

RWQCB TOUR: CLEAN & GREEN PROJECT



THURSDAY, MAY 18, 2023



**WEST COUNTY
WASTEWATER**



AGENDA



Battery Energy Storage System (BESS)



Design and Construction Update



Key Upcoming Dates



Questions

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BESS (BATTERY)

BACKGROUND

- Power Outages are on the rise.
 - From 2018 – 2019:
 - Black out events increased 23%
 - Utility customers impacted by outages increased by 50%
 - Public Safety Power Shutoffs (PSPS) also increased
- Communities under pressure to adapt
- Funding for energy resiliency is available
 - Self-Generation Incentive Program (SGIP)
 - Inflation Reduction Act (IRA)

TOTAL BLACKOUTS

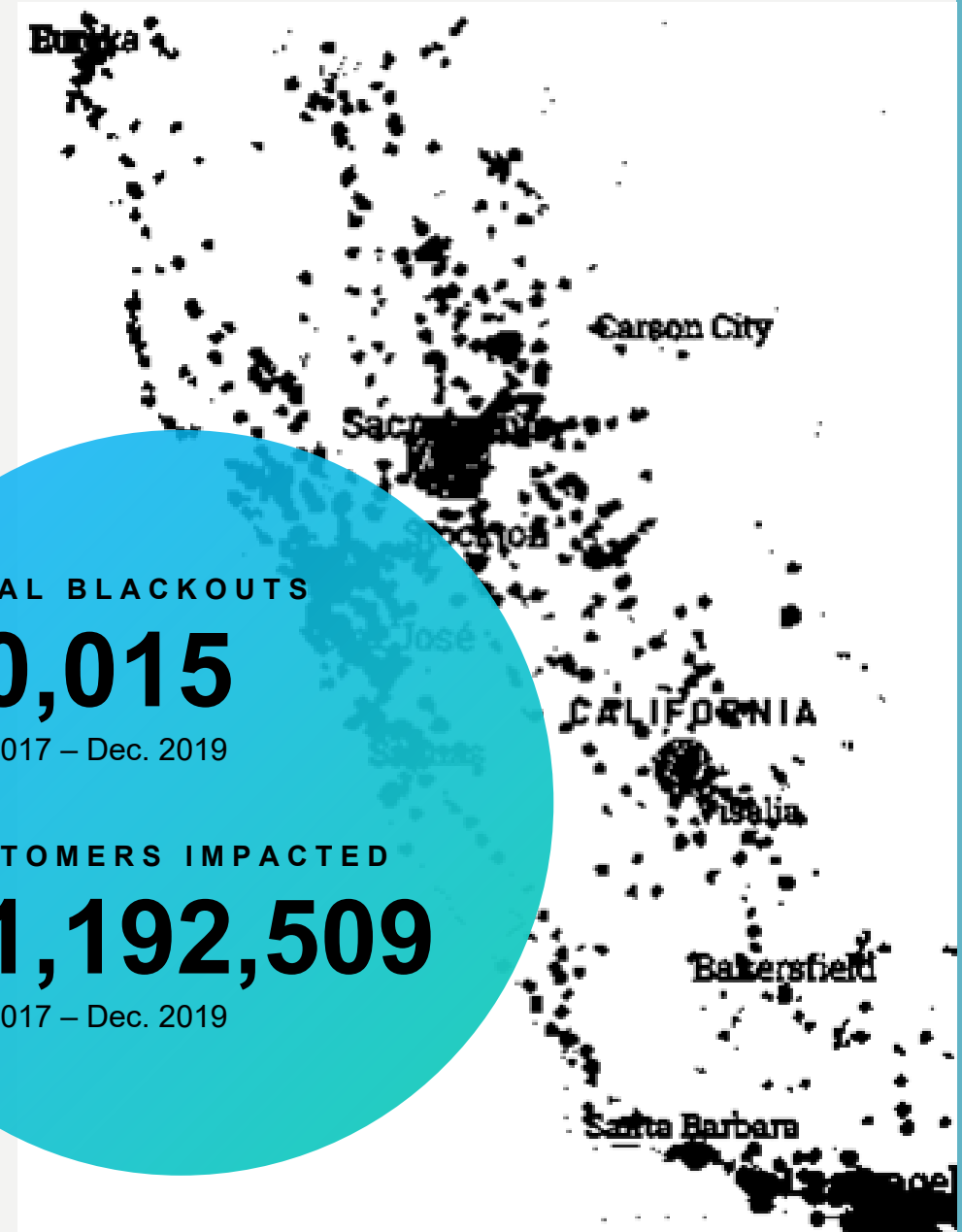
50,015

Oct. 2017 – Dec. 2019

CUSTOMERS IMPACTED

51,192,509

Oct. 2017 – Dec. 2019



ENGIE PROPOSAL TO ADD RESILIENCY

- ENGIE provided proposal to add resiliency facilities to the CGP, including:
 - Battery Energy Storage System (BESS)
 - Microgrid controller
 - Transformer
- Proposed facilities would provide backup power to major energy facilities at the WQRRP:
 - New cogeneration system
 - New solar photovoltaic (PV)
 - Existing solar (PV)
 - Existing diesel generator

