

# Exhibit to Agenda Item #5

- a. Review of activities and performance for **CVFA** during the 2021 calendar year.
- b. Review of activities and performance for **SCA** during the 2021 calendar year.
- c. Review of activities and performance for **SFA** during the 2021 calendar year.
- d. Review of activities and performance for **SPA** during the 2021 calendar year.

Joint Annual Meetings of the Joint Powers Agencies (JPAs)

Thursday, April 21, 2022, immediately following the SMUD Board of Directors Meeting scheduled to begin at 5:30 p.m.

Virtual Meeting (online)

# JPA Consolidation Overview

- Authorization to transfer assets and obligations of Central Valley Financing Authority (CVFA), Sacramento Cogeneration Authority (SCA), and Sacramento Power Authority (SPA) to Sacramento Municipal Utility District Financing Authority (SFA) approved in October 2020
- Renaming and transfer of power plants to SFA effective November 1, 2021

Carson Ice-Gen Project (CVFA)

Procter & Gamble Cogeneration Project (SCA)

Campbell Cogeneration Project (SPA)

McClellan Power Plant (SPA)

Nov. 1, 2021

## SFA

Cosumnes Power Plant

Carson Power Plant

Procter & Gamble Power Plant

Campbell Power Plant

McClellan Power Plant

# Annual SMUD Thermal Load (Gigawatt hours)



# SFA – Campbell Power Plant & McClellan Power Plant (Previously SPA)



# SFA – Campbell Power Plant & McClellan Power Plant

- Campbell Power Plant:
  - 160 megawatt (MW) Combined Cycle facility
  - Siemens industrial frame gas turbine (V84.2)
- McClellan Gas Turbine:
  - 72 MW Simple Cycle Peaking Unit
  - General Electric (GE) industrial frame gas turbine (Frame 7E)
- Operated by EthosEnergy Power Plant Services



# SFA – Campbell Power Plant & McClellan Power Plant

Operational Performance Data:	2020	2021
Equivalent Forced Outage Factor (EFOF)	0.08%	0.512%
IEEE* Equivalent Availability (online or ready to run)	96.23%	94.22%
Overall Capacity Factor (based on 159.8 MW )	38.25%	44.49%

*\*Institute of Electrical and Electronics Engineers*

- ❑ There were no lost time or California Occupational Safety and Health Administration (OSHA)-recordable injuries at Campbell and McClellan during 2021.
- ❑ All permit and regulatory requirements were satisfactorily met during 2021.
- ❑ Worked with Regional San, CEC, and SMAQMD to utilize recycled water in the Campbell Power Plant cooling tower in 2022. This will save up to 1 million gallons a day of potable water.
- ❑ The McClellan Power Plant completed an upgrade to the Generation Protection Panel.

# SFA – Carson Power Plant (Previously CVFA)



# SFA - Carson Power Plant

- 99.9 MW Net Dependable Capacity (NDC):
  - 57.4 MW Cogeneration
  - 42.5 MW Simple Cycle Peaking Unit
- General Electric (GE) Aero Derivative Gas Turbines (LM6000)
- Operated by EthosEnergy Power Plant Services
- Commodities Agreement (expires in 2025)
  - Carson Power Plant sells steam and electricity to Regional San (*SRWTP – Sacramento Regional Wastewater Treatment Plant*)
  - Regional San sells digester gas to Carson Power Plant
  - Carson Power Plant cleans and sells the digester gas to SMUD
  - SMUD transfers the digester gas to Cosumnes Power Plant (CPP) for generation



# SFA - Carson Power Plant

Operational Performance Data:	2020	2021
Equivalent Forced Outage Factor (EFOF)	0.16%	0.06%
IEEE* Equivalent Availability (online or ready to run)	94.01%	87.20%
Combined Cycle Capacity Factor (based on 57.4 MW)	38.47%	39.47%
Peaker Capacity Factor (based on 42.5 MW)	1.84%	2.88%

*\*Institute of Electrical and Electronics Engineers*

- ❑ There were no lost time or California Occupational Safety and Health Administration (OSHA)-recordable injuries at the Carson Cogeneration Project during 2021.
- ❑ All permit and regulatory requirements were satisfactorily met during 2021.
- ❑ *Completed Steam Controls and Distributed Control System (DCS) upgrades.*

# SFA – Procter & Gamble Power Plant (Previously SCA)



# SFA – Procter & Gamble Power Plant

- 184 MW Total Capacity (164.3MW original Net Dependable Capacity):
  - 134 MW Cogeneration
  - 50 MW Simple Cycle Peaking Unit
- General Electric (GE) Aero Derivative Gas Turbines (LM6000)
- Operated by EthosEnergy Power Plant Services
- Steam Sales Agreement (Extended through 2028):
  - Procter & Gamble Oleo-chemicals
  - Factory converts palm kernel and coconut oils into alcohol esters
  - Agreement includes an off ramp with 3-year notice

