



Veolia North America

Sustainable Industries & Buildings (SIB)

Opportunities for the Town of Discovery Bay CSD

Energy, Water & Wastewater Solutions

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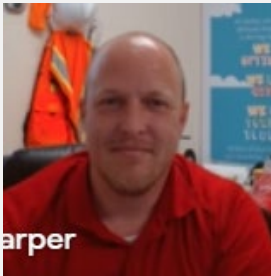


INTRODUCTIONS



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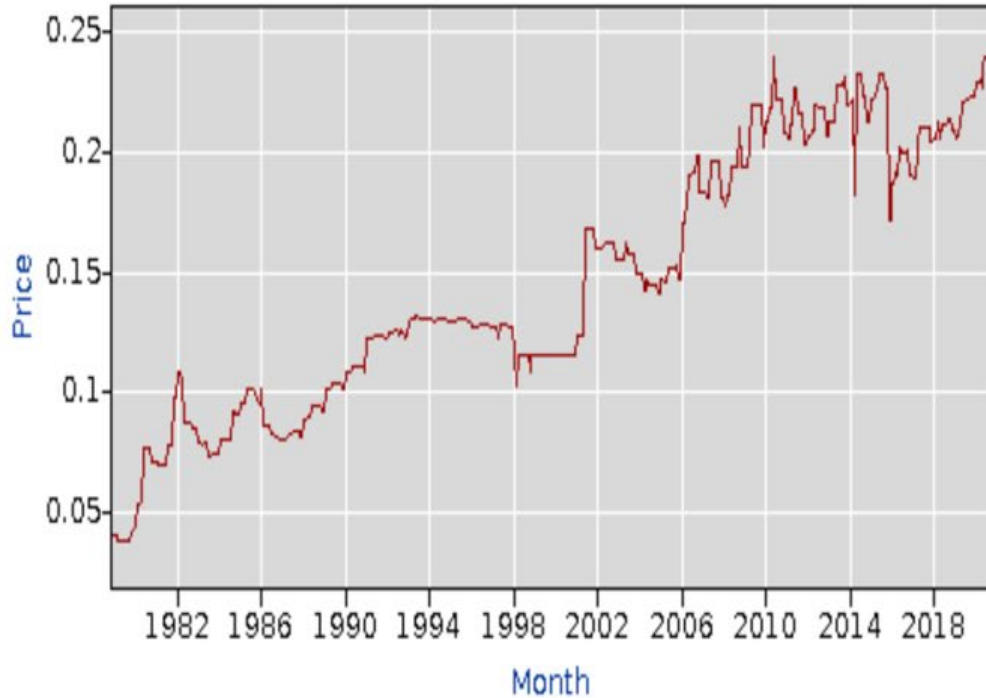
CHALLENGES – TOWN OF DISCOVERY BAY

Where do you go from here?

- Utility Grid Reliability – Dirty Power – Equipment Loss
- Resiliency – Power Outages - Public Safety Power Shutoffs
- High Energy Costs Escalation, over 10%+ annual average!
- Stranded / Aging Assets and Infrastructure
- Climate Change – Drought, flooding, wildfires and severe weather events are more common now than ever before in our history.
- Limited Financial Resources
- Growing Pains – Future Planned Expansion
- Limited Internal Resources to Develop Programs



UTILITY COSTS ON THE RISE (PG&E TERRITORY)



476%	Total Price Increase over dataset
11.32%	Average Annual Increase

Last Year's Increase was 10.26%

CPUC Decision Net Energy Metering (NEM-A v2.0)

- Reducing the economic value of going solar 50-75% from what it is today.
- Consumers get some of the best net metering benefits across the country under NEM 2.0
- These benefits will come to an end with the implementation of California's NEM 3.0

