CASBO & FOREFRONT POWER PRESENT

COVID-19

An opportunity to save with solar + storage

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Quick Poll

CASBO WEBINAR

Meet Your Speakers

Brian Taylor
Sr. Director, Public Sector

Advisor to Public Sector Agencies across California, resulting in over 100 MW of solar and energy storage capacity.

Kevin Flanagan
Program Manager, SPURR

Program manager for the Renewable Energy Aggregated Procurement Program; Solar & and Energy Storage Consultant.

ForeFront Power

900+ MW of Solar and energy storage
California Public Sector Leader: 280 MW
SPURR REAP Winner: 135 MW
'A' Rated Parent Company: Mitsui & Co

SPURR

Established 1989
Joint Powers Authority (JPA) focused on reducing utility costs.
Buying Consortium of 200+ Public Agencies
Aggregated Procurement

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Meet Your Speakers

Liz Fitzpatrick
Associate Program Manager, SEI

Liz manages SEI's Southern California workforce education and training programs from her base in San Diego. She is a technical education specialist, working on the Energize Schools, Energize Colleges, and Climate Corps programs.

Jessica Redden
Associate Project Coordinator, SEI

Jessica supports K-12 educational programming and curriculum development at SEI, including Energize Schools and Zero Waste Marin.

Strategic Energy Innovations

Strategic Energy Innovations (SEI) is an environmental nonprofit that builds leaders to drive sustainability solutions. For over 20 years, SEI has partnered with schools, communities, and businesses to develop a leadership pathway from elementary school to early career.

sei STRATEGIC ENERGY INNOVATIONS

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CASBO WEBINAR

Webinar Agenda

1. Incentives Overview
   - State and Federal
   - Important deadlines
2. Solar and Storage Procurement Options
   - COVID-19 impact on project timelines
   - SPURR's Program expediting the procurement process
3. Energy Storage
4. STEM Curriculum and Living Lab

* Bonus: Microgrids

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CASBO WEBINAR

Our goals for the webinar:

- ✓ Incentives available: timing is of the essence
- ✓ Different procurement options (pros and cons)
- ✓ Energy storage: Demand charges and the benefits to pair it with solar
- ✓ Collaborative opportunities: Campus as living lab

* Microgrids: how it works, and how increase resiliency

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Renewable Landscape Update

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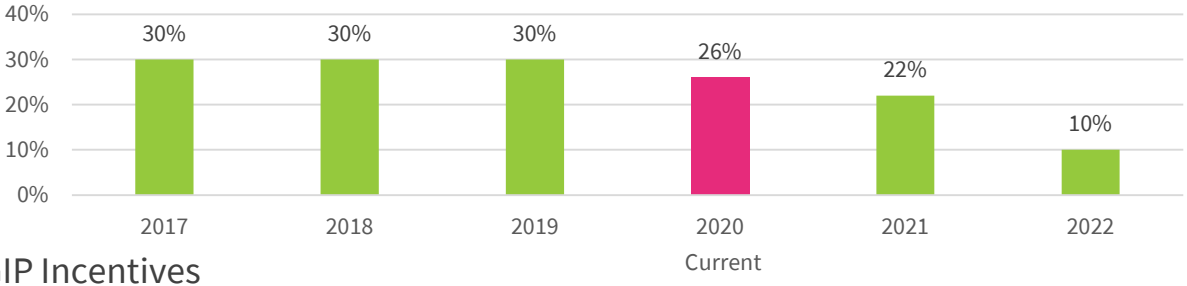
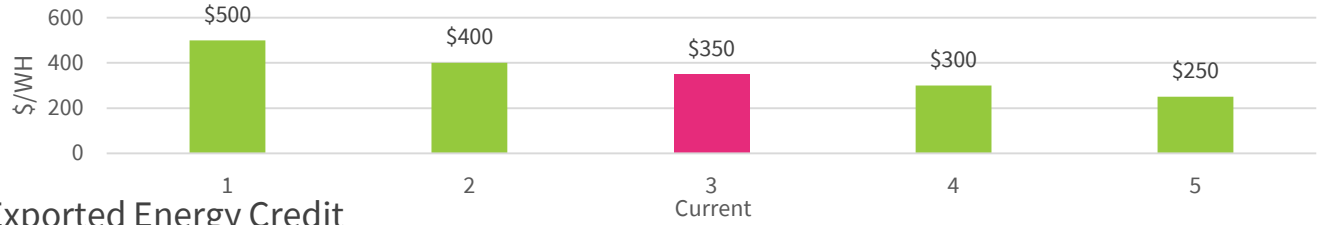
Solar & Storage Incentives

