



NORTHWEST
STRATEGIC ENERGY MANAGEMENT
COLLABORATIVE

Navigating Changing Seas

Fall Workshop

October 19-21, 2021

- Virtual -

Speaker Introductions



Paul Johnson



Jake Pollack



SEI Program Background: Workforce Development



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**STRATEGIC ENERGY MANAGEMENT
COLLABORATIVE**



sei

Mission

Building leaders to drive
sustainability solutions

Vision

A resilient world where
all communities thrive

SEI's Education & Workforce Pathway



- K-12 Learning Through Action
- College Campus, Academics & Internships
- Career Technical Education
- Early Workforce Experience



The engineers, innovators, entrepreneurs, and leaders we need to thrive on planet Earth





**CLIMATE
CORPS**

A PROGRAM OF SEI

Bridge-to-career fellowship
program that recruits and
places rising climate
professionals with local
governments, non-profits,
educational institutions,
and for-profit partners to
implement sustainability
and resiliency projects





**CLIMATE
CORPS**

A PROGRAM OF SEI

10

years of matching Fellows
with organizations

800+

high-impact sustainability
projects implemented

600,000

hours of service

85%

of Fellows continue in
the field after fellowship

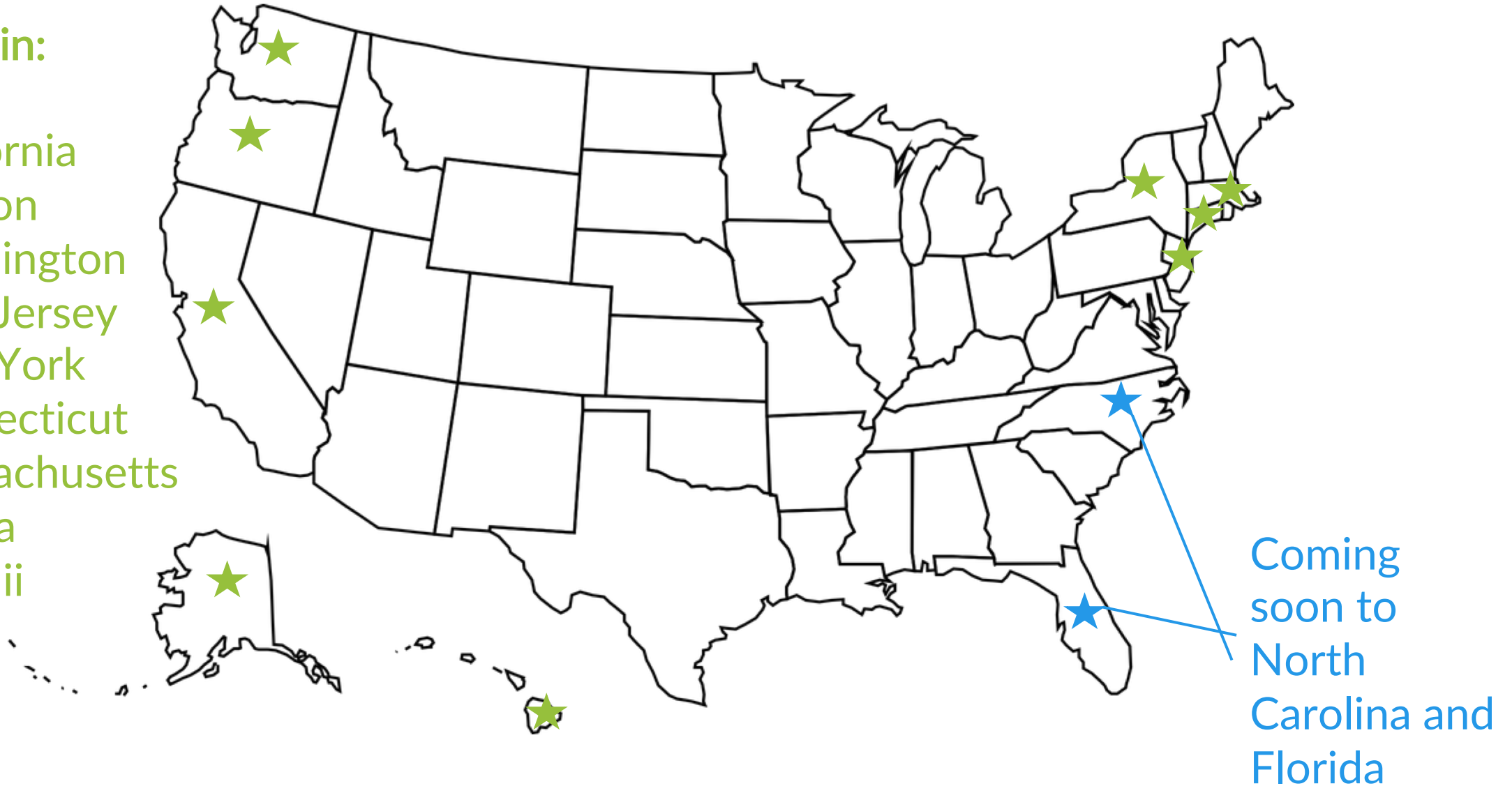


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Climate Corps National Expansion

Activated in:

- ★ California
- ★ Oregon
- ★ Washington