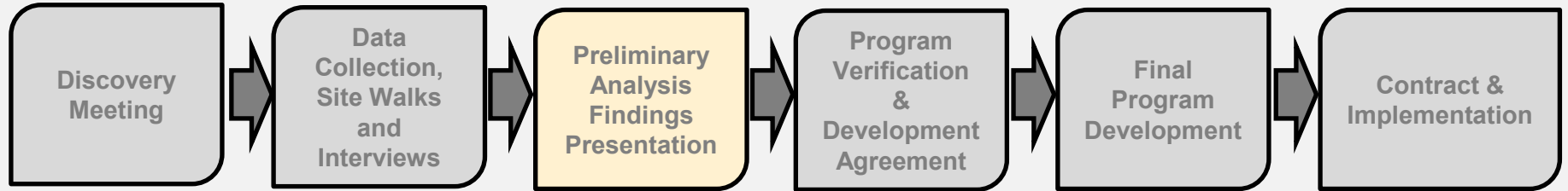


CPUC Decision Net Energy Metering (NEM-A v2.0)

CPUC will grandfather older systems in and continue to uphold the original agreements. This means going solar now would most likely allow you to lock in the net metering 2.0 benefits for 20 years.



VEOLIA'S PROVEN (SIB) PROGRAM



- Introduce Veolia SIB Program
- Identify Challenges/ Trends
- Identify Goals & Objectives
- Action Plan

- Collect facility information and square footages of your facilities.
- Collect and analyze your utility cost and consumption data.
- Identify any existing technical issues or deferred maintenance scope items..

- Select Scope of Work Measures to include in the program development process
- Estimated Savings
- Estimated Implementation Costs
- Estimated Greenhouse Gas Emission Reductions

- Verify Detailed Scope of Work
- Funding Solution
- Identify and Apply for Rebates, Grants and Incentives
- Confirm Schedule
- Review Financial Performance
- Draft Program Contract Review

- Finalize Funding Solutions
- Post Two Week Notice for CA Government Code 4217 Compliance
- Public Hearing & Resolution During Regularly Scheduled Board Meeting
- Present Final Guaranteed Costs & Savings
- Board Resolution

- Execute Contract
- Implementation of Measures
- Measurement & Verification (M&V)
- Energy Management Services
- Performance Guarantee
- Hubgrade

COMMON ENERGY CONSERVATION MEASURES FOR LOCAL GOVERNMENT

Facility & Infrastructure Controls System (BAS)

- Energy Dashboards with Analytics
- New Building Controls Systems
- Integrating Existing Controls Systems
- Occupancy Control Systems
- Control System Maintenance
- Measurement & Verification Systems

Energy Education & Training

- Conservation Curriculum
- Dedicated On-Site Resources
- Energy Policy Development
- Climate Action Planning (CAP)
- Energy Kiosks
- Energy Management Services

Building Envelope

- Window Replacements / Upgrades
- Door Systems
- Cool Roof Systems
- Wall Insulations
- Weather Stripping

Renewable & Non-Renewable Energy Generation & Storage

- Landfill Gas Capture
- Solar Photovoltaic
- Solar Thermal
- Battery Storage
- EV Charging Stations
- Biogas Cogeneration
- Geothermal
- Wind Turbines
- Generation System Maintenance

Lighting Systems

- Daylight Harvesting
- Street Lighting
- Traffic Lighting
- Interior & Exterior Lighting Retrofits
- Occupancy Sensors
- Exit Sign LED Retrofits
- Dimming Systems
- Bi-Level Switching
- Lighting Maintenance Services

Water / Wastewater Management

- Pumping Optimization
- Irrigation Controls & Retrofit
- Weather Based Irrigation Systems
- AMR - Automated Meter Reading
- AMI - Advanced Meter Infrastructure
- Wastewater Treatment Upgrades
- Waste Water Treatment Maintenance

HVAC Systems

- Central Utility Plants
- Central Plant Optimization
- HVAC Equipment Replacements
- Variable Speed HVAC Controllers
- Demand Control Ventilation
- Piping System Retrofits
- Air Handling System Retrofits
- Waterside Economizers
- Water Treatment Systems
- HVAC System Maintenance

Other Systems & Services

- Smart City Technologies
- Fire Alarm Systems
- CCTV Security Systems
- Intrusion Security Systems
- Oil Recycling Programs
- Computer Power Management
- High Efficiency PC's
- Vending Machine Controls
- Power Factor Correction
- Program & Construction Management
- Master Planning