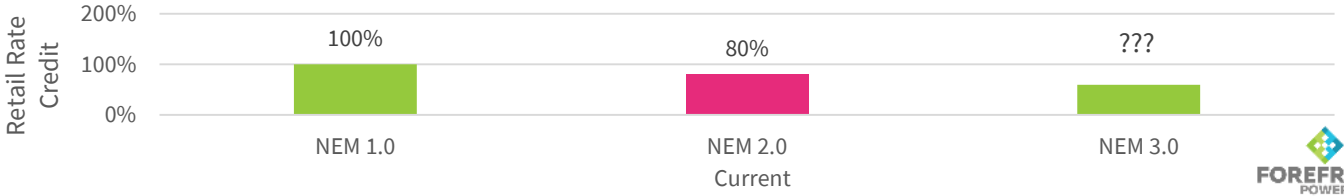
Federal Tax Incentives



Storage Incentives – SGIP Incentives



Net Energy Metering – Exported Energy Credit



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Solar and Storage Agreements

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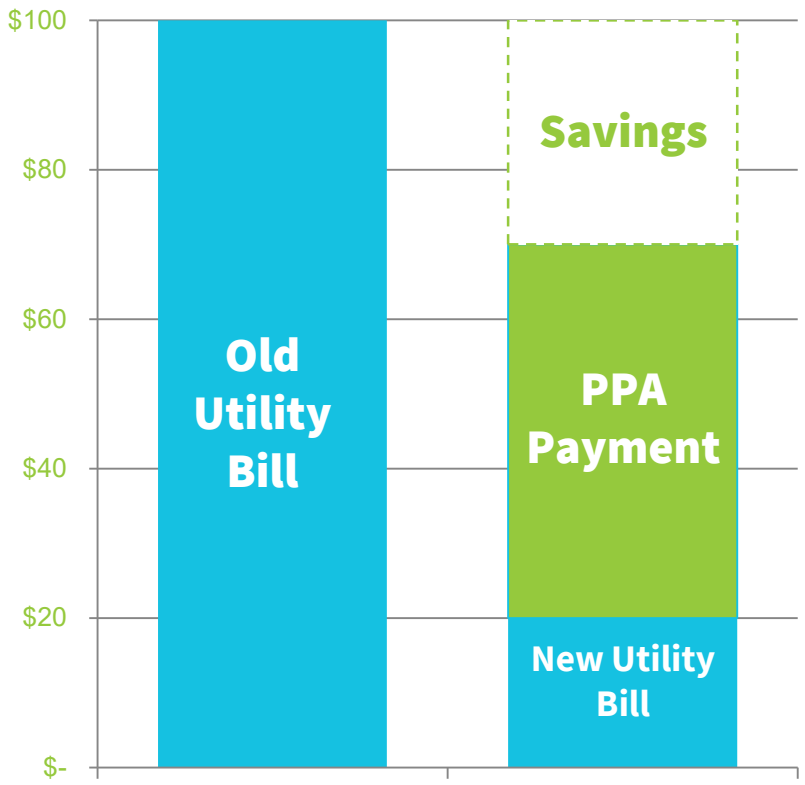
Solar Agreements

