



Presidio National Park, San Francisco Presidio Trust Sustainable Electric System Study 2018

San Timoteo Energy Associates was retained by the Presidio Trust to provide a sustainable electric system study of the Presidio National Park in San Francisco. The study included:

- Solar PV project exploration
- ASHRAE Level 1 Energy and Water Audits for approximately 90,000 sf of Presidio Trust Managed Buildings
- Development of Electrification Standards for Residential Buildings
- Electricity and Water metering planning and support.

Electrical Capital Investments – Sustainability/Resiliency

2018 National Renewable Energy Lab (NREL) Study

- Looked at 10 potential sites for PV
- Deemed 7 suitable
- Space for approximately 2.28MW
- Estimated cost \$7.8M
- \$3.44/wdc installed cost
- \$0.1249/kWh over 20 years owned
- \$0.0944/kWh estimated 3rd Party PPA cos

Recommendation: Consider soliciting 3rd Party Power Purchase Agreement (PPA) proposals to provide 1-2 MW solar

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Electrical Capital Investments – Sustainability/Resiliency: Electrification

- Policy is to achieve 50% carbon reduction by 2023 and to achieve full climate neutrality in future
- Replacing gas fired equipment at buildings throughout the campus will allow for carbon neutral energy use
- Replacement of gas heating and water heating for residential units can take place at unit turnovers
- Replacement of gas fired heating and water heating in commercial buildings will be coordinated with Equipment Renewal programs

Recommendation: Create a standard heating/water heating heat pump replacement design standard for residences and commercial buildings.

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