PROGRAM GOALS – TOWN OF DISCOVERY BAY

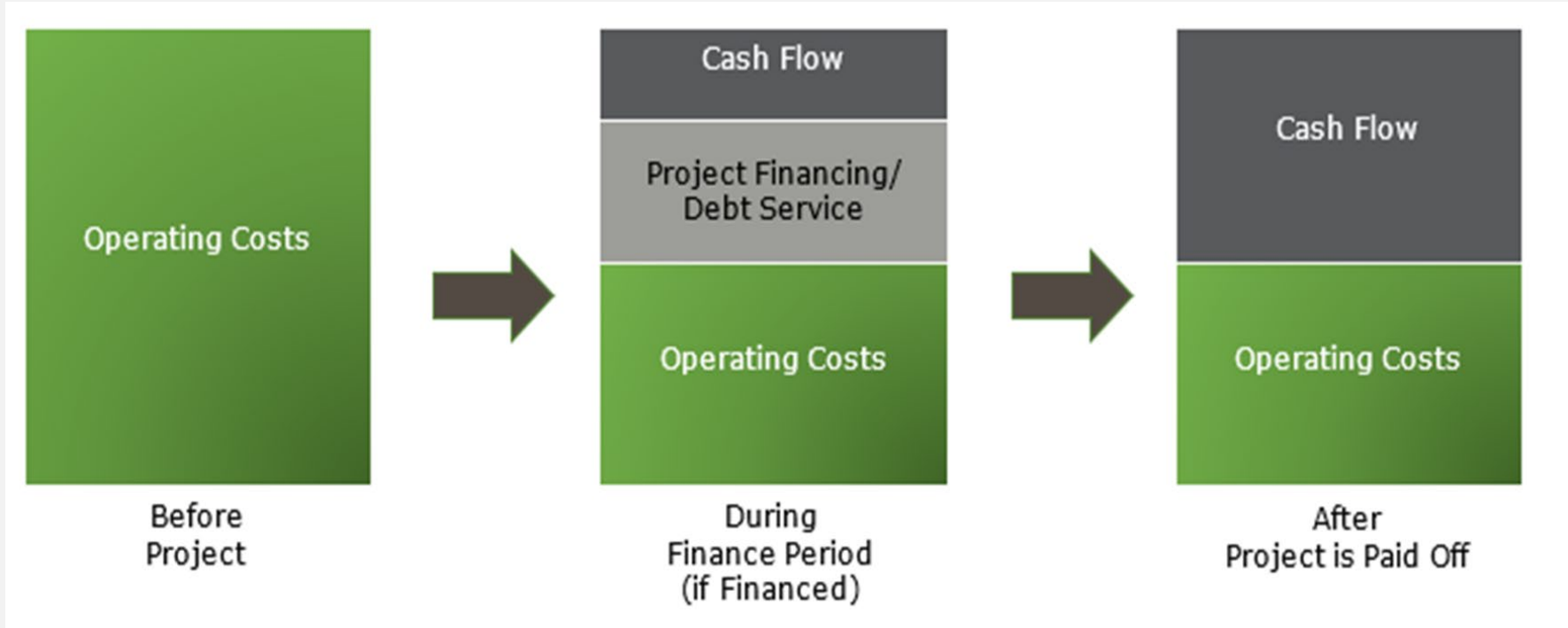
Where do you go from here?