Power Purchase Agreement - PPA

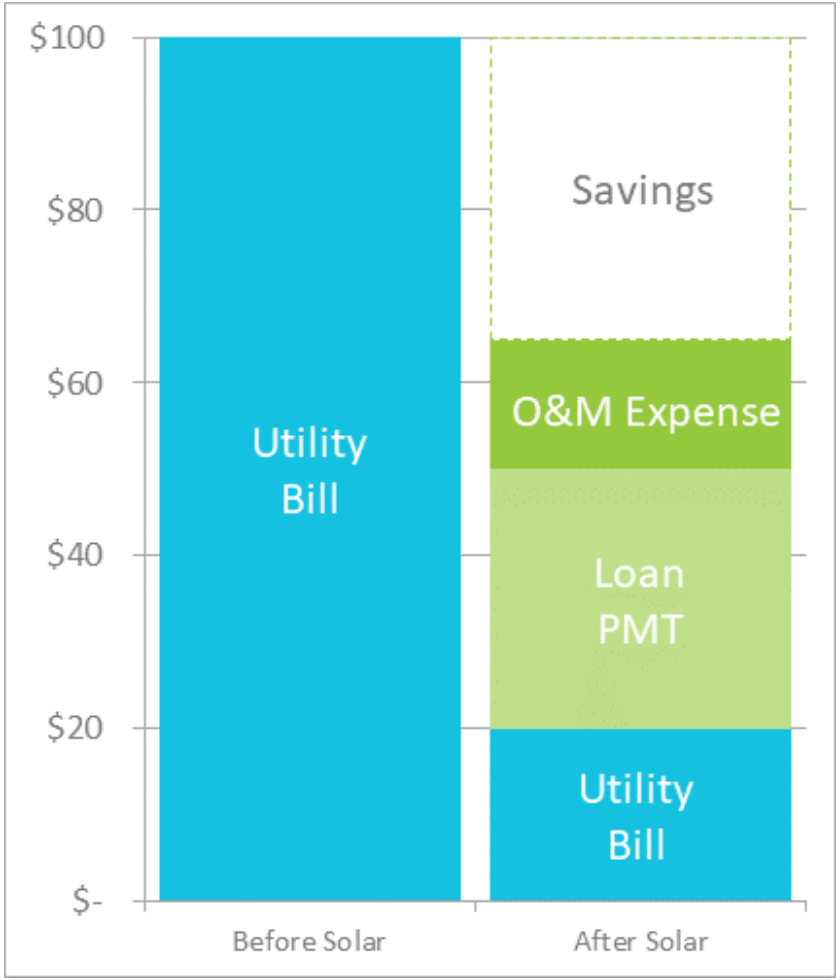
- No upfront cost / No Bonding
- Year 1 Savings
- 0% Escalator for 20 Years
- Utility Rate Hedge
- Monetize Federal Tax Credit
- Aligned Partnership
- Free Operations & Maintenance
- Guaranteed Performance



Solar Agreements

Design Build, also known as “cash deal”

- System Ownership
- Expand General Fund
- Available Cash / Cheap Capital
- Operations & Maintenance Agreement
- Performance Guarantee



Quick Poll

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Solar Procurement

Procurement options for your district
How the SPURR REAP Program has made it easy

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Procurement Methodologies

Self-Run

- Limited Experience
- Low Cost
- Time/ Resource Investment
- 12-18 Month Procurement

Consultant

- Expertise
- High Cost
- Moderate Resources
- 12-18 Month Procurement

JPA

- Expertise
- Low Cost
- Minimal Resources
- 3-9 month Procurement

"ForeFront Power and SPURR made it so simple for the District to know that we were getting the best value for our dollar working with them" said Sherrie Castellanos, Chief Business Official at South Monterey County Joint Union High School District

"We are making a difference at South Monterey County JUHS and the students can see it. ForeFront Power came out and introduced a career fair, met with the students – everything we can do to keep money in the classroom rather than putting out in utilities" said Sherrie.

Quick Poll

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SPURR's REAP Program

SPURR
Buying Together. Buying Better.

- SPURR: School Project for Utility Rate Reduction
  - JOINT POWERS AUTHORITY FOUNDED IN 1989
  - BUYING CONSORTIUM OF 200+ USDS & CCDS
  - AGGREGATED PROCUREMENT FOR UTILITIES
- REAP RFP: Renewable Energy Aggregated Procurement
  - SAVE TIME: STREAMLINE SOLAR & STORAGE BUYING PROCESS.
  - SAVE MONEY: DRIVE DOWN PROJECT PRICING.
  - REDUCE RISK: IMPROVE CONTRACT TERMS AND CONDITIONS.
- REAP RFP Solicitation:
  - MULTIPLE DIFFERENT SOLAR & STORAGE PROJECT TYPES INCLUDED.
  - SPECIFIC PROJECT INCLUDES, EXCLUDES, AND ASSUMPTIONS.
  - 30+ VENDOR SOLICITATIONS, 7 PROPOSALS RECEIVED.