- ★ New Jersey
- ★ New York
- ★ Connecticut
- ★ Massachusetts
- ★ Alaska
- ★ Hawaii



Regional Focus: Network of Practice, Local Expertise



Multi-year engagement model:

2019-20: first Fellow at PAALF

2020-21: Pilot cohort through PSE (5)

- King County
- North Kitsap School District
- Kitsap Bank
- Bellevue College
- Kaiser/JLL

2021-22: PSE and Meyer (10-12)

2022-23: continued expansion



Fellow Success Stories



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King County: Energy Efficiency & Conservation Database

- Tracks project opportunities and details
 - Provides accessible entry form
 - Sorts data by any field or category
 - Captures estimated costs and energy savings
- Inventories fossil fueled equipment
 - Output, operating details, install date



EE&C Opportunity Form

King County Site Efficiency and Conservation Opportunities

Record # 145

Site Information

Entry Date: 4/7/21 Department: DNRP
Division: Parks & Recreation
Facility Type: District Office
Facility Name: Cedar River

Equipment Information (if relevant)

Equipment Type: Year Installed: 0
Size (output): 0 Efficiency/SEER: 0
Manufacturer/Model/Seria:

Efficiency Opportunity Information

Location at site: Shop
Equipment Category: Outdoor lighting
Topic/Issue: Photocell control
Details/Solution: Confirm the outdoor shop floodlight photocell is operating properly. On during day. Data from site visit.