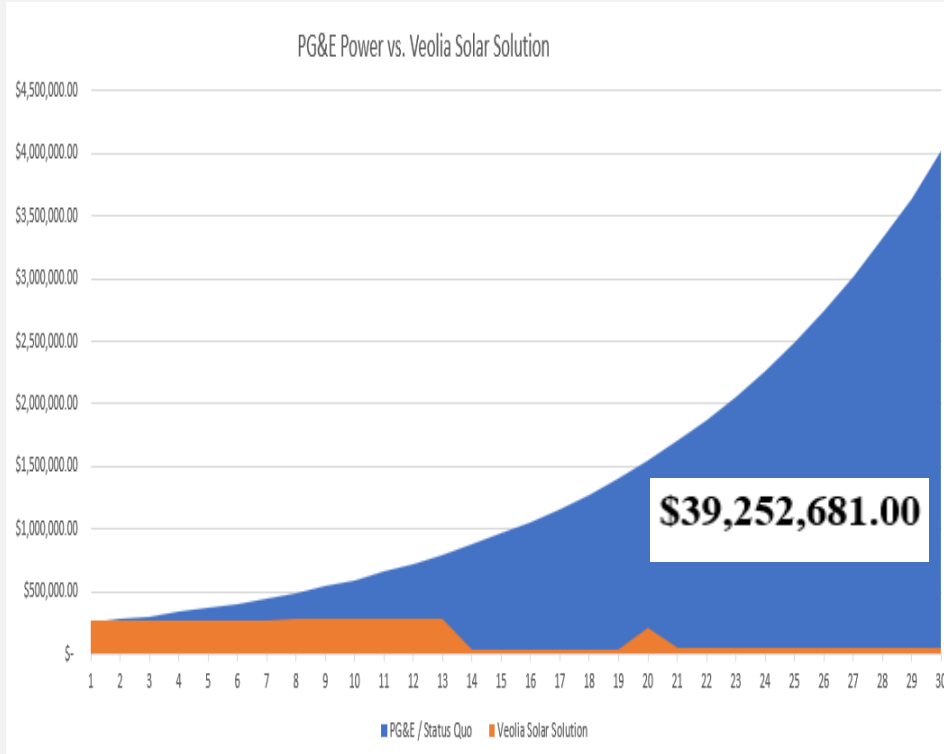
1. **To increase resiliency for critical facilities for the Town of Discovery Bay**
2. To reduce long-term cost savings through reduced electricity, gas and water usage.
3. Upgrade antiquated and inefficient equipment
4. To reduce carbon footprint and greenhouse gas emissions
5. To secure grants, rebates and incentives that are available to Town of Discovery Bay
6. To utilize the Community Center as an Emergency Response Center in the event of a climate or other emergency.
7. Provide a comfortable and safe environment for all occupants of TODB CSD facilities
8. Minimize the financial and technical risk to the TODB CSD
9. Community Outreach
10. Provide comprehensive funding solution to the TODB CSD
11. EV Infrastructure Planning and Implementation
12. Water tower / storage, gravity flow through pipes
13. Design for future expansion of community



BUDGET NEUTRALITY



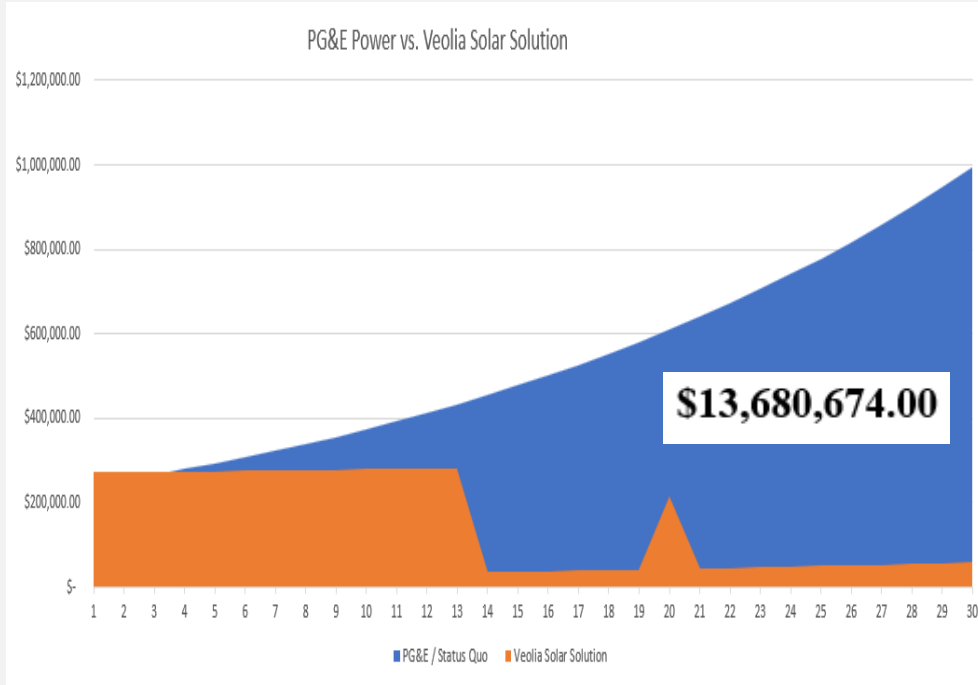
So what? What does that mean for us?