Winner: ForeFront Power

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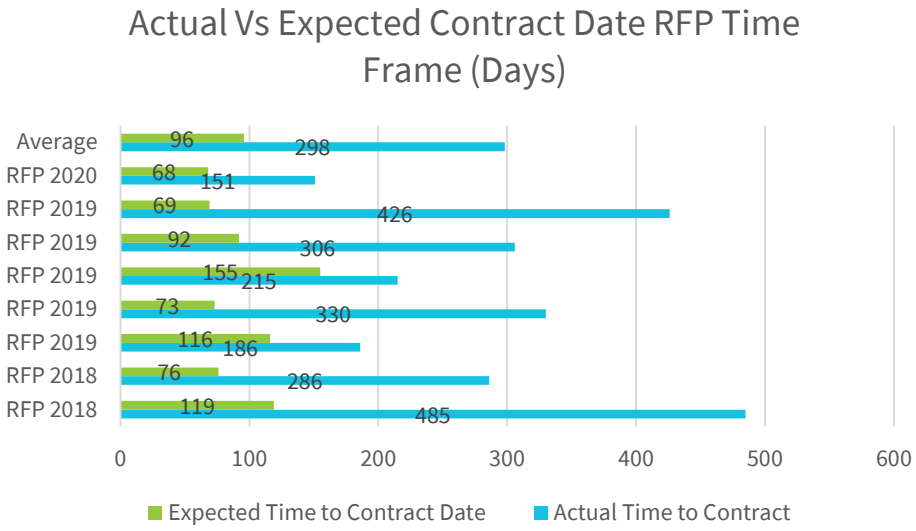
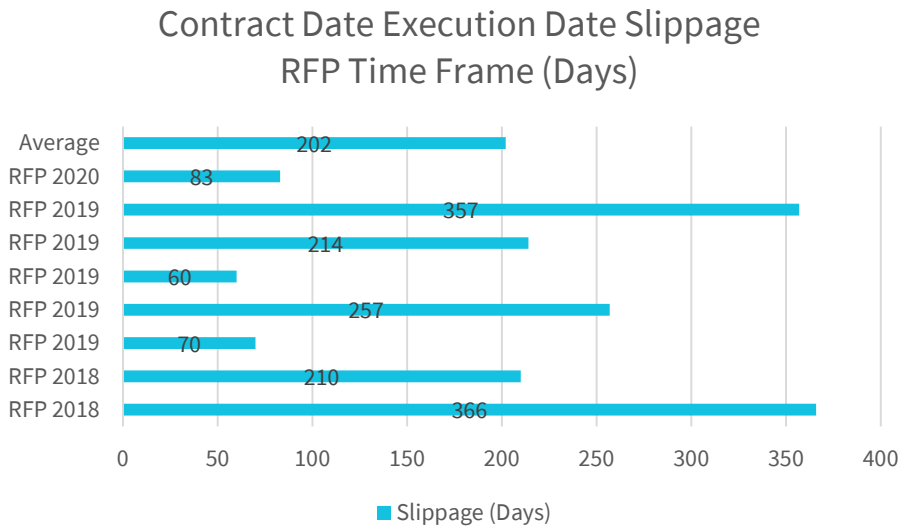
PROCUREMENT IN 2020 WITH COVID





- **Average Time Frame from RFP Issuance to Contract: 298 Days**
- **Average Slippage in Contract Time Frame: 202 Days**
- **Meaning if you were to release an RFP today, on average you would contract by May 2021.**
- **COVID is not helping…**

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Benefits of REAP Program

Proven: 40+ California Public Agencies use REAP

- 20+ SCHOOL DISTRICTS
- 10+ COMMUNITY COLLEGES
- 5+ CITIES, COUNTIES, UNIVERSITIES

"Easy Button"

- SOLAR, STORAGE, & EV CHARGING
- COMPETITIVE PROCESS
- EXCEEDS REQUIREMENTS OF GOV CODE 4217

Reduced Project Risk:

- STANDARDIZED PRE-VETTED PPA CONTRACT
- STANDARDIZED PRICING & STANDARDIZED TERMS
- FAVORABLE TERMS/CONDITIONS: RECS, ANNUAL PERFORMANCE GUARANTEE, LDS, ETC.