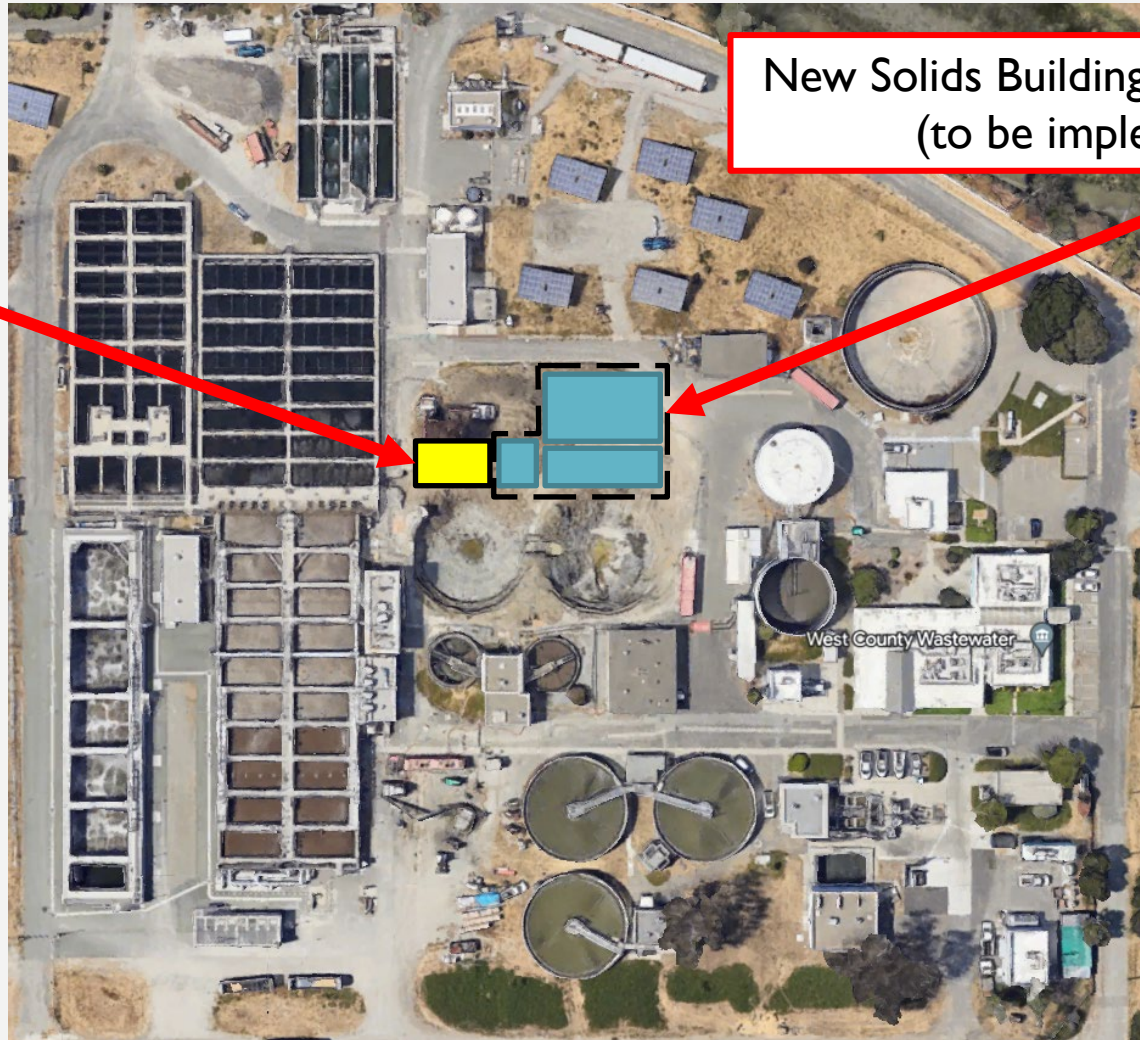


Proposal includes a Tesla Battery that will provide backup power to WQRRP facilities.