Projected Electrical Cost Savings over life of Solar Renewable Energy System @ 10% PG&E Annual Escalation, 1,084% ROI



So what? What does that mean for us?



Projected Electrical Cost Savings over life of Solar Renewable Energy System @ 5% PG&E Annual Escalation, 377% ROI



FUNDING SOLUTIONS

Leveraging Available Funding

California State Grants & Financing Programs

The State of California has issued many grants and subsidized financing programs for Energy Efficiency, Energy Storage, Renewable Energy Generation and Electric Vehicle (EV) Infrastructure.

Infrastructure Investment and Jobs Act

Provides funding for Western Water Infrastructure, Water Storage, Water Recycling and Reuse, Desalination, Critical Maintenance and Repair, Water Efficiency, Resiliency, ZEV and Energy Efficiency. Applications opening 4Q 2022! Now!

Public-Private Partnerships

Allows for access to private sector financing and the transfer of risk from the public entity to the private sector. P3's provide guaranteed performance and uptime and increased operational efficiency.



INFLATION REDUCTION ACT of 2022

Let's take a closer look!

- \$749 billion funding includes \$369 billion for climate-related emissions reduction activities!
- Creates new credits for anaerobic digestion plus other biofuels
- Expands and extends more tax credits
- Allows projects to monetize tax credits directly
- Authorizes investment tax credits (ITCs) up to 50% or more of qualified project costs rather than the historic 30%
- Establishes a stand-alone ITC for battery or certain thermal storage
- Creates a \$27 billion national Green Bank (called the Greenhouse Gas Reduction Fund) to leverage funding for early-stage or other hard-to-finance renewable energy projects
- Appropriates over \$100 billion to support (e.g.) federal, state, local and tribal project permitting, carbon capture and clean hydrogen development, clean transportation, GHG reduction planning, and Energy Department loan guarantees

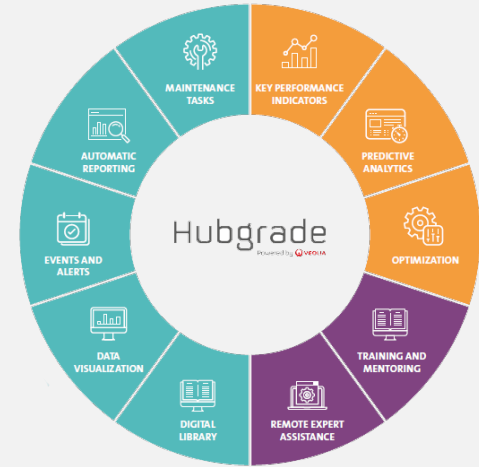


Hubgrade

Advanced Intelligence coupled with Human Experience

Hubgrade Energy and Climate Action Planning Solutions

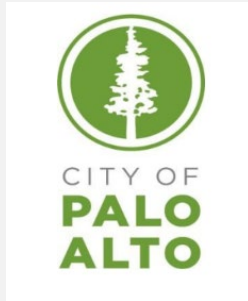
- Energy Benchmarking
- Historical Usage Patterns
- General Load Analysis
- Routine Site Visits
- Project Feasibility Assessments
- HVAC Scheduling & Optimization
- Utility Rate Analysis and Optimization
- Measurement & Verification
- Commissioning, Retro-Commissioning & Continuous Commissioning
- Custom Energy, Water, Waste, and GHG Reduction Dashboards
- EnergyStar Certification
- LEED Certification
- Staff Training
- Community Awareness and Education Programs
- Utility rates, incentives and rebate updates