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Energy Storage

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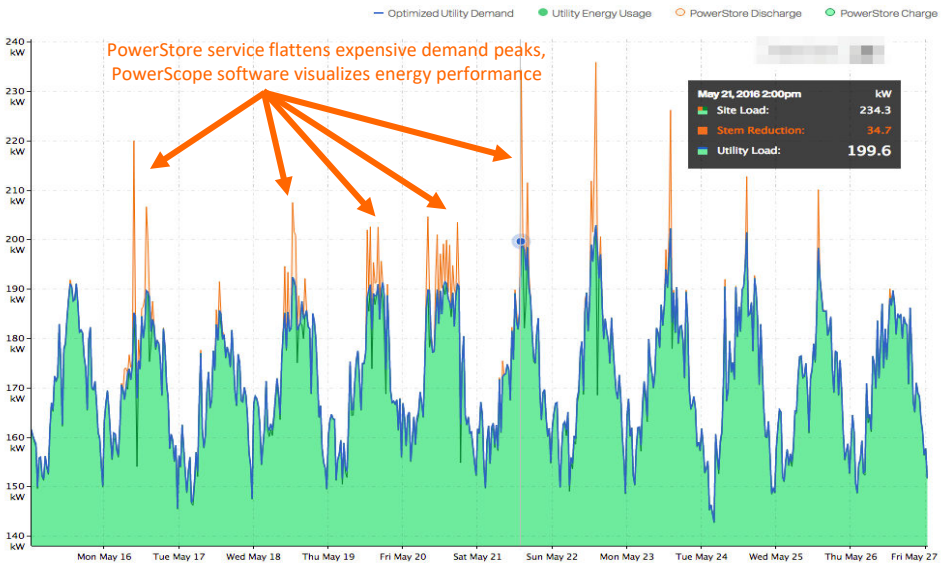
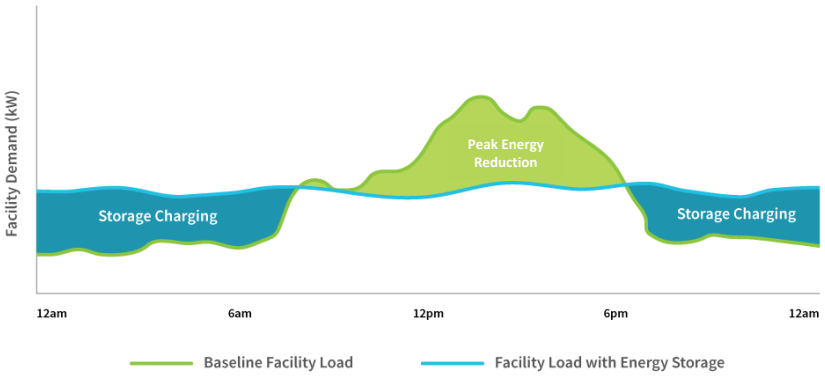
Energy Storage Solutions



Demand Charge Savings

Intelligently discharge the battery to shave demand charges.



