


Energy Resilience

Information Item

Presented by:
Mike Dorman
Director of
Engineering

Operations
Committee
October 4, 2023



OC&SAN
ORANGE COUNTY SANITATION DISTRICT

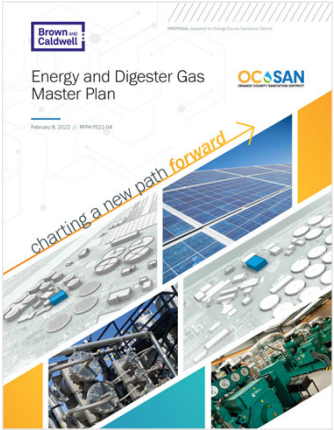
1

Energy & Digester Gas Master Plan

Planning Study for the long-term roadmap of biogas usage and power needs

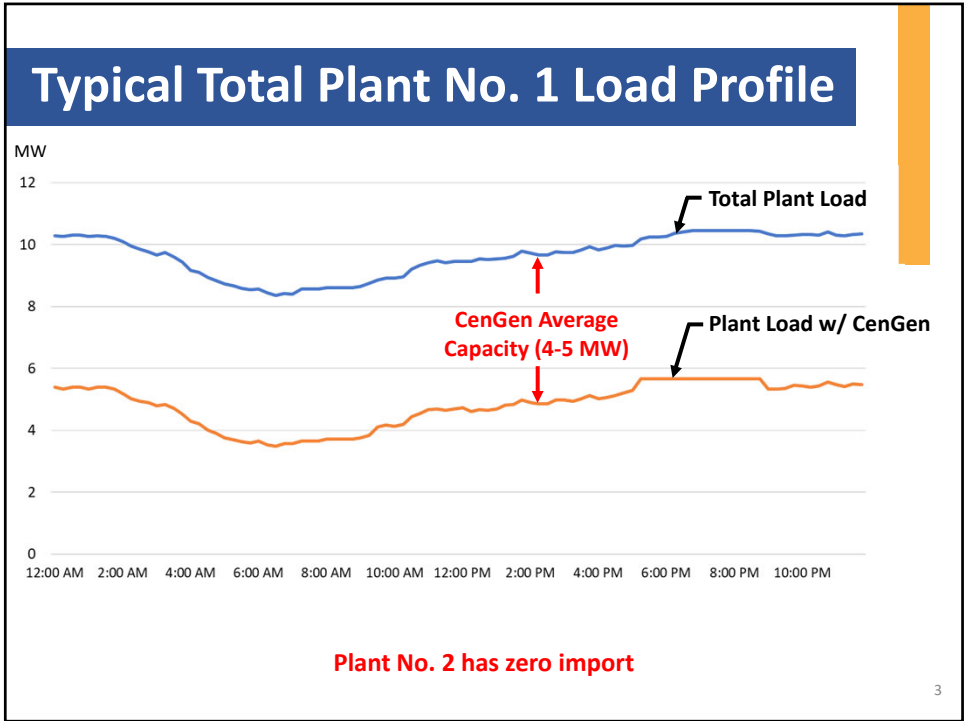
- Standby Power Policy
- Future CenGen Replacement
- **Energy Resiliency and Independence**

GM Work Plan Goal
Investigate energy storage options to build resilience and offer potential cost savings