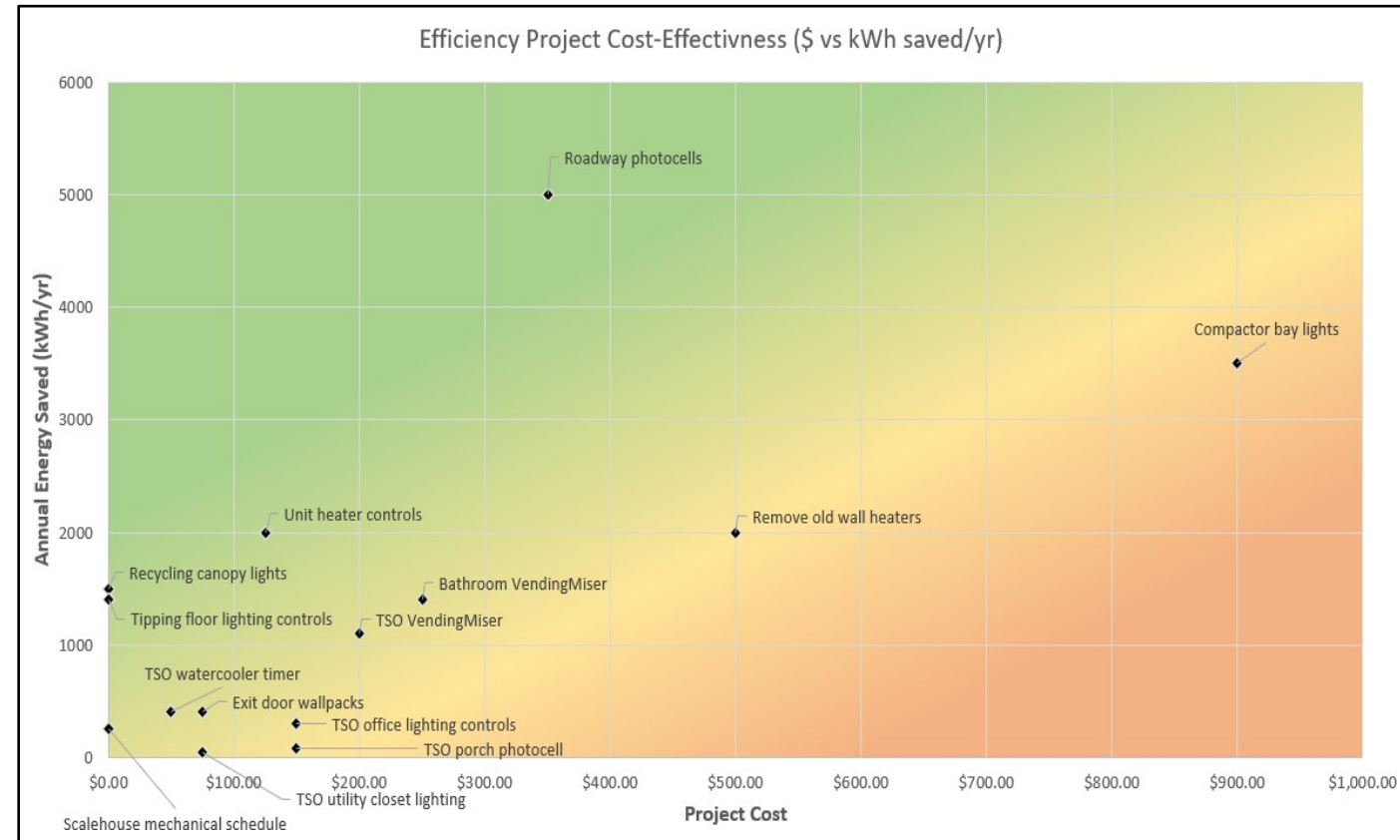
Estimated Cost: \$50
Implementation Cost Type: No/Low
Energy savings in reference to described current system: 15-30%
Potential gross energy savings: 200 kWh/yr
Difficulty to implement: Low
Estimated Payback Range: 2-15 yrs
Lifecycle Cost Effective? ☒
Follow up with staff? ☐
Photo/Attachment

Record: 138 of 140 No Filter Search



King County: Efficiency Project Roadmap

- Data and site summary
 - Includes site details and most relevant info from the Database
- Cost-effectiveness charts
 - Show the cost vs energy savings relationship
 - Helps prioritize projects and plan for capital expenditures
- Project timelines
 - Begin to plan out when and how projects can best be implemented