RECENT CALIFORNIA LOCAL GOVERNMENT ENERGY AND WATER PROGRAM CLIENTS

- City of Arvin
- City of Burlingame
- County of Santa Clara
- Solano County
- City of Oakland
- City of Burbank
- City of Rialto
- Placer County Water Agency
- City of Rio Vista
- City of Palm Springs
- West Basin Municipal Water District



Community Center & Willow Water Treatment Facility

- Energy Efficiency
- LED Lighting Upgrades
- Operational Efficiency
- Solar Renewable Energy Generation
- Battery Energy Storage Systems
- Microgrid Controls for Resiliency
- High Efficiency Motors
- Variable Frequency Drives on Pumps
- Water storage tower and pumped hydro renewable energy generation



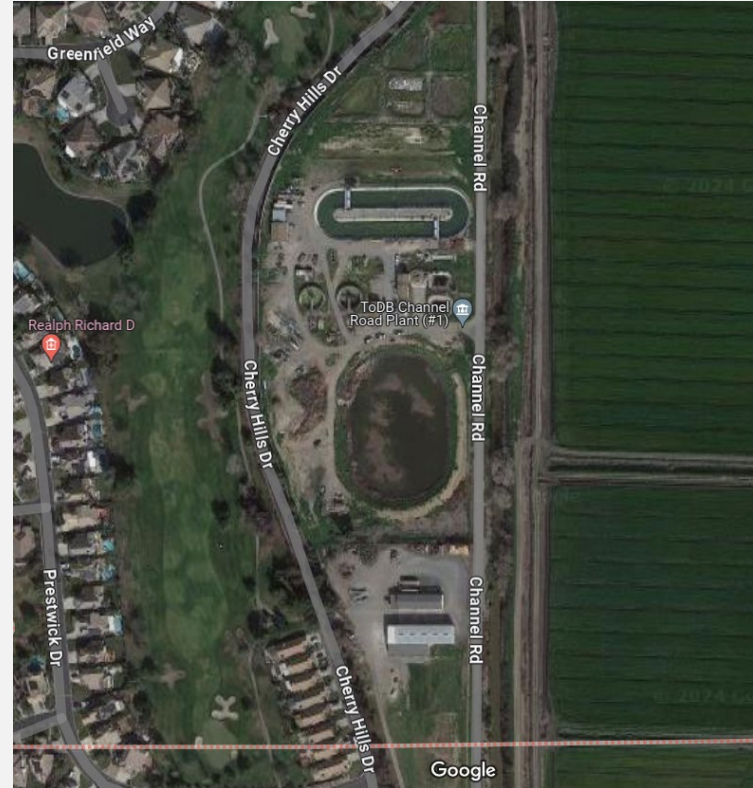
Newport Water Treatment Facility

- Energy Efficiency
- LED Lighting Upgrades
- Operational Efficiency
- Solar Renewable Energy Generation
- Battery Energy Storage Systems
- Microgrid Controls for Resiliency
- High Efficiency Motors
- Variable Frequency Drives on Pumps



Wastewater Treatment Plant #1

- Energy Efficiency
- LED Lighting Upgrades
- Operational Efficiency
- Solar Renewable Energy Generation
- Battery Energy Storage Systems
- Microgrid Controls for Resiliency



Wastewater Treatment Plant #2

- Energy Efficiency
- LED Lighting Upgrades
- Operational Efficiency
- Solar Renewable Energy Generation
- Battery Energy Storage Systems
- Microgrid Controls for Resiliency
- High Efficiency Motors
- Variable Frequency Drives on Pumps & Blowers



Only with Veolia can you achieve!