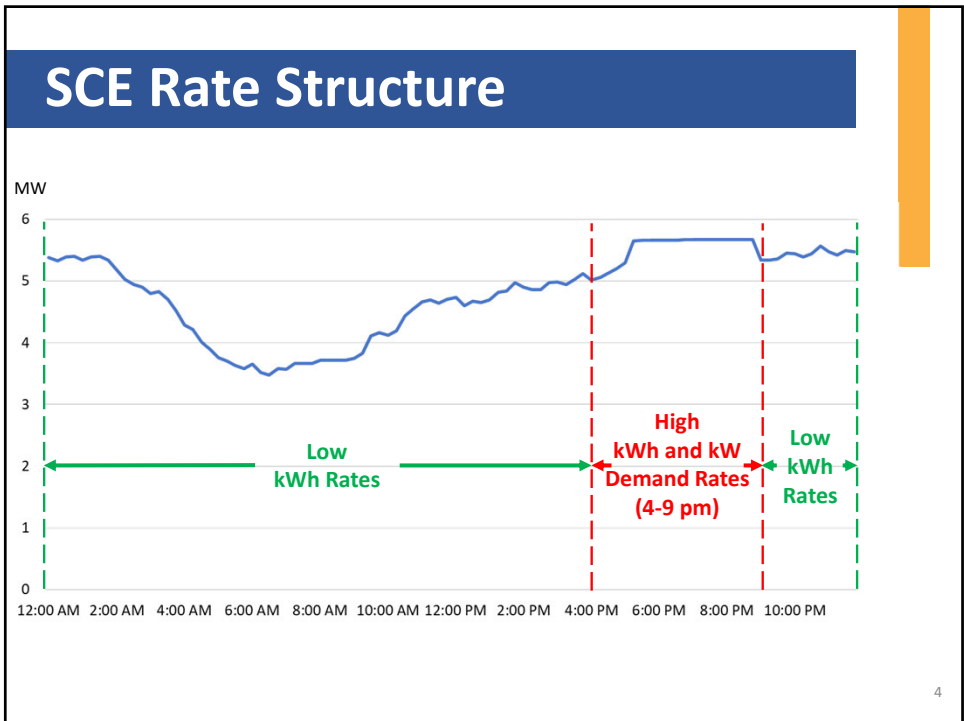


2

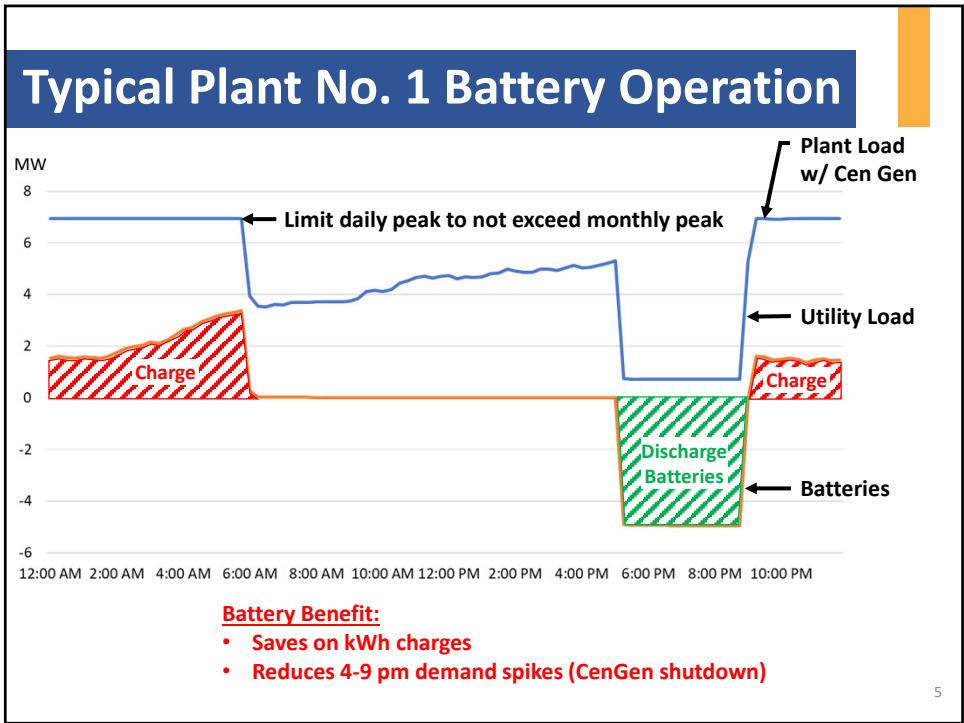
2



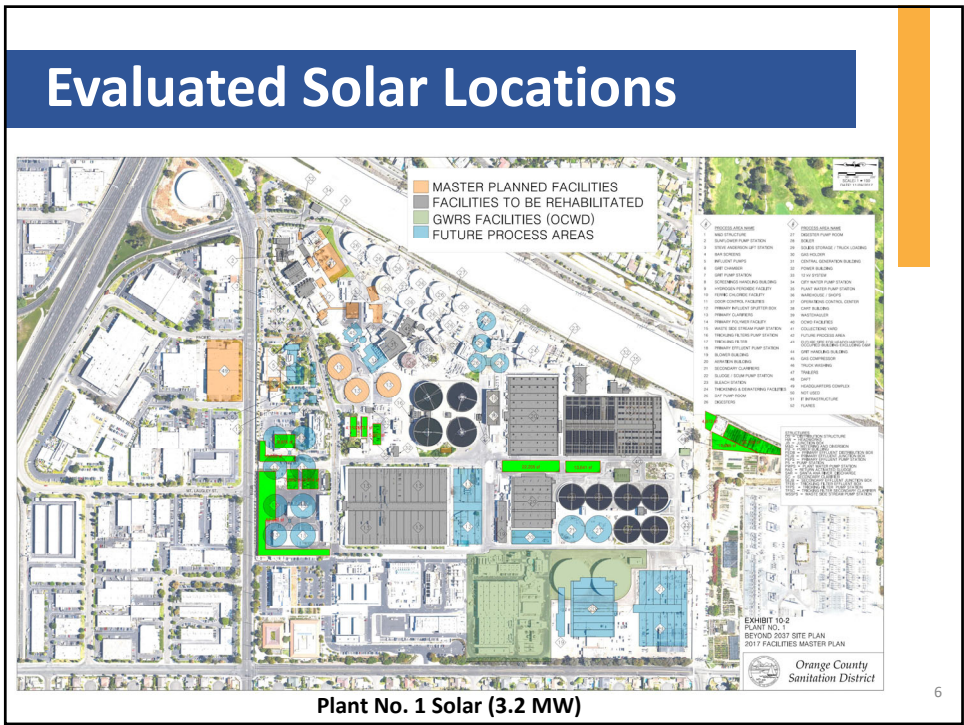
3



4



5



6

2022 Selected for Direct Access

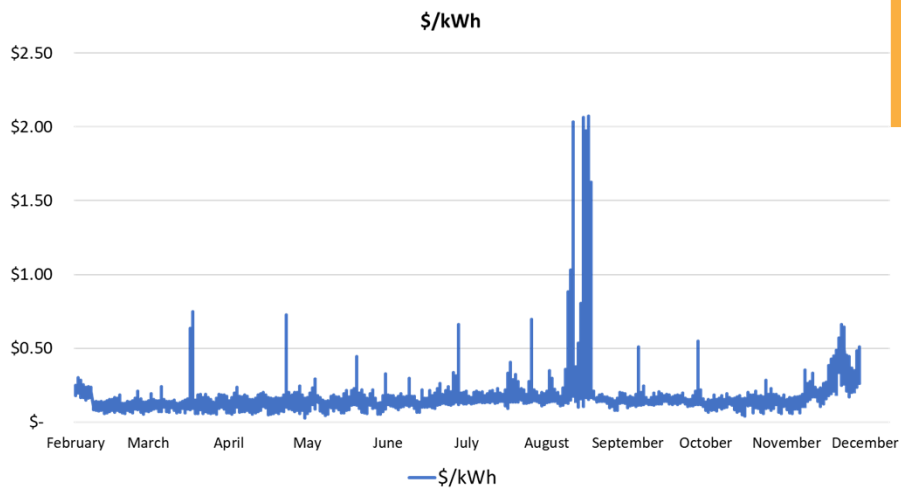
- 2022 to May 2023
 - Hourly Market Rate (Shell)
 - SCE Demand Charge (4-9 pm)
- May 2023: Locked in a 5-Year Rate
 - \$0.15/kWh effective rate
 - SCE delivery (\$0.03/kWh) (varies with tariff)
 - Direct Access energy (\$0.12/kWh) (Constellation)
 - Reduced SCE Demand Charge (4-9 pm)

