This brief is being provided to inform the board, staff and public of the details of an agenda item that requires no action from the board. The President of the Board will provide board members, staff, and the public the opportunity to ask questions about this topic when this agenda item is announced.

**Date:** April 19, 2021

**Originator:** Rich McLaughlin

**Agenda Topic Title:** CalOES Power Resilience Grant Update

**Purpose of Brief:** To update the Board of Directors on the status of the CalOES Power Resilience Grand

**Supporting Documents Included:**  Tentative Schedule and Milestones

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1. **Agenda Topic Brief or Update:**

On 12 March, the CSD received notification that the Governor’s Office of Emergency Services had allocated funds in the amount of $242,714 to the GMCSD for District Power Resilience upgrades.

On 16 March we received a follow notification stating that “Checks will be mailed out shortly for the full award amount. There is no reimbursement process for this funding. Additionally, instructions on the progress report will come at a later date.“

On 8 April we received clarifying information regarding guidelines for the procurement of generators and connections and assurances that activities directly related to generators and generator connections are acceptable items/activities under this program.

As of 13 April, we have not yet received funding however I’ve been notified that we have a package in the mail which sounds like it might be our funding package. .

1. **Anticipated Impacts to the District -** (*Consider financial impact, change in procedures, customer, and staff communication*):

This grant provides for a significant infrastructure upgrade in providing clean emitting backup generators for our domestic water distribution system. The upgrades will ensure uninterrupted delivery of water during any planned or unplanned power outage in the District.

1. **Anticipated Impacts to the Customer –** *Standby, Residential, Commercial***:**

Installation of generators and their associated propane tanks potentially represents substantial construction impact over the 2021 summer season at locations throughout the District, however we do not anticipate any major disruption to either water distribution or traffic flows. Prior to starting each installation, the District will notify residents of what to expect in the form of a CSD Bulletin

**Next Steps for this Topic**:

While awaiting funding, District staff are preparing for grant execution with the following evolving schedule and milestones:

Concept of Operations:

Replace existing diesel Generators at all booster stations – sell surplus diesel generators

Outfit all wells with connections for our portable Generators – wells only need to keep tanks full, they do not need to run full time, and typically only one well at a time. In an emergency we will move portable generator to required well house. My leave a diesel generator in Well 29 as a backup in the event of compound emergency.

Booster station pumps run on demand (low system pressure in that zone). New backup generators will be set to run when pump needs power. While backup propane tanks are sized to provide 48 hour run time, the fact that pumps do not run consistently means that we will see run times well in excess of 48 hours.

With this plan we expect to have a surplus at the end of GENSET installation. Surplus dollars will allow a number of options. Providing SCADA control capability is included in grant scope and is currently my first priority. Option 2 would be to use dollars to put a backup GENSET at Well 33.

Preliminary Schedule

April 2021:

* Survey all sites for location and placement of tanks and generator sets (GENSETS).
* Working with engineering to specify GENSET requirements / propane tank options / pump modifications.
* GENSETS to be of exterior, free standing design on concrete pads (similar to widely advertised GENERAC units)
* Due to start-up amperage draw, generators will need to be of larger capacity than original specified.
* In at least one instance, pump size/generator tradeoffs favor replacing a booster pump in order to downsize the generator and achieve cost savings.
* Preparing request for quotes for Generators and propane tanks. Three providers each. Expectation of some discount pricing due to quantity buy.
* Generator RFQ to include connections and service options.
* Tank quote for purchased rather than leased tanks. Buried tanks vs above ground tanks to reduce visual blight
* To meet preliminary pricing, phase 1 involves placing GENSETS at all 7 booster stations which are critical to providing water service to all customers in the event of a power outage
* Phase II may include placing a GENSET at Well 33. All wells to be equipped with hookups to all use of the District’s portable GENSET as a backup. Normal operations rarely require more than one well online at any time.
* District will use our field staff to install generator concrete pads, install conduit, and bury propane tanks.
* Use of District labor will relieve pressure on both 2020 and 2021 water and sewer labor budgets

May 2021: (Assuming funding is received)

* Open bids for GENSETS and propane tanks
* Coordinate with county for required GENSET/Propane installation permits
* Begin planning for GENSET pad installation
* Upon settling on the winning bid, provide GENSET specification and tank specs to engineering for final review and develop specific install specifications.
* Coordinate construction plans with the HOA Maintenance Manger to limit impact to District residents

June 2021:

* Construct GENSET pads at each location
* Excavate for propane tanks
* Based on delivery schedule, set, and backfill tanks
* Procure conduit and fittings to connect GENSETS to pump stations

July 2021

* Continue GENSET pad construction
* Based on delivery schedule and pad completion, set and secure GENSETS
* With GENSETS installed, run electrical conduit to pump stations
* Install propane lines between tanks and GENSETs
* Remove existing diesel Generators

Aug 2021

* Coordinate with selected propane provider for tank connections
* Run electrical connections between GENSET and pump house
* Connect to existing power transfer switches
* Install on-demand pressure switches to call for power

Sept 2021

* Complete installation and system checks

Preliminary Budget - attached