- **Secured Net Energy Metering (NEM-A) v2.0 Grandfathered PG&E Electric Meter:** Veolia will design and submit all interconnection applications on the TODB CSD behalf to get the Community Center and Willow Water Treatment Plant grandfathered in on this more lucrative Net Energy Metering (NEM) Program
- **Leverage of Tax Incentives and Cash Payments Funding:** Veolia aids the TODB CSD in securing the Federal 30% Investment Tax Credit (ITC) with Cash Payment to Special Districts to reduce capital expense of implementing the system.
- **Upgrade to Energy Efficient Equipment:** Upgrade today and pay for it with future energy savings. No need for capital funds or additional funding, just re-directs funds already in the budget for utilities and O&M to these smart investments.
- **Perform Capital Improvements:** Capital Budget Avoidance
- **Decrease Operating Costs (Utility and O&M):** Veolia helps stabilize budgets from volatility in the energy marketplace and once the debt service is paid in full, all subsequent energy cost savings are realized, and operating budgets are permanently lowered.
- **Hedge Against Historical High Utility Escalation Rates:** PG&E has high electric escalation rates as illustrated by the data over the last 40 years. Veolia will help hedge against these inflationary pressures.
- **Resolve Deferred Maintenance Items:** Some clients do not have the capital or operating budgets to perform required equipment and system maintenance. (e.g. chillers, boilers, cooling towers, controls, electrical upgrades, air handlers, pumps, valves, etc.) Veolia can integrate these services in the long-term O&M contract.



Veolia Brings Value!

- **Guaranteed Performance:** Veolia's typically install systems and equipment that it guarantees will generate savings for the payback period of the loan. If a piece of equipment fails during the payback period of the project, Veolia is responsible for replacing it.
- **Responsibility:** Veolia is obligated to pay in the event of an energy savings shortfall and must guarantee the energy savings. If actual savings are lower than guaranteed, Veolia reimburses the owner for the shortfall.
- **Measurement & Verification:** Annual energy savings verification is conducted per the International Performance Measurement & Verification Protocol (IPMVP), an industry standard to prove the savings is being achieved.
- **Accountability:** Veolia serves as the single point of accountability. No finger pointing between consultants, subcontractors and equipment manufactures / vendors.
- **Financing Solutions:** Veolia assists the TODB CSD in identifying rebate, incentives, and low interest financing options that are available.
- **Cost Certainty:** Project cost is guaranteed. No change orders.
- **Create Long Term and Sustainable Energy Efficient Systems:** Hubgrade energy & carbon footprint reduction dashboards.



Town of Discover Bay Sustainability Journey

- Introduction to Veolia's Facility & Building Services (FBS) Program 08/2023
- Presentation to Water & Wastewater Committee 10/2023
- Utility and Site Data Collection 11/2023
- Preliminary Site Walks 12/2023
- Preliminary Utility Data Analysis 12/2023
- Presentation of the Preliminary Analysis and ECM Selection 01/2024
- Program Memorandum of Agreement (MOA) 01/2024
- PG&E Solar Design and Interconnection Applications are Due 02/2024



| *Questions?*



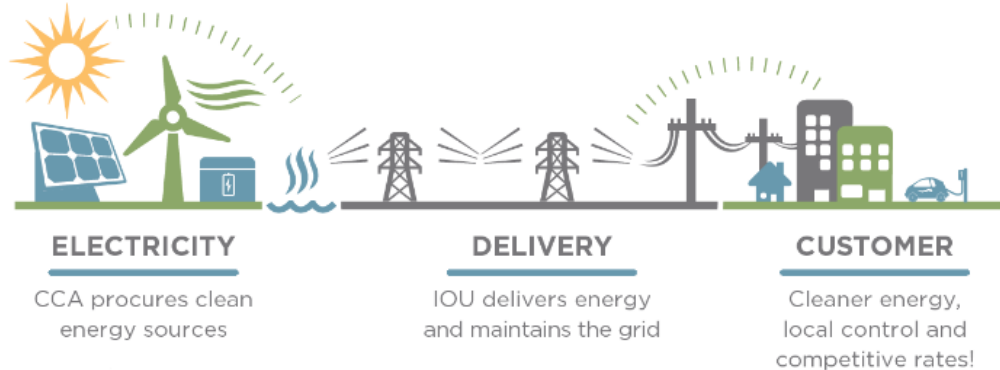
Discovery Bay Community Expansion



Community Choice Aggregation

How Community Choice Works

Through Community Choice Aggregation (CCA), communities can join together to pool (or aggregate) their electricity load in order to purchase clean energy and develop local projects and programs on behalf of their residents and businesses. Aggregators work in partnership with the region's existing Investor-Owned Utility (IOU), which continues to deliver power and maintain the grid.



