

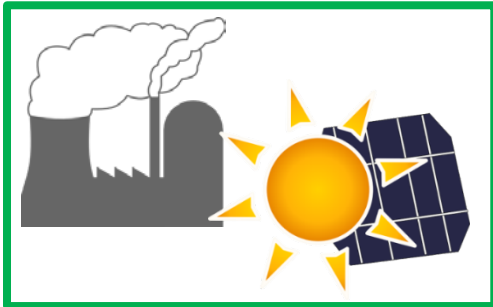


Update on Community Choice Energy Cost for Caltrain Electricity Service

Board of Directors
November 1, 2018
Agenda Item 4 (k)

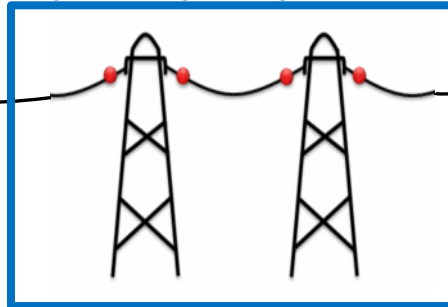
How Community Choice Energy (CCE) Works

Energy Generation (Power Plants)



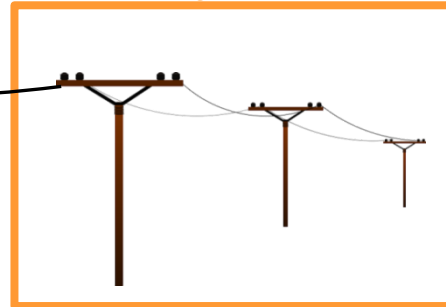
Energy Delivery (Transmission System)

Higher voltage, Longer distance



Energy Delivery (Distribution System)

Lower voltage, Local distance

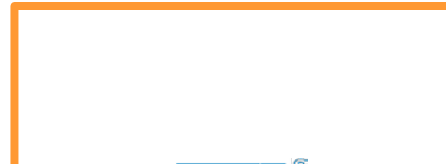


Stations,
Signals,
CEMOF



Traction Power
Substations
for EMUs

Previous:



Current
Path:









Board Actions

- **June 2016**
 - Board took action to participate in CCE
- **March 2017**
 - Board opted for 100% renewable option at CCE
- **Fall 2018**
 - Staff evaluates 1 year actual CCE billing data
 - Update Board

Current Caltrain Energy Sources

(as of March 2017)

Provider	Type	Current
 (note 1)	Investor-Owned Utility	50%
 <i>Same Service • Cleaner Energy</i>	Community Choice Energy	16%
	Community Choice Energy	21%
	Community Choice Energy	7%
	Municipal Utility	4%
	Municipal Utility	2%

Note 1: PG&E is the current energy provider to San Jose Caltrain meters

JPB CCE Bills Compared to PG&E Rates







- The actual cost of Community Choice Energy renewable energy options is 2.1% more than PG&E's default service.
- This is slightly below initial projections of a 2.8% higher cost.

Total Electricity Cost Comparison (June 2017 through May 2018)

Total Electricity Use	PG&E + Municipals Estimated	PG&E + CCAs + Municipals Actual	% Cost Difference	\$ Cost Difference
7,262,074 kWh	\$1,329,251	\$1,357,442	2.1%	\$28,191

Proposed Caltrain Energy Sources

(San Jose Clean Energy provides electricity to San Jose Caltrain meters)

Provider	Type	Current
 <p>SAN JOSE CLEAN ENERGY A Program of the City of San José</p>	Community Choice Energy	50%
 <p>cleanpowerSF. Same Service • Cleaner Energy</p>	Community Choice Energy	16%
 <p>PENINSULA CLEAN ENERGY</p>	Community Choice Energy	21%
 <p>SILICON VALLEY CLEAN ENERGY</p>	Community Choice Energy	7%
 <p>CITY OF PALO ALTO UTILITIES</p>	Municipal Utility	4%
 <p>SILICON VALLEY POWER. CITY OF SANTA CLARA</p>	Municipal Utility	2%

San Jose Clean Energy Cost

- In early 2019 Caltrain will have the opportunity to participate in San Jose Clean Energy. Caltrain will have option to enroll in the 100% renewable energy option, as Caltrain has done for its other accounts. San Jose's 100% clean energy service is expected to cost 5.6% over PG&E's default service.

Option	% Renewable Energy	Estimated Cost Difference Compared to PG&E at SJ Meters	
		%	\$
PG&E Default (with PDP)	33%	0%	\$0
SJCE Total Green	100%	+ 5.6%	+ \$36,123



Summary

Electricity Service		% RE	Annual Cost Difference		
			% more than PG&E	Cost of Option	Cost Including Option
PREVIOUS	PG&E Default	33%	0%	\$0	\$1,329,251
CURRENT	2017 Cost CCAs PG&E in San Jose	65%	+2.1%	\$28,191	\$1,357,442
PROPOSED	All CCAs (including SJCE Total Green)	100%	+ 4.8%	\$64,314	\$1,393,565

Additional Considerations

- In September 2018 California enacted SB 100 which requires the state's electricity to come from 100% GHG-free sources by 2045. This will significantly change the energy landscape within California.
- This cost estimate does not account for Caltrain's future electricity consumption as a result of CalMod, which is anticipated to increase Caltrain's electricity consumption tenfold. Staff is evaluating energy options post-Electrification.

Staff Recommendation

Staff Coordinating Council (SCC) recommends the Board continue Caltrain's participation in the Community Choice Energy (CCE) Programs, and elect to opt in to the new San José Clean Energy (SJCE) program.

Questions