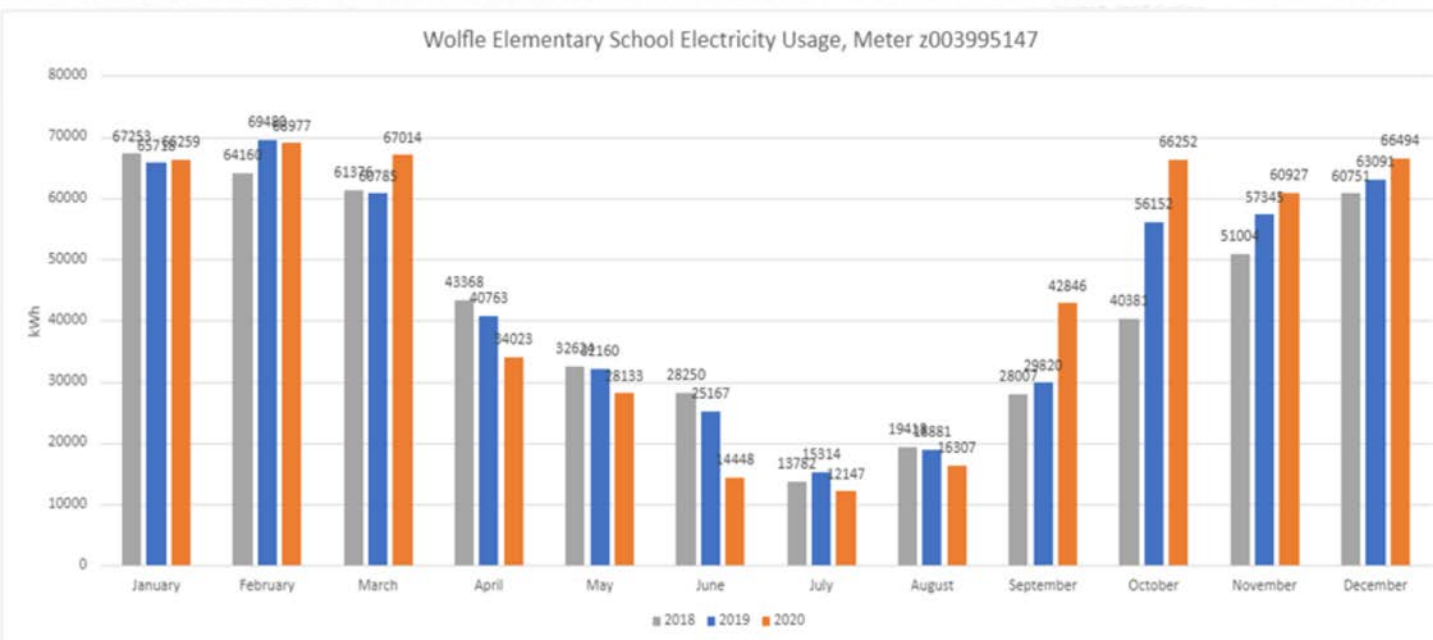
Capital Projects



I worked as a project manager on infrastructure upgrades across NKSD's 13 school campuses. Major projects included:

- HVAC replacements
- LED retrofits

2 million kWh/yr equivalent



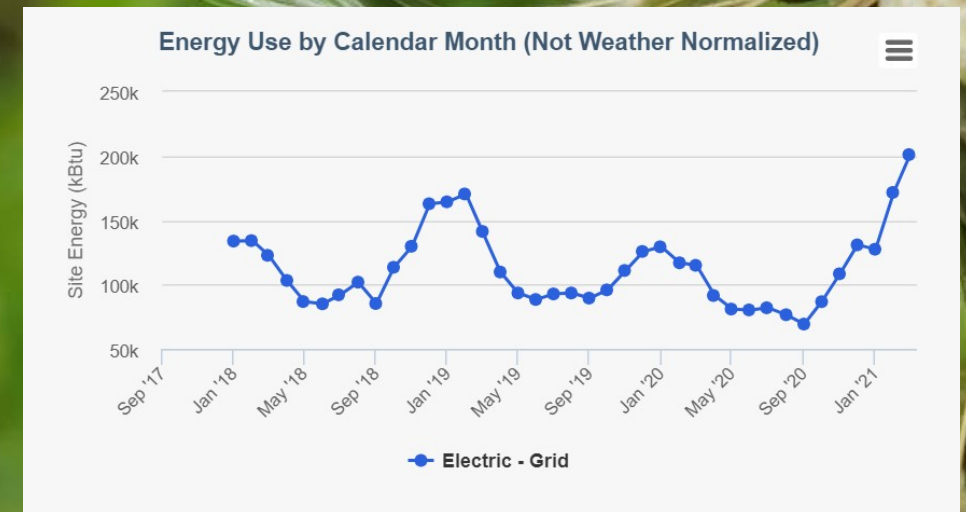
As the sole energy officer, I interfaced between NKSD and Puget Sound Energy to scope an initiate incentive program agreements

I inventoried buildings, tracked energy usage, and am establishing EUIs for all campuses to aid in strategic planning

Implementation



- Created a utility/energy usage dashboard reporting tool on Energy Star Portfolio Manager utilizing previously collected KB facility data as a result of collaboration with PSE.
- Support Kitsap Bank's participation in CSEM program.



