

**CITY OF SEBASTOPOL  
CLIMATE ACTION COMMITTEE  
AGENDA ITEM**

**Meeting** 11-January-2023

**Submitted By:** Energy Working Group

**Topic:** Workplan Project – Workplace Charging

**RECOMMENDATION:** That the Climate Action Committee Include in its 2023 Workplan a project to implement one or more workplace charging pilots.

The project focus is in finding the institutions that are creating such pilots and attract them to sites within Sebastopol. This would include coordinating with any of Sonoma Clean Power, PG&E, RCPA, and/or with others that are promoting such pilots.

**GOALS/RESULTS:** The electric grid as it transforms to utilizing more renewables that cannot be scheduled, is already experiencing midday periods with excess power being generated. The 20<sup>th</sup> century grid only had to control (schedule) supply to meet uncontrolled (by consumer) demand. The 21<sup>st</sup> century renewable-centric grid requires control of demand as well.

The goal of this effort is to demonstrate where a major demand can be shifted to time periods where the larger portion of solar energy is available – during the daylight. This is the primary time that workplaces are active.

AS well, workplace charging will incentivize drivers to transition more quickly to electric vehicles.

**BACKGROUND/DISCUSSION:** The electric grid is experiencing two major transitions. First the predominant supply is transitioning from schedulable fossil-fueled power plants to renewables that cannot be scheduled. Secondly, the amount of electric demand is increasing by a large percentage.

Through energy conservation measures (e.g. new appliances, use of LEDs, improved building performance) during a period of growing population, California’s energy use has actually dropped. However, this trend is guaranteed to reverse as electric vehicles begin to replace fossil fueled vehicles. In 2020, 27% of Bay Area new car sales were for plugin electric vehicles. The growth in this sector is forecast to grow rapidly.

The typical Electric Vehicle, while it is charging consumes between 5 and 10 times the energy used by a typical home. At times, though peak load in a home does make the same demand, it is typically only for a few seconds. In the case of charging an EV, this demand continues for 1 to 6 hours. So, both the amount of energy that California will require and the amount of power available during those charge periods will increase.

Today, because of existing tariffs, most EV charging occurs after midnight and before 6AM. This is the period during which California’s grid is predominantly serviced by fossil-fueled power plants. (The existing tariff was introduced in order to support consumption of California’s nuclear plants which could not throttle down their output. Only 1 Nuclear plant now remains active in the state.) At the same time, there are periods today in the middle of the day when PG&E has been forced to pay other utilities to take energy from the California grid. This is because spikes of up to 2,000 mW in 10 minutes have occurred as the sky clears over an area of intense solar panel installation.

Increasing the demand during the peak period of renewable energy supply will reduce the reliance and cost of the energy storage that must be developed to support this transition. That is one reason the CEO of SCP suggests that workplace charging is one of the solutions.

At the same time, the availability of workplace charging has been demonstrated to act as an incentive in accelerating the transition to electric vehicles. SCP in building its new corporate headquarters, provided charge stations at each employee parking space. At move-in to their facility, only 3 Evs made use of this capability. At the end of the first year in the facility, 32 vehicles were regularly charging during work hours. Besides being offered as an employee benefit, the availability of workplace charging made owning an EV practical for those employees living in apartments and other facilities that did not offer charging at home.

Initial investigation has shown that both SCP and PG&E are commencing pilot programs to demonstrate the utility of workplace charging.

Sebastopol does have limited industry, but facilities such as schools, medical centers, and concentrated retail (the Barlow) might be attractive to these programs.

**ALIGNMENT:** The transition off fossil-fueled vehicles and to renewable energy are supported in Sebastopol Climate Action Framework and the Sebastopol General Plan

**From the Sebastopol Climate Action Framework**

- BE3. Expand the installation of solar panels and other renewable energy sources, both locally and in partnership with other entities in Sonoma County, to further decarbonize Sebastopol’s electricity supply.
- BE6. Ensure energy sources are reliable during extreme weather conditions.
- T4. Improve and electrify public transportation options.
- C5. Improve community preparedness for climate-influenced hazards.
- CO1. Integrate climate and equity considerations into every policy and action.
- CO4. Provide transparent and bold leadership on climate.

**From the Sebastopol General Plan**

- CIR 3: Provide a Transportation System that Promotes the Use of Alternatives to the Single-Occupant Vehicle and **Facilitates the Efficient and Environmentally Responsible** Movement of People and Goods Within and Through the City of Sebastopol
- COS2. Reduce Emissions of Greenhouse Gases from City Operations and Community Sources
- COS9. Promote Conservation of Energy and Other Natural Resources
- EV1: Encourage Economic Development that Broadens the City’s Employment Base, Attracts High-Quality Jobs, Provides Services and Goods that Reflect the City’s Values, and Increases the City’s Tax Base
- LU 9: Increase Industrial Employment in Sebastopol While Maintaining the Quality of the Environment

**TIMING:** The initiatives by the utilities are currently in process. Work on promoting Sebastopol locations needs to be in process early on in order to attract these two organizations to the opportunity Sebastopol provides.

**PUBLIC COMMENT:** This document has not yet been posted in a public forum. Consequently, no public comment has yet been submitted.

**PUBLIC NOTICE:** This item was noticed in accordance with the Ralph M. Brown Act and was available for public viewing and review at least 72 hours prior to scheduled meeting date.

**FUNDING NEEDS – Staff Estimate:** Until the precise form and methods for the tour are determined, the full cost (and Sebastopol’s contribution to it) cannot be determined.

Some funding needs (not yet quantified) can be assumed for the development of the project as the steering team is assembled to support meeting and organizational costs. City staff will be required for any formal submissions that are limited to public entities.

Funding Source(s): Sebastopol Operational Budget; department TBD

**STAFF COMMENTS/RECOMMENDATION:** [ to be completed by staff before reading at SCAC]

**ATTACHMENT(S):**  
none