# SFA – Procter & Gamble Power Plant

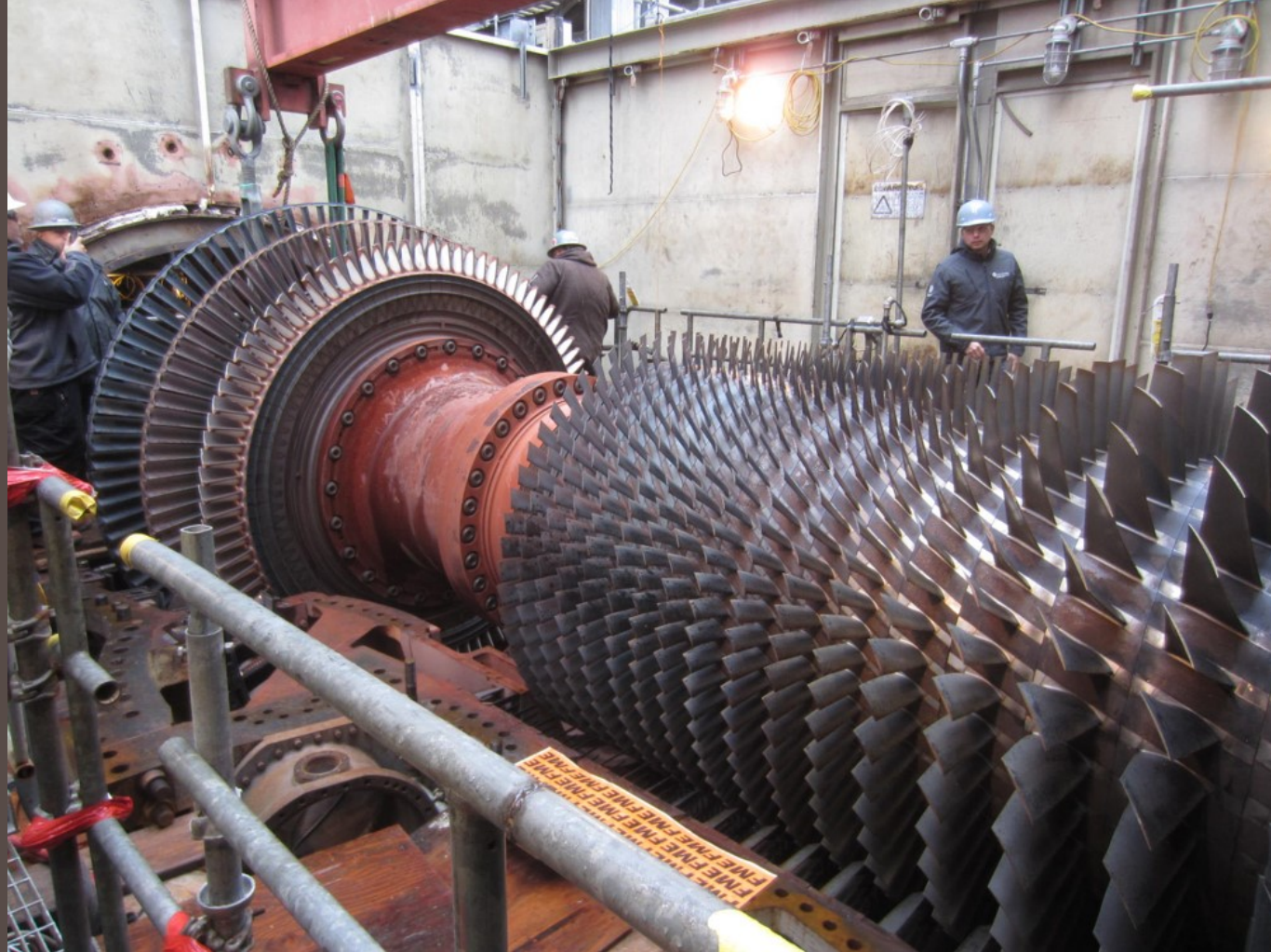
Operational Performance Data:	2020	2021
Equivalent Forced Outage Factor (EFOF)	0.14%	0.34%
IEEE* Equivalent Availability (online or ready to run)	93.21%	91.41%
Combined Cycle Capacity Factor (based on 120.3 MW)	64.32%	63.30%
Peaker Capacity Factor (based on 44 MW)	4.02%	3.70%

*\*Institute of Electrical and Electronics Engineers*

- ❑ There were no lost time or California Occupational Safety and Health Administration (OSHA)- recordable injuries at Procter & Gamble Power Plant during 2021.
- ❑ All permit and regulatory requirements were satisfactorily met during 2021.
- ❑ Installation of a new centrifugal chiller.
- ❑ Combustion Turbine Engine 1B overhaul; due to vibration issues the engine was shipped back to GE and installation is planned in 2022.



# SFA -- Cosumnes Power Plant (CPP)





# SFA Cosumnes Power Plant (CPP)

- 601 MW Combined Cycle 2x1 Power Plant
- General Electric (GE) Frame 7FA Gas Turbines (7241FA)
- Operated by EthosEnergy Power Plant Services
- CPP burns SMUD's renewable biogas
  - Digester gas from Regional San
  - Contracted Biogas from various sources
- Cleanest, most efficient use of renewable biogas

# SFA Cosumnes Power Plant (CPP)

Operational Performance Data:	2020	2021
Equivalent Forced Outage Factor (EFOF)	0.30%	0.06%
IEEE* Equivalent Availability (online or ready to run)	89.40%	93.50%
Overall Capacity Factor (based on 601 MW)	76.90%	82.00%

*\*Institute of Electrical and Electronics Engineers*

- ❑ There were no lost time or California Occupational Safety and Health Administration (OSHA)-recordable injuries at the Cosumnes Power Plant during 2021.
- ❑ All permit and regulatory requirements were satisfactorily met during 2021.
- ❑ Combustion Turbine Generator Cutsforth Shaft Grounding Device.
- ❑ Access Platform Improvements.