PROPOSED SITE LAYOUT

BESS would be located adjacent to the new Solids Building

New Solids Building, Cogeneration Facility, and Flare (to be implemented as part of CGP)



BENEFITS

- Increased power resiliency and reliability during planned/unplanned utility power outages
 - Uninterrupted plant operations
 - Less disruption for WCW O&M staff
 - Enables cogeneration and solar PV systems to operate during power outage
- Reduction in GHG emissions
- Reduction of annual utility power cost
 - Battery will be used as energy source during peak PG&E hours to reduce PG&E energy usage/cost
- Be a community leader for sustainability and resiliency

CLEAN & GREEN WCW TEAM



— WEST COUNTY
WASTEWATER

CLEAN & GREEN PROJECT



— WEST COUNTY
WASTEWATER



KENWOOD ENERGY



QUESTIONS?

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DESIGN AND CONSTRUCTION UPDATE

OVERALL PROJECT SCHEDULE

Process Area	Work Not Started	Work In Progress	Work Complete
Project Wide			Notice to Proceed Dec 21
			Construction Start Mar 22
		BAAQMD Permit (Q2/Q3 2023)	
		Design (Q2/Q3 2023)	
		Construction (Q2 2024)	
		Startup, Testing & Commissioning (Q2 24)	
	Construction End May 24		
	Final Completion Aug 24		

NEW EQ BASIN IN CONSTRUCTION



Construction of New EQ Basin started in October 2022



Sluice gate between existing EQ Basin I and new EQ Basin 4

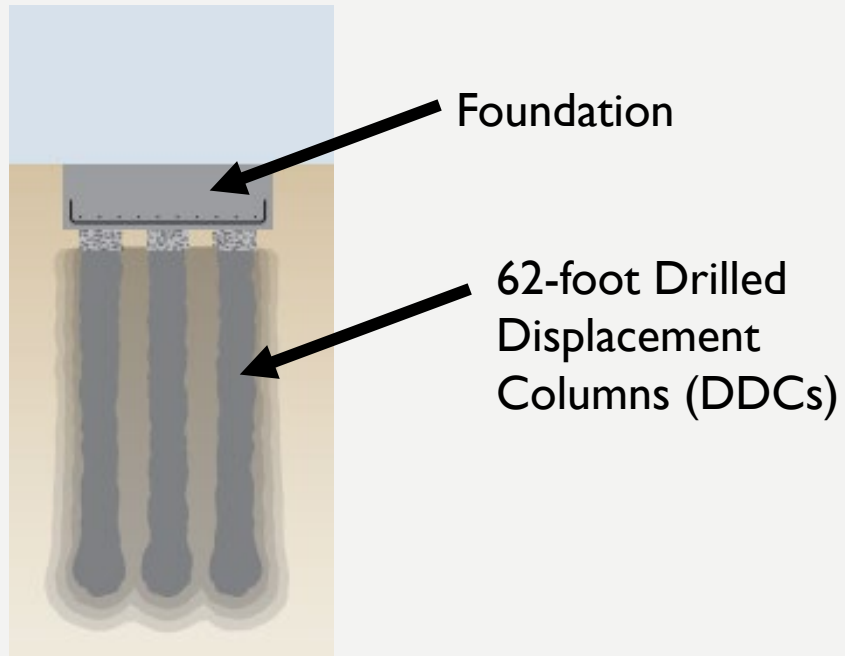
NEW AERATION BLOWER SUCCESSFULLY STARTED-UP

- New high-efficiency aeration blower:
 - Installed: 2/21
 - O&M Staff Training Completed: 3/1 and 3/8
 - Target for beneficial use: 4/19
- WCW/ENGIE coordinated closely to have seamless operations during shut-downs and start-ups required
- New blower will reduce aeration energy demand



Starting the blower for the first time

DIGESTERS & SOLIDS BUILDING FOUNDATIONS INCLUDE DRILLED DISPLACEMENT COLUMNS



Structure		Total DDCs Installed
New Digesters		194
New Solids Building		88



Drilling and placing grout for DDC for digester foundation

THICKENING EQUIPMENT HAS BEEN PROCURED



Rotary drum thickeners (RDTs) have been procured and are on site.

- Anticipated Installation: August 2023
- Anticipated Start-up: November 2023



- RDTs will be installed in the existing Thickening Building
- Once implemented, RDTs will reduce monthly solids dewatering costs

LIGHTING UPGRADES COMPLETED AT THE WQRRP



Lighting upgrades were completed in April 2023



QUESTIONS?

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END