

# Exhibit to Agenda Item #4

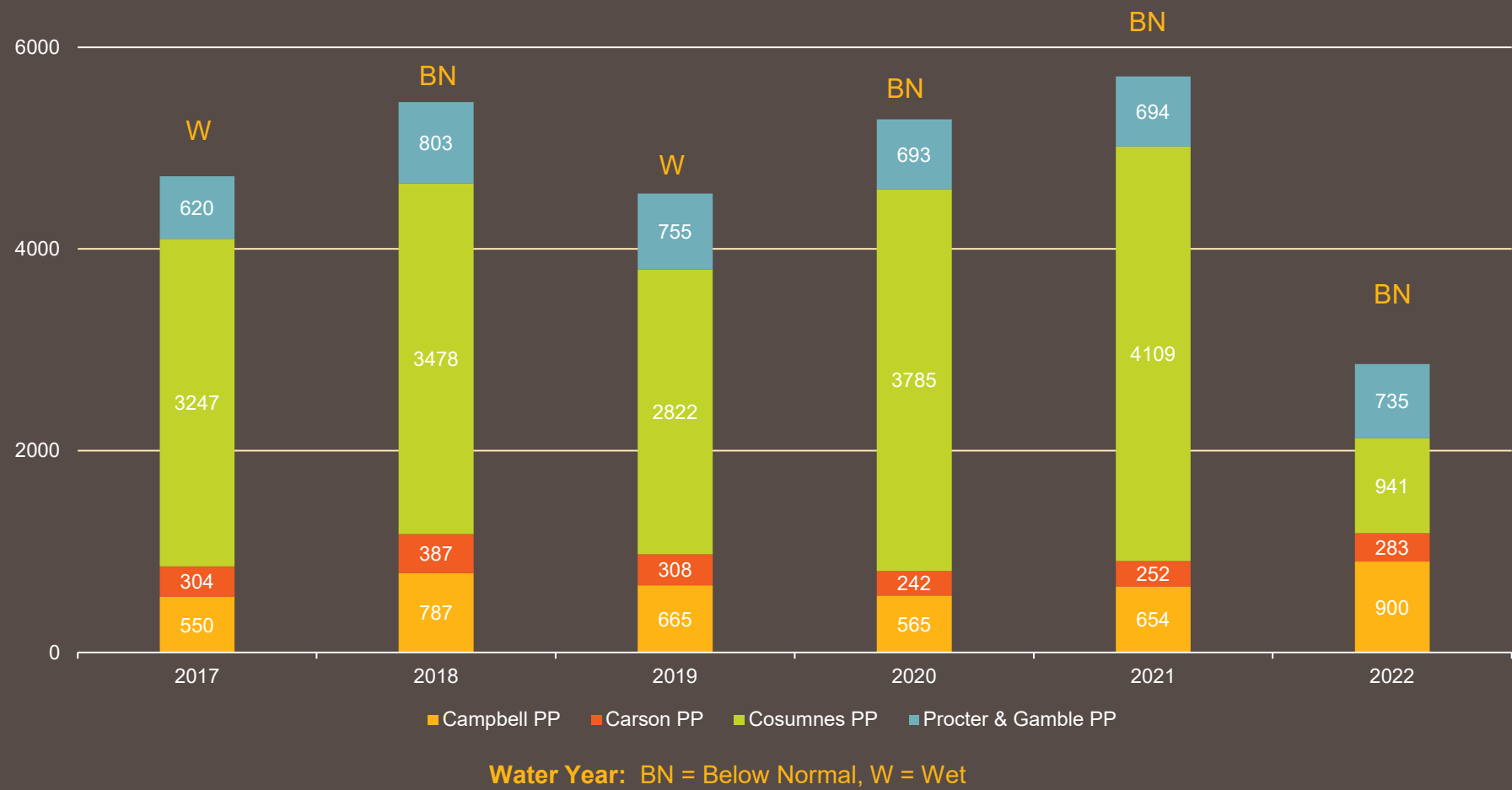
Review of activities and performance for SFA during the 2022 calendar year.

Joint Annual Meetings of the Joint Powers Authorities (JPAs)

Thursday, April 20, 2023, immediately following the SMUD Board of Directors Meeting scheduled to begin at 5:30 p.m.

Auditorium, SMUD Headquarters Building

# Annual SMUD Thermal Load (Gigawatt hours)



# SFA – Campbell Power Plant & McClellan Power Plant



# 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:

	2021	2022
Equivalent Forced Outage Factor (EFOF)	0.51%	0.10%
IEEE* Equivalent Availability (online or ready to run)	94.22. %	94.34%
Overall Capacity Factor (based on 159.8 MW )	44.49%	62.87%

*\*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 2022. The plant has gone 1633 days (4.5 years) without any recordable injuries.
- ❑ All regulatory requirements were satisfactorily met during 2022
- ❑ The plant completed routine O&M Maintenance and started preparations for the Capital Project 2023 Major CTG Overhaul.
- ❑ Completed initial ZCP Conditional Availability Study for both Campbell Power Plant & McClellan.

