



Placer County Air Pollution Control District

Update on State Energy Projects and Public Safety Power Shutoff

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PRESENTATION OVERVIEW

- Governor's Emergency Proclamation
 - Roseville State Power Augmentation Project
 - Electricity Demand Response Programs and Backup Power Generation
 - Climate Heat Impact Response Program
- Public Safety Power Shutoff Activities



EMERGENCY PROCLAMATION

- Signed on July 30th, 2021
- Directs state agencies (DWR, CEC, & CPUC) to accelerate plans for the construction, procurement, and rapid deployment of energy systems
 - Expedites CEC's licensing of new electricity generation
- Funds a new energy load reduction incentive program
 - Suspends state air pollution regulations during CAISO declared "Grid Warnings" or "Grid Emergencies"
- Directs CARB to develop and implement the Climate Heat Impact Response Program (CHIRP)





ROSEVILLE STATE POWER AUGMENTATION PROJECT

- Construction and commissioning of 2 x GE TM2500 natural gas combustion turbine generators (CTGs) at Roseville Energy Park

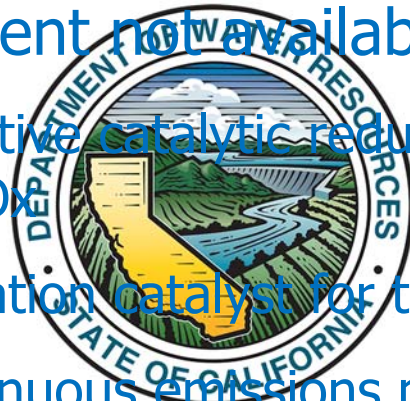


- Each CTG is rated at 30 MW
- Total Capacity at REP increased to 220 MW



ROSEVILLE STATE POWER AUGMENTATION PROJECT

- City of Roseville submitted an Authority to Construct permit application to the District for the new CTGs at Roseville Energy Park
- Post combustion control and emissions monitoring equipment not available for installation includes:

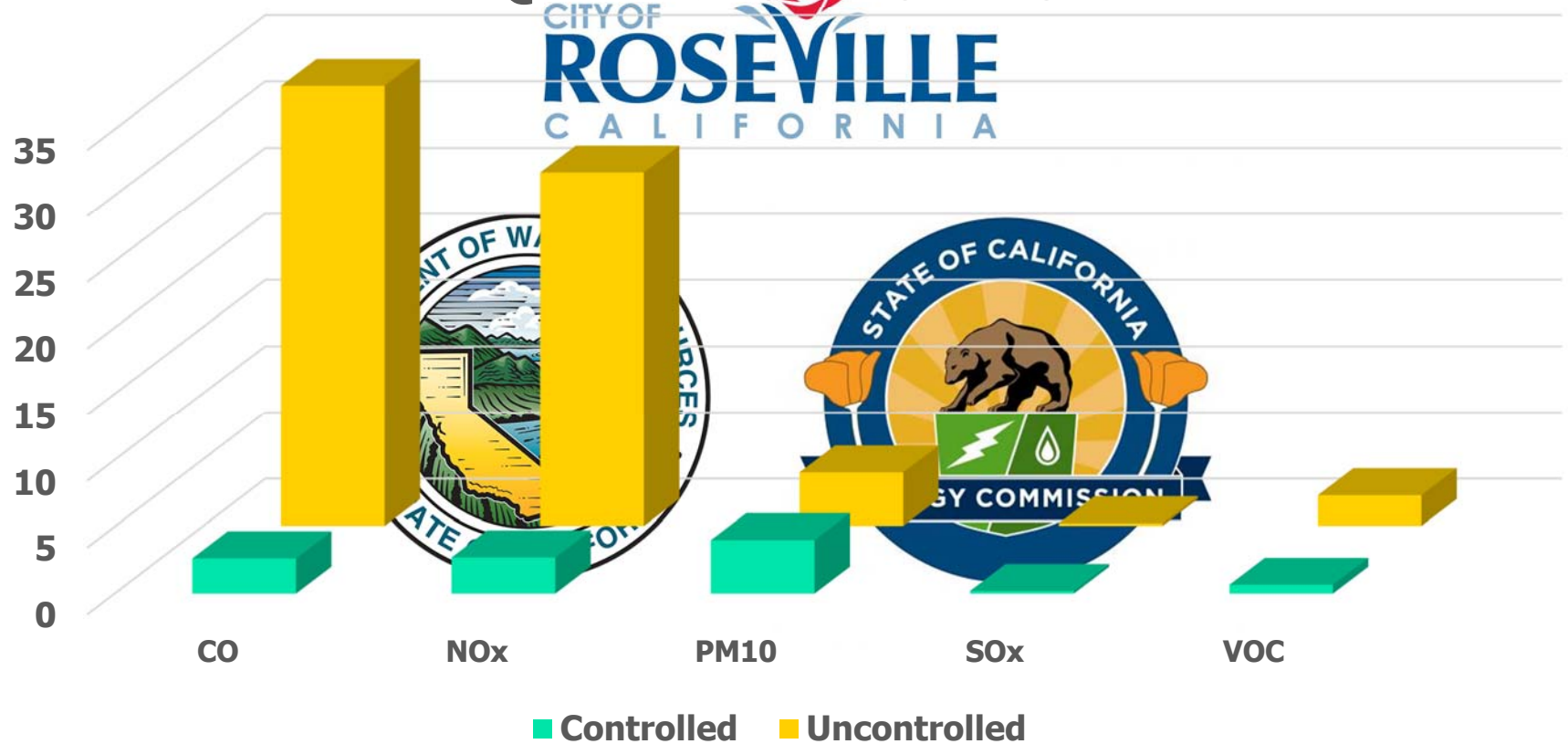


- Selective catalytic reduction (SCR) system for the reduction of NO_x
- Oxidation catalyst for the reduction of CO and VOCs
- Continuous emissions monitoring system (CEMS)
- Unavailable until 3rd quarter of 2022 (possibly earlier)



ROSEVILLE STATE POWER AUGMENTATION PROJECT

GE TM2500 CTG Hourly Emissions (lbs)
@ 100% Load Conditions





ROSEVILLE STATE POWER AUGMENTATION PROJECT

- The District's permitting and New Source Review (NSR) provisions include federal elements required by the Clean Air Act
- The Governor's emergency proclamation does not have the authority to waive the federal components of the District's program:
 - Best Available Control Technology (BACT)
 - New Source Performance Standards
 - Continuous Emissions Monitoring (CEM) System





ROSEVILLE STATE POWER AUGMENTATION PROJECT

- CAISO submitted a petition for an Emergency Order pursuant to Section 202(c) of the Federal Power Act
- U.S. DOE issued the order on September 10th, for a period of 60 days, with operation allowed under the following circumstances:
 - During an “Energy Emergency Alert Level 2”
 - Transmission emergency that requires operation of the CTGs to prevent or mitigate load curtailment
 - Testing directed by the CAISO or synchronization of the CTGs during periods of lowest electric demand
- District completed review and issued the Authority to Construct permits on September 13th



