

[Silicon Valley Clean Energy's](#) "Watts for Lunch" workshop was held on May 2nd, at the LinkedIn campus in Sunnyvale.

This workshop series was commissioned for SVCE's commercial and industrial customer community, providing a setting for peer-to-peer learning, networking and collaboration. Our May workshop was focused on **commercial building electrification and featured speakers from Point Energy Innovations, SHARP Development Company, and LinkedIn representing the points of view of engineer/designer, developer, and all-electric building owner/operator, respectively.**

Future events will continue to be constructed around SVCE's mission of strategic electrification and grid de-carbonization. We welcome input and suggestions for future topics!

Presentations and discussions from the May workshop are summarized below:

Point Energy Innovations – Peter Rumsey, Founder / CEO

- Effective building envelopes allow for lower cost HVAC and other building systems and enhance occupant comfort levels
- Heat pumps offer the greatest level of decarbonization while using almost 2/3 fewer total energy units compared to traditional NG boilers
 - Heat pumps using carbon-free/renewable electricity eliminate GHG emissions
- Engineering and design firms would do best to look for simple solutions
- Leading edge innovations are often overpriced initially
 - Efficiency of technology tends to increase as cost decreases
- Building controls are still not a total solution for decarbonizing

SHARP Development Company, Inc. – Kevin Bates, President and Owner

- For a zero-net energy (ZNE), all-electric retrofit, a developer can realize profitable returns due to added value of reduced operating expenses, above market rent, early lease-up, and additional leasable square footage
- Strategic use of insulation, ceiling fans, exposed interior concrete, electrochromic glass, and Southern-facing skylights lower Energy Use Index (EUI) by ~75%
 - Dramatically reduced needed size for both HVAC system and PV array
- ZNE and 'all-electric' are significant market differentiators- the new "Class A"
- Proven economics point to non-adoption as the greatest financial risk

LinkedIn – Peggy Brannigan, Global Program Manager, Environmental Sustainability

Able Engineering Services – George Ackerson, Chief Engineer

- Shared their experiences owning/operating a 40,000 SF all-electric building
- 1980's facility boasts new insulation, fans, smart controls, LEDs, skylights, HVAC, EV charging, and solar PV
 - ZNE certification in process
- A need to lower energy usage led to gamification of plug load savings to engage building occupants
 - Creating a contest led to a 23% reduction of energy use
 - Awareness and engagement led to cultural shift around sustainability

SVCE Update

- Completed first year of service in April 2018 with 97% enrollment rate
- Annualized savings of \$20M and 1.1 Billion pounds of CO₂
- Carbon free electricity now 6% less than PG&E generation rates
- SVCE looks to serve as proof of concept for an electrified world
 - Achieve goals by leveraging partnership with business, academia, and community
- Three primary areas of focus for decarbonization/electrification: Built environment, Mobility, Grid Optimization

SVCE Participation Survey

- SVCE found that attendees' feelings regarding building electrification are generally very positive at 4.25/5
 - Despite positive feelings on the subject, very few all-electric buildings were present in attendees' portfolios
- In free-response polling, attendees indicated the most appealing aspects of building electrification were becoming carbon-free, lower TCO, employee health and wellness, and applicability to existing buildings.
- Interestingly, the least appealing aspects of electrification as reported by attendees were coincident peak demand times and the overall impact to the grid
 - Other categorical responses were the high initial start up cost, political will and changing perceptions, and ongoing maintenance costs
- Attendees were asked in which of the following categories they would like assistance with electrifying their facilities from 1 (not at all interested) to 5 (very interested):
 - Design grants – 4.15/5
 - Product rebates – 4.5/5
 - Education and awareness – 4.5/5
 - Technical/engineering services – 4/5
 - Financing – 3.75/5
- Attendees were asked to rate this Watts For Lunch event from 1 (awful) to 5 (awesome) – 4.75/5

Next SVCE 'Watts for Lunch' Workshop – Energy Storage

- Targeting late September to mid October 2018
 - Watch for announcements via email
- Questions or suggestions – please contact Peyton Parks
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