# SFA – Carson Power Plant



# 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

<b>Operational Performance Data:</b>	<b>2021</b>	<b>2022</b>
Equivalent Forced Outage Factor (EFOF)	0.06%	0.14%
IEEE* Equivalent Availability (online or ready to run)	87.20%	90.52%
Combined Cycle Capacity Factor (based on 57.4 MW)	39.47%	36.50%
Peaker Capacity Factor (based on 42.5 MW)	2.88%	2.24%

*\*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 2022. The plant has gone 3919 days (10.7 years) without any recordable injuries.
- ☐ All regulatory requirements were satisfactorily met during 2022.
- ☐ The plant completed a Hot Section Overhaul on the CTG along with routine O&M Maintenance.

# SFA – Procter & Gamble Power Plant



# 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

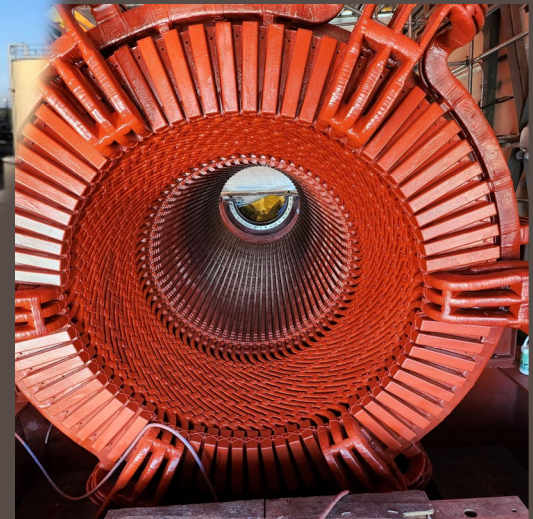
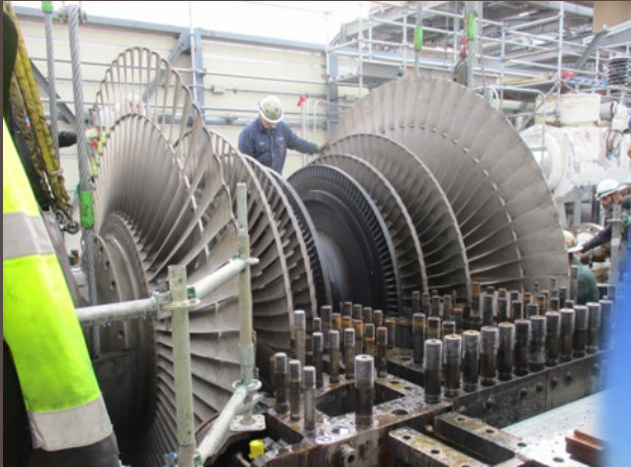
## Operational Performance Data:

	2021	2022
Equivalent Forced Outage Factor (EFOF)	0.34%	0.097%
IEEE* Equivalent Availability (online or ready to run)	91.41%	94.290%
Combined Cycle Capacity Factor (based on 120.3 MW)	48.50%	71.4%
Peaker Capacity Factor (based on 44 MW)	3.70%	2.470%

*\*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 2022. The plant has gone 5287 days (14.5 years) without any recordable injuries.
- ❑ All permit and regulatory requirements were satisfactorily met during 2022.
- ❑ A Lease Engine Program extension of 3 years was negotiated with GE, at no cost to SFA, due to previous engine repair delays at GE's repair shop. The Lease Engine Program covers engines at Procter & Gamble Power Plant and Carson Power Plant.

# SFA -- Cosumnes Power Plant (CPP)



# SFA Cosumnes Power Plant (CPP)

- 602 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
- Cleanest, most efficient use of renewable biogas

# SFA Cosumnes Power Plant (CPP)

<b>Operational Performance Data:</b>	<b>2021</b>	<b>2022</b>
Equivalent Forced Outage Factor (EFOF)	0.06%	0.13%
IEEE* Equivalent Availability (online or ready to run)	93.50%	51.60%
Overall Capacity Factor (based on 602 MW)	82.00%	22.70%

*\*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 2022. The plant has gone 1371 days (3.9 years) without any recordable injuries.
- ❑ The plant completed an extensive overhaul, which lasted 88 days, completing several capital projects.
- ❑ The Stator failure put the plant as unavailable through August 3, however, the plant was able to be configured to run in a 2x0 configuration (without the STG) and was able to run during the summer, including the September Heat Wave Event.