

Big State Electric, Ltd.

(210) 735-1051



October 30, 2024

Scope of Work: Installation of Backup Generators for Water Well Plants and Sanitary Sewer Lift Stations (response)

Ref: Tech Request, Question 4

1. Project Overview

This project involves the installation of backup generators at water well plants and sanitary sewer lift stations to ensure continuous operation during power outages or disaster events. The backup generators will provide redundant reliable power to critical infrastructure, preventing service interruptions and maintaining public health and safety.

2. Objectives

- Ensure uninterrupted operation of water well plants and sanitary sewer lift stations during power outages.
- Enhance the reliability and resilience of the water and wastewater systems as required.
- Comply with regulatory requirements and industry standards for emergency power systems.

3. Scope of Work

The scope of work includes, but is not limited to, the following tasks:

3.1 Site Assessment and Preparation

- Conduct a detailed site assessment to determine the optimal location for generator installation. (complete)
- Prepare the site, including any necessary excavation, grading, and foundation work. (pending approval)
- Ensure compliance with environmental and safety regulations, including fuel storage and spill containment measures. (complete, included within the generator)

3.2 Generator Selection and Procurement

- Select appropriate generators based on the power requirements of the water well plants and sanitary sewer lift stations. (Professionally engineered and complete)
- Procure generators, ensuring they meet all technical specifications and regulatory standards. (procurement pending approval, professional engineered sizing complete)

3.3 Electrical and Mechanical Installation

- Install generators, including all necessary electrical connections, transfer switches, and control panels. (pending approval, see updated cost sheet)
- Install 6' barbed wire security fencing around site. On separate budget / project
- Integrate generators with existing electrical systems to ensure seamless operation during power outages. (pending approval)
- Install fuel supply for start-up and testing only, including tanks, piping, and safety features. (pending approval)

3.4 Testing and Commissioning

- Conduct thorough testing of the installed generators to ensure proper operation under load conditions. (pending installation and inspection approval by engineer)
- Perform commissioning activities, including system checks, performance verification, and troubleshooting. (pending installation and inspection approval)
- Provide training to operational staff on the use and maintenance of backup generators. (pending installation and engineer approval)

3.5 Documentation and Compliance

- Prepare and submit all necessary documentation, including as-built drawings, operation manuals, and maintenance schedules. (pending installation approval)
- Ensure compliance with all relevant local, state, and federal regulations. (pending installation approval)

4. Justification for Backup Generators

Backup generators are essential for the following reasons:

- **Reliability:** They ensure continuous operation of critical infrastructure, preventing service disruptions during power outages.
- **Public Health and Safety:** Maintaining water supply and wastewater management is crucial for public health, especially during emergencies.
- **Regulatory Compliance:** Many regulations require backup power systems for essential services to prevent environmental contamination and health hazards.
- **Operational Efficiency:** Generators help avoid costly downtime and potential damage to equipment caused by power interruptions.

5. Project Timeline

- **Site Assessment and Preparation:** once approved and equipment procured 2-4 weeks
- **Generator Selection and Procurement:** Generators have been selected, lead-times currently 38-44 weeks out after approval
- **Electrical and Mechanical Installation:** 6-8 weeks
- **Testing and Commissioning:** 2-3 weeks
- **Documentation and Compliance:** Ongoing throughout the project

6. Budget Estimate

A detailed budget estimate has been provided on the specific requirements and site locations. The budget, prepared by professional engineer, includes cost for equipment, labor, materials, and any necessary permits.

City of Castroville
703 Paris St.
Castroville, TX 78009



Public Works Office
(830) 931-4090

31 October 2024

Mr. Fernando Perez, BAAS TEM, CFM
Regional Mitigation Coordinator, Region 6
Texas Division of Emergency Management
1033 LaPosada Dr., Suite 300
Austin, Texas 78752

REF: Article 1. Generators I.2

Dear Mr. Perez:

The City of Castroville and its Public Works Department will maintain all seven generators monthly as needed. However, the city may also engage professional services from outside contractors for additional maintenance services to support the Castroville Public Works Department. The maintenance costs listed below are based on past invoices for similar sized generators. Listed below are the locations and additional information for the proposed generators.

Location	Address	Latitude – Longitude	Population	Yearly Maintenance Cost
City Hall (Diesel Fuel)	1209 Fiorella St,	29.357274, - 98.876129	3933	\$2,500
*Well #3 (Diesel Fuel)	1615 Athens St.	29.354305, - 98.887095	3933 (looped)	\$3,500
*Well #2 (Diesel Fuel)	303 London St.	29.357274, - 98.876129	3933 (looped)	\$3,500
*Cross Hill Tank (Natural Gas),	1418 London	29.347604 - 98.884531	3933 (looped)	\$2,500
Riverside Lift Station (Diesel Fuel)	FM 471	29.360192 - 98.874162	100	\$500
#Airport Well (Diesel Fuel)	10020 Airport Rd.	29.349331, - 98.852321	3 -5,000	\$2,500
+Koenig Park Lift Station (Diesel Fuel),	San Jacinto (between Vienna & Berlin)	29.361864 - 98.881281	3 -10,000	\$500


*These sites all serve the same population and are looped together

#The Airport Well serves our municipal airport, and our youth baseball fields, both of which have fluctuating population based on leases and events

+Koenig Park lift station serves a facility that provides space for daily use plus small events to very large events. The population using the utilities expands from 3 to 10,000 plus based on the event.

If you have any questions, please contact me directly at 830.931.3090 (office) or 210.287.0606 (cell). You may also contact our grant project coordinator, Ms. Janice M. Gonzalez, at 210.960.4340, ext . 102 (office) or 210.326.4279 (cell). Thank you for your assistance.

Respectfully,

A handwritten signature in blue ink, appearing to read "John Gomez", is written over the word "Respectfully,".

John Gomez
Public Works Director
City of Castroville,
Texas

Cc: Scott Dixon, Janic e M. Gonzalez

GENERATOR LOCATIONS

- 1 - City Hall
- 2 - Well #3
- 3 - Well # 2
- 4 - Airport Well
- 5 - Cross Hill Tank
- 6 - Riverside Lift Station
- 7 - Koenig Lift Station





SITE 1 - City Hall
29.357274, -98.876129

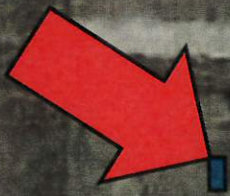


SITE 2 - Well #3
29.354305, -98.887095



SITE 3 - Well # 2
29.357274, -98.876129

SITE 4 - Airport Well
29.349331, -98.852321



SITE 5 - Cross Hill Tank
29.347604, -98.884531





SITE 6 - Riverside Lift Station
29.360192, -98.874162



SITE 7 - Koenig Lift Station
29.361864, -98.881281