



**OFFICE OF THE CITY MANAGER**

CITY HALL

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**CITY COUNCIL STAFF REPORT**

Meeting: December 6, 2016

Subject

Consider upgrading the City's municipal electric accounts to 100% renewable and carbon free GreenPrime service with Silicon Valley Clean Energy upon service launch, which is scheduled to occur in April 2017.

Recommended Action

Direct Silicon Valley Clean Energy (SVCE) to upgrade the City's electricity accounts to GreenPrime service, upon service launch in April 2017.

Background

Cupertino's Climate Action Plan (CAP), identifies more than 200 actions to reduce greenhouse gas emissions. Of all the actions, shifting our energy portfolio to lower Greenhouse Gas (GHG) sources is the single most impactful action featured, with Community Choice Energy (CCE) identified as the key approach to accomplishing the shift. Specifically, successful implementation of Measure M-F-1-2, (Create Community Choice Energy option) assumes that 100% of our municipal operations electricity use in 2020 comes from 100% renewable or zero carbon sources via a CCE program. The CAP estimates that the emissions reduction associated with the City purchasing its electricity from zero carbon sources for its municipal facilities would result in a greenhouse gas reduction of 870 MTCO<sub>2e</sub> per year.

Following CAP adoption, the City Manager prioritized the study of Community Choice Energy by utilizing Council approved funding budget to support conducting an initial assessment and technical feasibility study of a CCE program in partnership with Sunnyvale, Mountain View and Santa Clara County. On December 1, 2015, Council approved an ordinance (Ordinance No. 15-2138) and resolution (Resolution No. 15-111) to join Silicon Valley Clean Energy (SVCE), making Cupertino the first of 12 communities to approve the actions required to form and participate in the Joint Powers Authority. Subsequently, other communities joined and SVCE was officially created and formed in March 2016, by the cities of Campbell, Cupertino, Los Altos, Los Altos Hills, Los Gatos, Gilroy, Monte Sereno, Morgan Hill, Mountain View, Saratoga, Sunnyvale and the unincorporated areas of Santa Clara County.

As a CCE, SVCE assumes responsibility from PG&E for purchasing and/or generating electricity, while PG&E continues to provide transmission, distribution, and billing services. As before, PG&E remains responsible for electric service reliability and management of outages.

The electricity bill continues to come from PG&E, but will reference SVCE for line item costs related to electricity generation.

Since the inaugural meeting of the SVCE Board of Directors in April of 2016, the Board hired a Chief Executive Officer, and approved new key staff positions with recruitments for these positions currently underway. More recently, the Board has been guiding negotiations with power suppliers, to procure renewable and carbon free electricity at costs competitive with what residents and businesses pay for PG&E power today.

SVCE will be offering two new options for local residential and commercial electricity customers at competitive rates. The default power supply mix for SVCE's GreenStart service will be 100% carbon free, sourced from 50% eligible renewable power sources and 50% carbon free sources (mostly large hydroelectric power). Customers automatically enrolled in SVCE's service will receive GreenStart service. By comparison, PG&E's current electric service is approximately 30% eligible renewable, 60% carbon-free (mostly from PG&E nuclear generation at Diablo Canyon) and the remainder 40% is from conventional generation. According to SVCE, the estimated cost for GreenStart service will be approximately 1% less ( \$0.001/kWh) less expensive than PG&E service.

SVCE will also offer an 100% eligible renewable, carbon free service called GreenPrime. GreenPrime will be sourced entirely from eligible renewable resources as defined by the State of California. According to SVCE, customers will have the option to upgrade to GreenPrime service, at an estimated premium of \$0.008/kWh to PG&E's current service. Exact program rates will be approved by the SVCE Board of Directors in January/February of 2017.

#### Analysis & Discussion

Both GreenStart and GreenPrime are 100% carbon free services. Either service helps the City to significantly reduce carbon emissions from its municipal operations, and address important sustainability goals. However, by upgrading from GreenStart to GreenPrime for municipal operations, the City of Cupertino is demonstrating additional environmental leadership. GreenPrime is generated from 100% renewable, carbon free sources, primarily solar and wind farms in California and elsewhere on the western grid. For this reason, staff recommends that Council direct Silicon Valley Clean Energy (SVCE) to upgrade the City's electricity accounts to GreenPrime service, upon service launch in April 2017.

Opting up to GreenPrime further expands demand for generation from these new and competitive renewable energy sources. Municipal adoption of GreenPrime serves as the highest leadership example for local residents and businesses considering their energy sourcing

options, similar to examples already set by the City for our plug-in and electric fleet vehicles, energy conservation, Green Business certified buildings, solar arrays on municipal buildings, Environmental Education Center green building and much more.

As seen in Table 1, based on the City’s municipal electricity consumption of 3,364,000 kWh for calendar year 2015, opting up to GreenPrime is estimated to increase the City’s electricity costs by about \$27,000 per year, less than 5% of total electricity costs.

Table 1. Annual Cost Comparison Estimates Between PG&E, GreenStart, and GreenPrime,

	GreenStart (50% renewable, 100% carbon free)	GreenPrime (100% renewable, 100% carbon free)
Compared to PG&E	\$0.001/kWh savings \$3,364/yr savings	\$0.008/kWh additional \$26,912/yr additional

Sustainability Impact

Both GreenStart and GreenPrime options would reduce GHG emissions associated with the City by providing 100% carbon free electricity generation. Upgrading all municipal electric accounts to 100% renewable energy, offered with GreenPrime, will support long-term energy solutions while reducing negative environmental impacts associated with the City’s municipal electricity consumption. As noted above, it would help to implement the City’s Climate Action Plan measures, particularly Measure M-F-1-2: Create Community Choice Energy option. Successful implementation of this measure assumes that 100% of municipal operations electricity use in 2020 comes from 100% renewable or zero carbon sources via a CCE program like Silicon Valley Clean Energy. The CAP estimates that the emissions reduction associated with the City purchasing its electricity from zero carbon sources for its municipal facilities would result in a greenhouse gas reduction of 870 MTCO<sub>2e</sub> per year.

Fiscal Impact

Using 2015 usage data as a baseline, opting up the City’s municipal electric accounts to GreenPrime is estimated to cost about \$27,000 more per year when compared to what the City would normally pay PG&E. If the City’s accounts will be enrolled in SVCE in April 2017 , it is expected that current budgeted funds will be enough to cover the increase associated with opting up to GreenPrime for the remainder of the fiscal year.

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