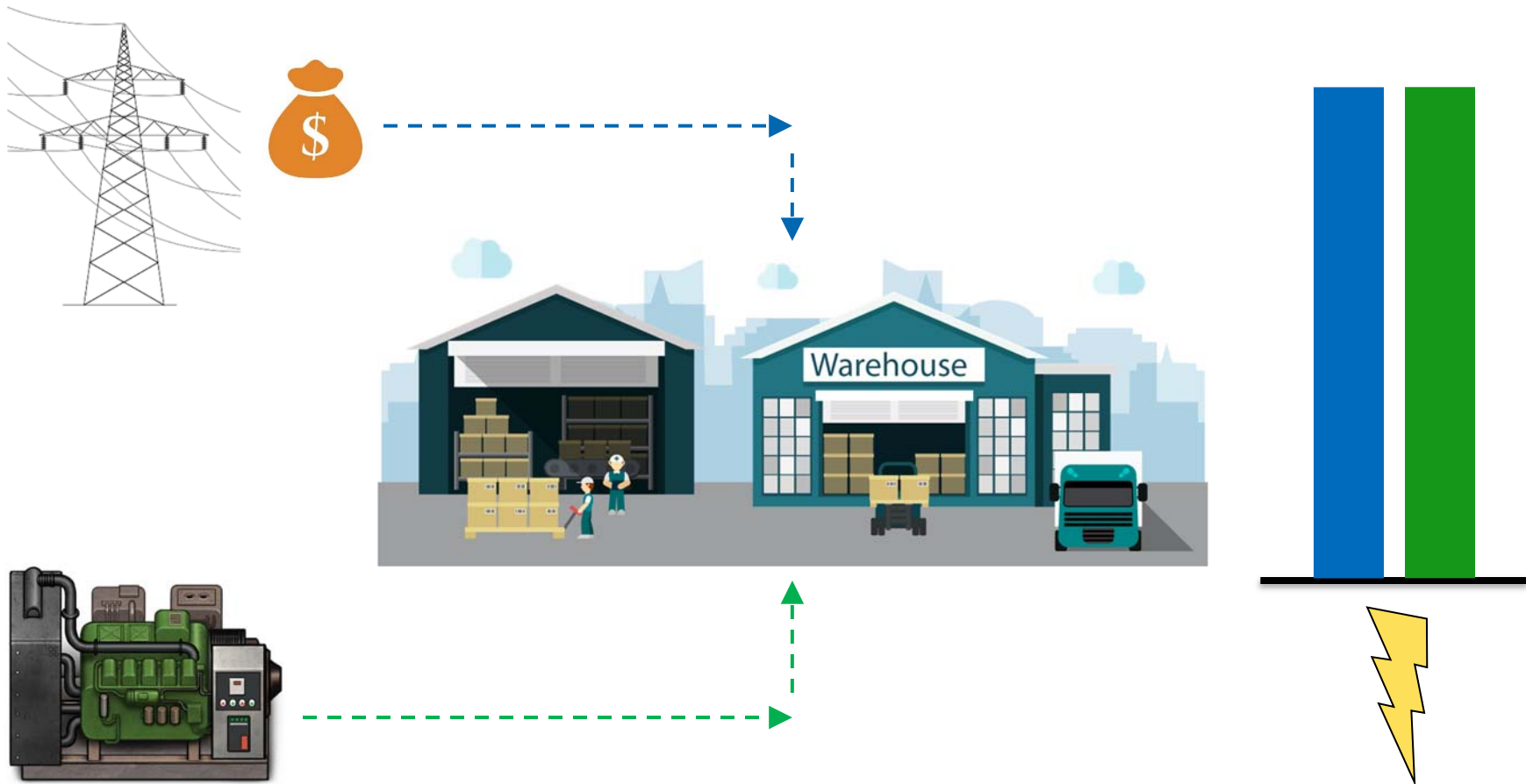


BACKUP GENERATORS AND ELECTRICITY DEMAND RESPONSE

- Creation of new State-funded demand response incentive program
- Participants will be eligible for \$2.00 per kW-hour of reduced electrical demand during “Grid Warnings” and “Grid Emergencies”
- Diesel generator regulations are temporarily amended to allow for the *proactive* operation of emergency generators to reduce demand on the grid
- Use of emergency generator engines are normally only allowed during “emergency events” after line power has been lost



BACKUP GENERATORS AND ELECTRICITY DEMAND RESPONSE





CLIMATE HEAT IMPACT RESPONSE PROGRAM (CHIRP)

- Activities:
 - Quantify emissions from the various electricity generating sources which operated under the shielding of the Proclamation
 - Provide the impacted communities opportunity for input
 - Establish an appropriate cost-effectiveness threshold for pollutants which were emitted
 - Provide monetary support from State Government funds
 - Promptly implement the selected mitigation plans and projects
- Preliminary program framework will be presented to the CARB Board on November 19th





PUBLIC SAFETY POWER SHUTOFF (PSPS) UPDATES

- Working with PG&E to better understand and reduce the impacts of diesel generators during PSPS events
- Community Resource Center diesel generators
 - Permit applications received for 5 locations
 - Temporary hubs established for community support during PSPS events
 - Restrooms, handwashing stations, device charging, Wi-Fi
 - Generally smaller engines (65 – 175 bhp) ranging from 25 kW to 50 kW in generating capacity