Energy Arbitrage

Buy Low / Sell High

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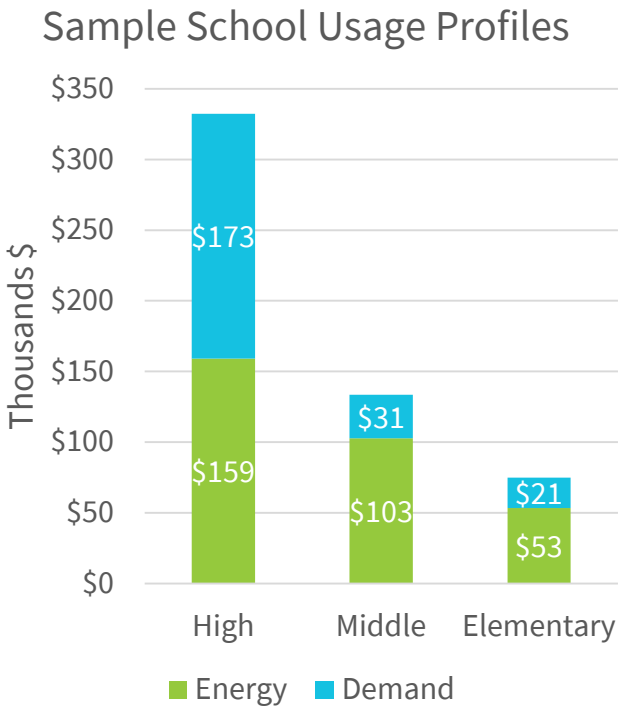
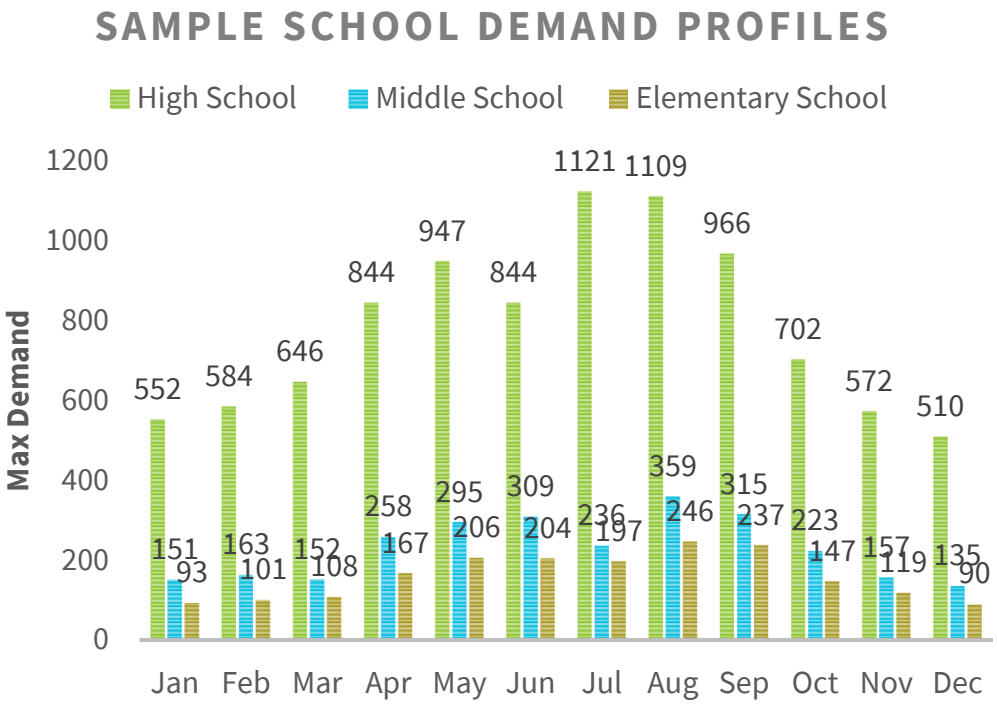
Demand Charges





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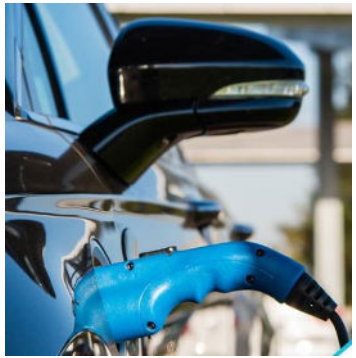
Value Added:

- Pre-construction Community Outreach ✓
- **STEM Curriculum** sei ✓
- STEM based Games LEGENDS OF LEARNING ✓
- Career Fairs ✓
- Community Ribbon Cutting Event ✓
- On-campus Monitoring Dashboard ✓
- Project Photography ✓
- Press Release & Customer Testimonials ✓
- Post-Solar Savings Analysis ✓
- Solar workstations ✓
- EV Charges ✓



At NO COST to you!