Site ID	Site Name	Address	In person attendance (Y/N/Other)	Number of workers	Workers on Site	Operating Hours
46	6th and Warren Location (Training and Deposit Support)	676 6th St, Bremerton, WA, 98337	Yes	17	5	8:30 am - 5:30 pm
8	Bainbridge Island	10140 NE High School Road, Bainbridge Island, WA, 98110	Yes	4	3	8:30 am - 5:30 pm
20	Bethel and Lund	3324 Bethel Road SE, Port Orchard, WA, 98366	Yes	7	7	8:30 am - 5:30 pm
22	Bonney Lake	19371 WA-410	CLOSED			
50	Bremerton	607 Pacific Avenue, Bremerton, WA, 98337	Yes	79	32	8:00 am - 7:00 pm
2	East Bremerton	3425 Wheaton Way, Bremerton, WA, 98310	Yes	7	7	8:30 am - 5:30 pm
11	Kingston	8190 NE State Hwy 104, Kingston, WA, 98346	Yes	5	5	8:30 am - 5:30 pm
1	Main Branch	619 Bay St, Port Orchard, WA, 98366	Yes	52	29	7:00 am - 6:00 pm
1	Main Branch (Drive up)	625 Bay St, Port Orchard, WA, 98366	No	0	0	N/A
14	Poulsbo	19725 7th Ave NE, Poulsbo, WA, 98370	Yes	12	10	8:30 am - 5:30 pm
4	Silverdale	10488 Silverdale Way NW, Silverdale, WA, 98383	Yes	13	10	8:30 am - 5:30 pm
3	South Park Village	1700 Village Ln SE, Port Orchard, WA, 98366	Yes	4	4	8:30 am - 5:30 pm

This only contains equipment.

Energy Projects at Bellevue College

C Building Energy Retrofit

- Replace windows, lighting, and HVAC system

CSEM

- Ongoing contribution to CSEM program through trainings, newsletters, and reports

Portfolio Manager

- Updated PM account to auto-update through PSE MyData & be ready for regulatory reports

CAP

- Updating CAP with assistance of Brailsford & Dunlavey Inc. consulting

Student Housing Energy & Water Challenge

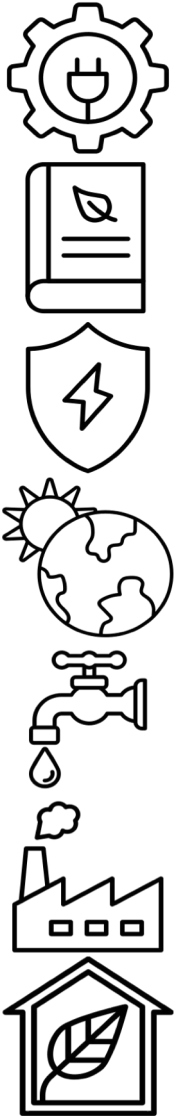
- Designing Energy & Water challenge to implement in housing building with goal of energy and water use reductions