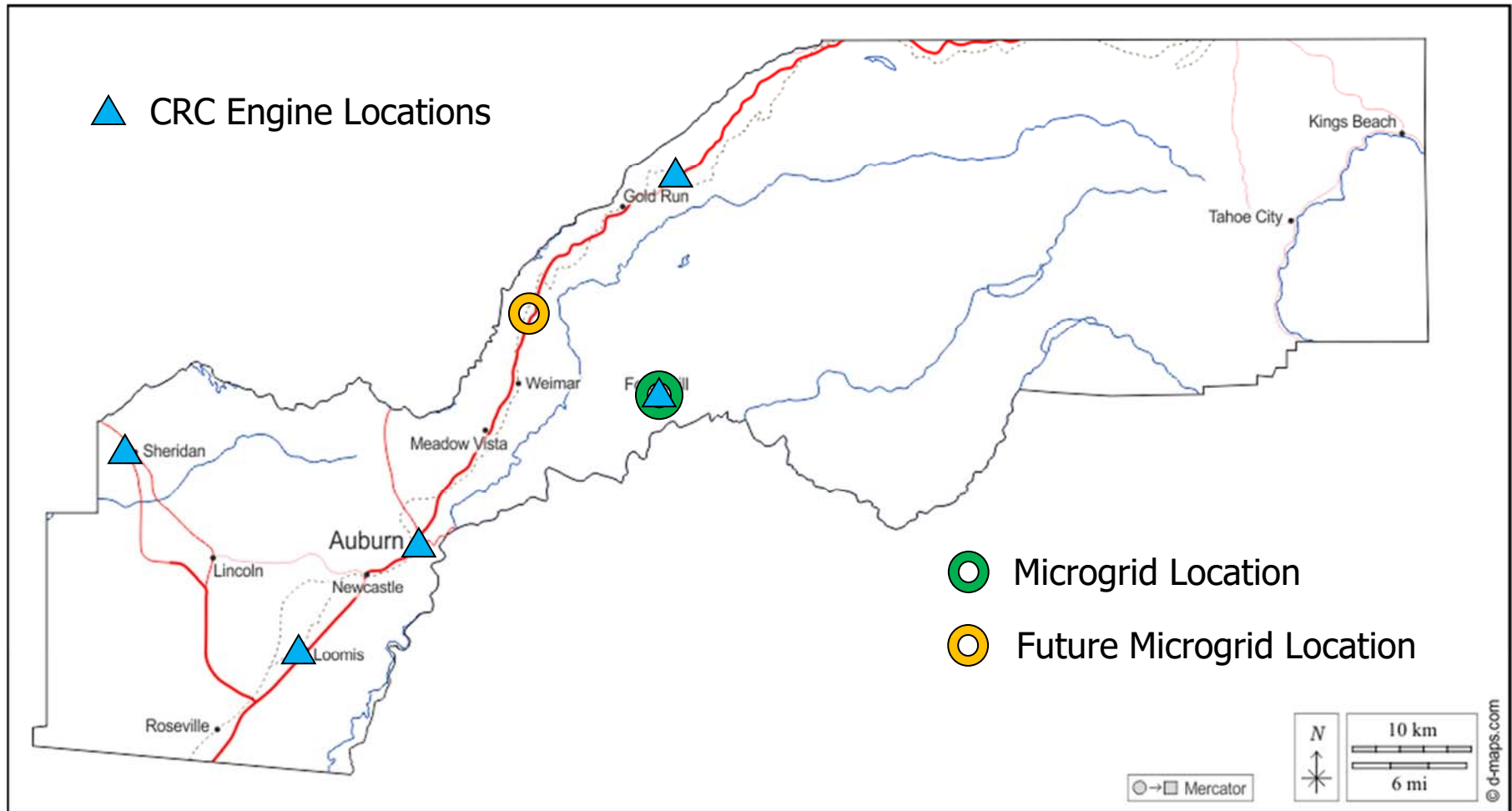
PUBLIC SAFETY POWER SHUTOFF (PSPS) UPDATES

- Microgrid diesel generators
 - Provides hyper-local power distribution to essential services
 - PG&E isolates and energizes portions of their distribution grid
 - Foresthill permit application has been received
 - 3 engines totaling 0.6 MW of power generation
 - Colfax permit is expected soon
 - Summit site possible as well
- Onsite generators > 50 hp require District permit if operate during multiple PSPS seasons





PUBLIC SAFETY POWER SHUTOFF (PSPS) UPDATES





NEXT STEPS

- Continue to permit new generators
- Monitoring activities from new emergency energy programs and PSPS activities
 - Request additional annual “throughput” data -- hours of operation and fuel usage -- from permit holders under these programs
- Quantify emissions to understand impacts from these programs and promote mitigation



QUESTIONS?