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STEM Curriculum

ENERGIZE SCHOOLS
A PROGRAM OF SEI

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Opportunities to Collaborate

Project-based curriculum

Green Careers Conferences

Teacher trainings

The Energy Challenge

Earth Day Campaign Contest

Green Teams

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Campus as a Living Lab

On-site Technology

Project-based Curriculum

Career Focus

=

Living Lab Experiences

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Curriculum Highlights

- Solar Certificate
  - SOLAR SYSTEM DESIGN
  - SOLAR SYSTEM FINANCIAL ANALYSIS
- Energy and Environmental Design Course
  - ENERGY STORAGE
  - ZERO NET ENERGY
  - ENERGY AUDITING
- Project Based Units
  - SOLAR USB CHARGER BUILDING
  - GREEN BUILDING

*ADAPTABLE TO DISTANCE LEARNING

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Quick Poll

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Energy Auditing

1. Appliance Investigation
   - Audit your space, pick one appliance to investigate.
2. Power
   - How much power does your appliance use?
   - Does it have a phantom load?
3. Energy Impact
   - How much does the appliance cost for you to run per year?
   - How much carbon is emitted?
4. Conservation & Efficiency
   - What is your energy conservation slogan?

Appliance	Operating Load	Phantom Load
Coffee Maker	1100W	3W
Cell Phone Charger	5W	0W
Printer	1200W	6W
Projector	25W	2W
Hair Dryer	1800W	0W

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The Energy Challenge

Individual Weekly Bilingual Energy Challenges

Team Lead Virtual Conservation Campaigns

Prizes

- Energy Specialist Certificate
- $3,000 in prizes for weekly submitters and campaign winners!

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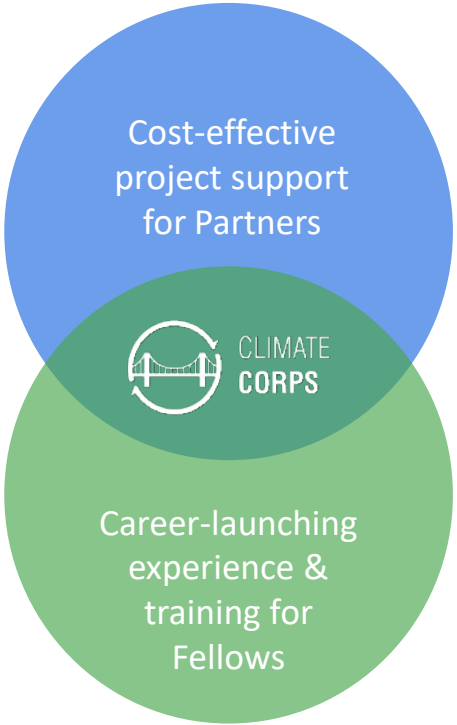
Climate Corps

- Team capacity building
- Turnkey recruitment & employment
- Tailored project scoping, tied to quantifiable outcomes
- Fellow supervision support
- Best practice sharing



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Microgrids*

What is it and how it works?

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Normal Operations

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Wildfires and Resiliency

2002-2020 (California)

- WILDFIRES HAVE CAUSED 2/3 OF EMERGENCY SCHOOL CLOSURES
- 34,183 CUMULATIVE SCHOOL DAYS MISSED DUE TO FIRES
- THOUSANDS OF SCHOOLS STATEWIDE HAVE EXPERIENCED SHUTDOWNS
- SINCE 2015: INCREASED DISRUPTION TO PUBLIC EDUCATION COMPARED TO PRIOR YEARS
    - MORE OFTEN
    - MORE WIDELY
    - FOR LONGER PERIODS

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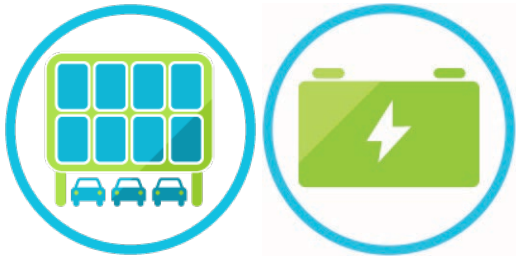
Power Outage