GHG Reporting

- Beginning GHG reporting for FY 19-20

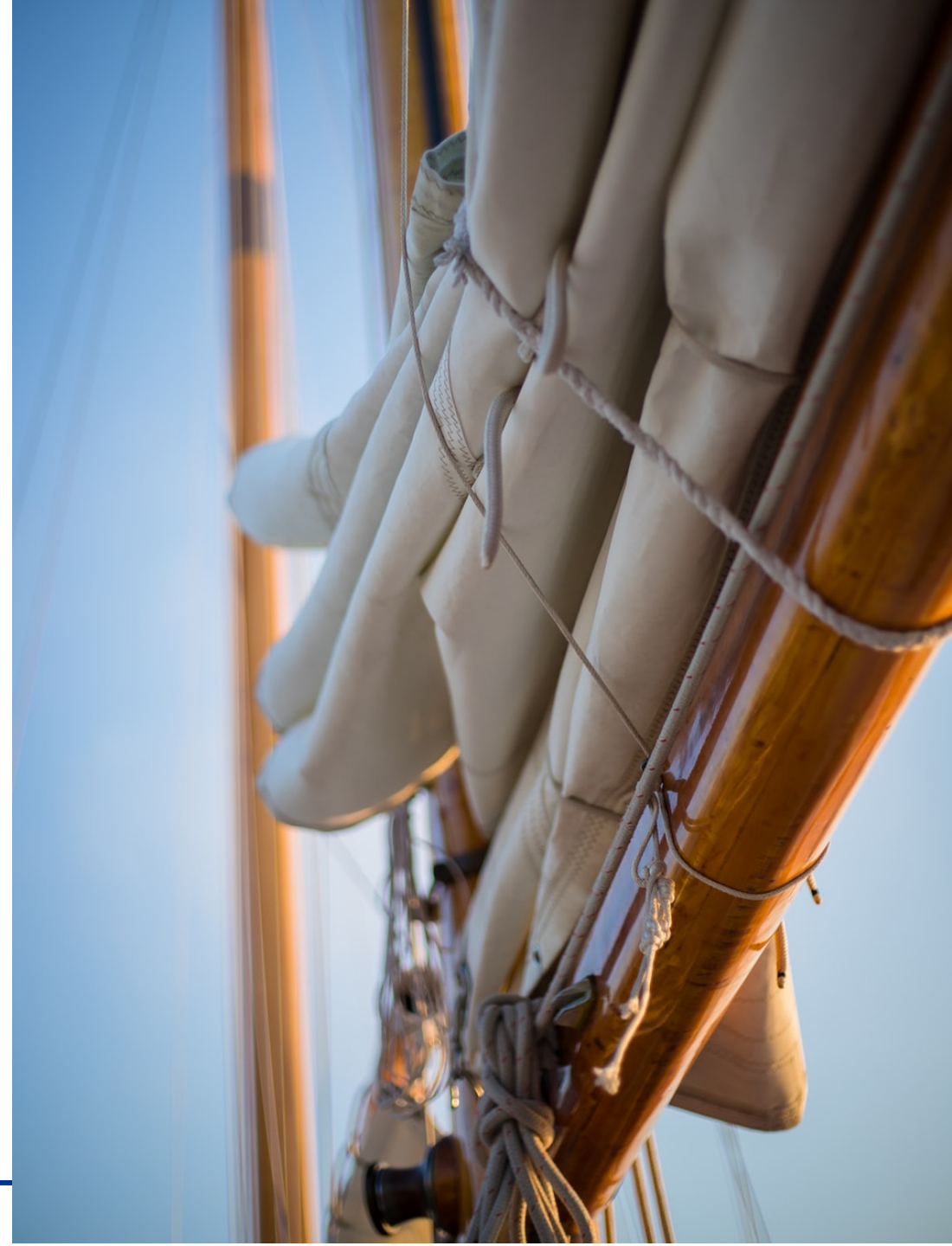
Energy Treasure Hunt

- Designing Energy Star Treasure Hunt procedures for BC campus



Climate Corps Summary

- Next steps for potential partners
- Fellow benefits and recruitment
- Green Practicum (O+M) pathway



How it Works



SEI completes MOU and scope with Partner



SEI hand-picks and screens applicants, Partner completes final interview



Fellow works full-time with host site, co-supervised between SEI and Partner



Fellows drive sustainability projects forward, while documenting outcomes

Standard Cycle
SEP - JUN

Half Cycle
JAN - JUN

Custom
ANY START
& DURATION



Climate Corps Fellow Benefits



Monthly Fellow trainings on the 2nd Friday of each month



Monthly meetings with Site Supervisors and your Fellow(s)



Consult on Fellow Scope, Performance Reviews, poster and metrics



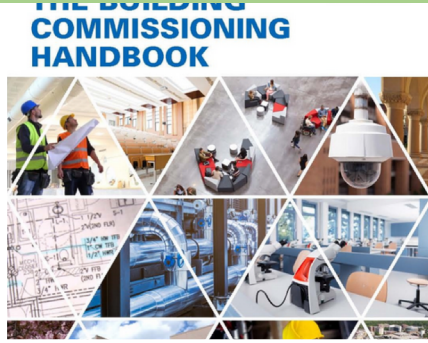
HR support as the employer to support Fellows and address challenges

*Fellows receive professional development (PD) in two ways:

- 1) Climate Corps monthly trainings and events
- 2) Up to 10% of site hours to be discussed and approved by site supervisors

HOW it WORKS: Address Performance Gaps

Throughout the Building Lifecycle



1 - Design/Construction

2 - Turnover

3 - Operations
and
Maintenance

4 - Asset Mgmt
and
Reinvestment

Value engineering
sacrifices sustainability
LEED goals not met

Building Documentation is
incomplete
Commissioning process
insufficient

Reactive vs Preventative
Maintenance
Operating decisions are not
data-based

Deferred maintenance
Obsolete technology-
poor integration
High cost of emergency
maintenance

Green Building Practicum



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Green Building Maintenance: Best Practices O&M



**Move away from
Reactive Maintenance**

Energy Efficiency Focused
Maintenance

Condition Based Maintenance

Preventative Maintenance

Move to Planned Maintenance





sei BUILDING LEADERS FOR A
RESILIENT WORLD

www.seiinc.org

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