Less benefit having batteries with new direct access rate

7

7

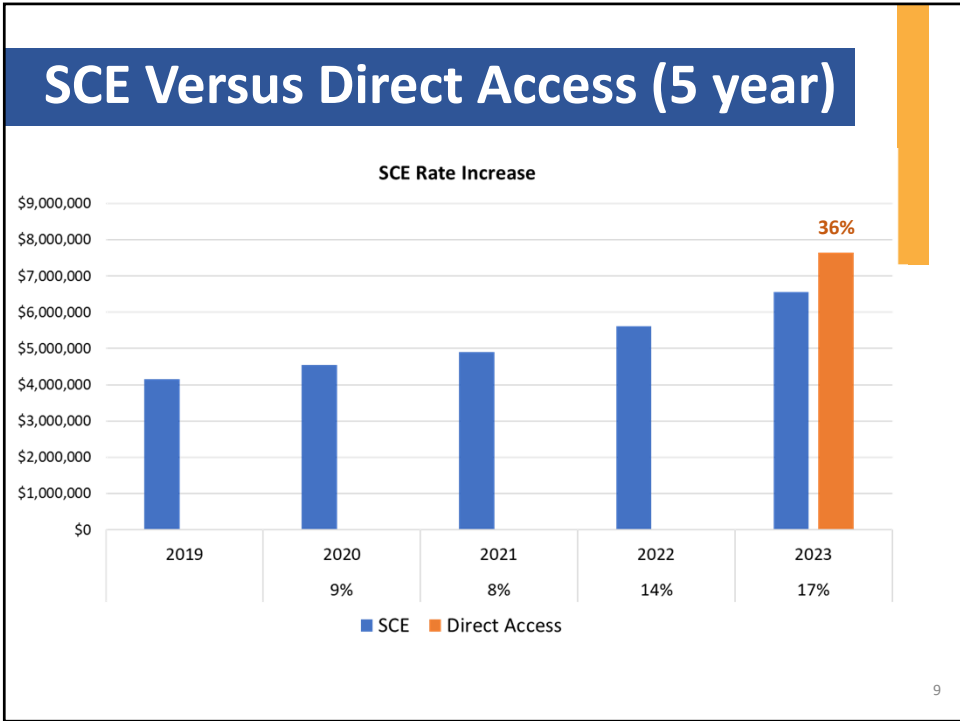
2022 Direct Access Volatility



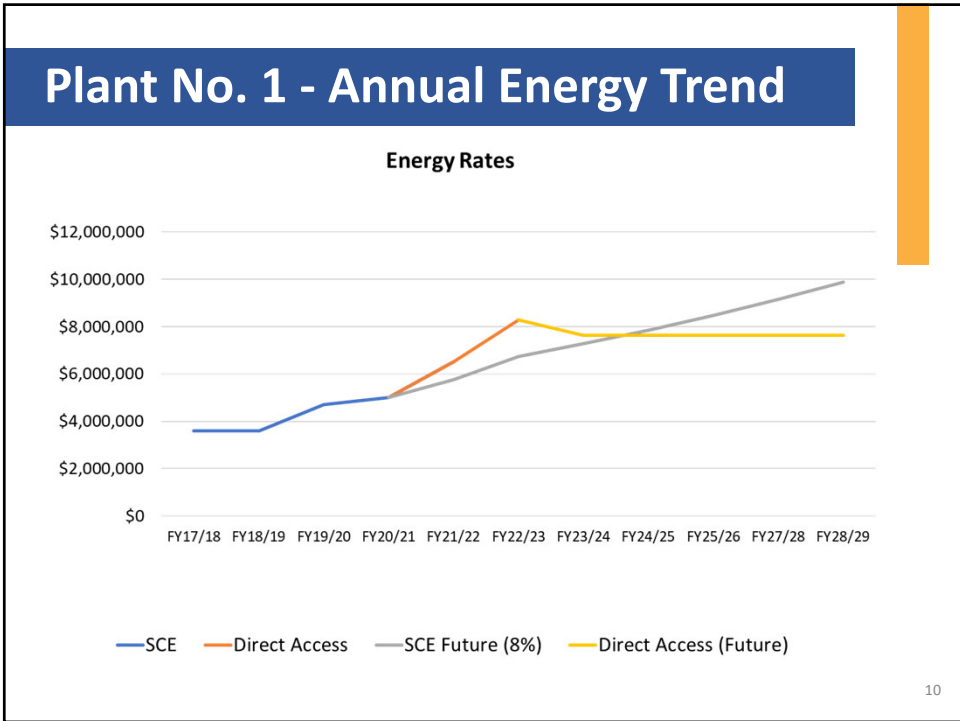
Lowest daily rates fluctuation between 10¢ to 20¢ plus 30¢ SCE delivery charge

8

8



9



10

Plant No. 1 Solar/Battery Alternatives

Alternatives	Capacity	Cost	Payback	Payback*
Solar	3.2 MW	\$ 12.7M	18 years	13 years
Batteries	27.7 MWh	\$ 14.5M	>50 years	>50 years
Solar + Batteries	26.0 MWh	\$ 13.4M	32 years	23 years

* Includes Inflation Reduction Act (IRA) funding and represents best case scenario for payback

Payback based on 3.5% utility rate increases

Conclusions

- Direct Access limits opportunities for savings
- Batteries are not cost competitive under Direct Access
- Solar has a long payback period

11

11

Questions



12