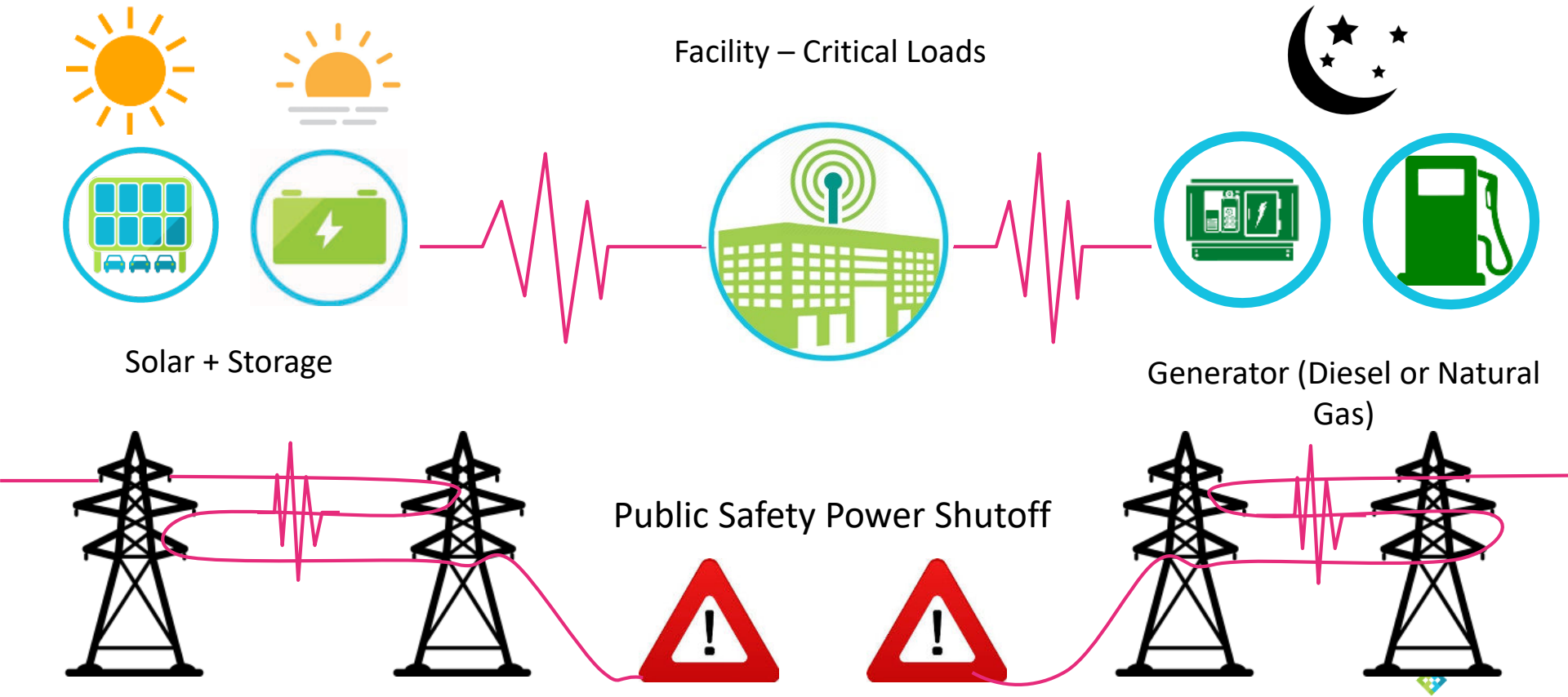


Solar + Storage

Facility

Solar shuts down for safety in a power outage

Microgrid Mode



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Microgrids

- Opportunities

  RESILIENCY

  REDUCE OPERATIONAL RISK

  ENERGY EXPENSE SAVINGS

  SUSTAINABILITY LEADERSHIP

  ISLANDING CONTROLLER PACKAGES

- Challenges

  CRITICAL LOAD ANALYSIS

  - Identify Critical Loads
  - Retrofit & Isolate Circuits

  ADDITIONAL SOLAR PROJECT SCOPE

  - On-Site Generator
  - Microgrid Technology

Today, we discussed

- ✓ Incentives available: timing is of the essence
- ✓ Different procurement options (pros and cons).
- ✓ Energy storage: Demand charges and the benefits to pair it with solar.
- ✓ Inspire collaborative opportunities: Campus as living lab

* Microgrids: how it works, and how increase resiliency

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Next Steps

Options:

1. Contact Brian Taylor directly at btaylor@forefrontpower.com
2. Follow-up e-mail with a link: 15-min chat with Brian Taylor
    - Q&A
    - **Free** Solar and Energy Storage Evaluation

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Questions?

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