Community Choice Aggregation

- ✓ Consumer choice, local control, and accountability
- ✓ Policy tool to help communities reach their climate and economic goals
- ✓ Transition to a cleaner, more efficient energy supply
- ✓ Revenues reinvested in the community, not distributed to shareholders
- ✓ Development of new renewable energy projects
- ✓ Tool for communities to establish local energy resources and programs such as solar+storage for resilience, low-income solar, EV vehicle and infrastructure incentives, feed-in-tariff, net energy metering (NEM), energy efficiency, demand response, and more




ENVIRONMENTAL BENEFITS

Carbon Reduction & Climate Action Planning Goals per AB32



1,055 Metric Tons of Carbon Dioxide (CO₂) equivalent

This is equivalent to greenhouse gas emissions from:

235 gasoline-powered passenger vehicles driven for one year 

2,703,797 miles driven by an average gasoline-powered passenger vehicle 

This is equivalent to CO₂ emissions from:

118,680 gallons of gasoline consumed 

103,606 gallons of diesel consumed 

1,181,436 pounds of coal burned 

14 tanker trucks' worth of gasoline 

133 homes' energy use for one year 

205 homes' electricity use for one year 

5.8 railcars' worth of coal burned 

2,439 barrels of oil consumed 

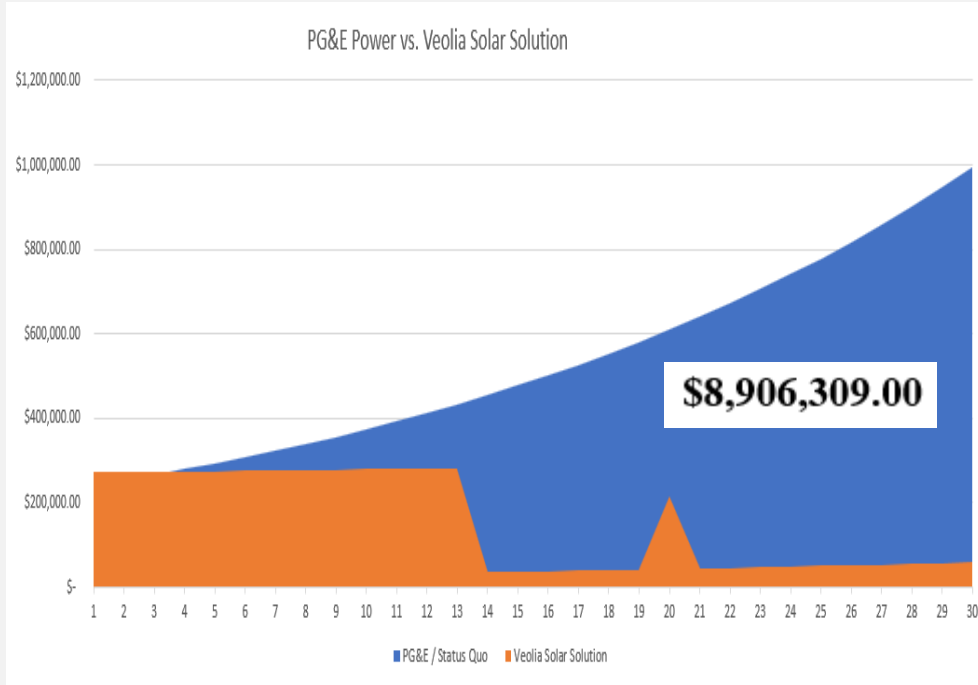
48,452 propane cylinders used for home barbeques 

0.0003 coal-fired power plants in one year 

0.003 natural gas-fired power plants in one year 

128,297,563 number of smartphones charged 

So what? What does that mean for us?



Projected Electrical Cost Savings over life of Solar Renewable Energy System @ 3% PG&E Annual Escalation, 246% ROI

