



The Nuts and Bolts of Community Choice Energy In California

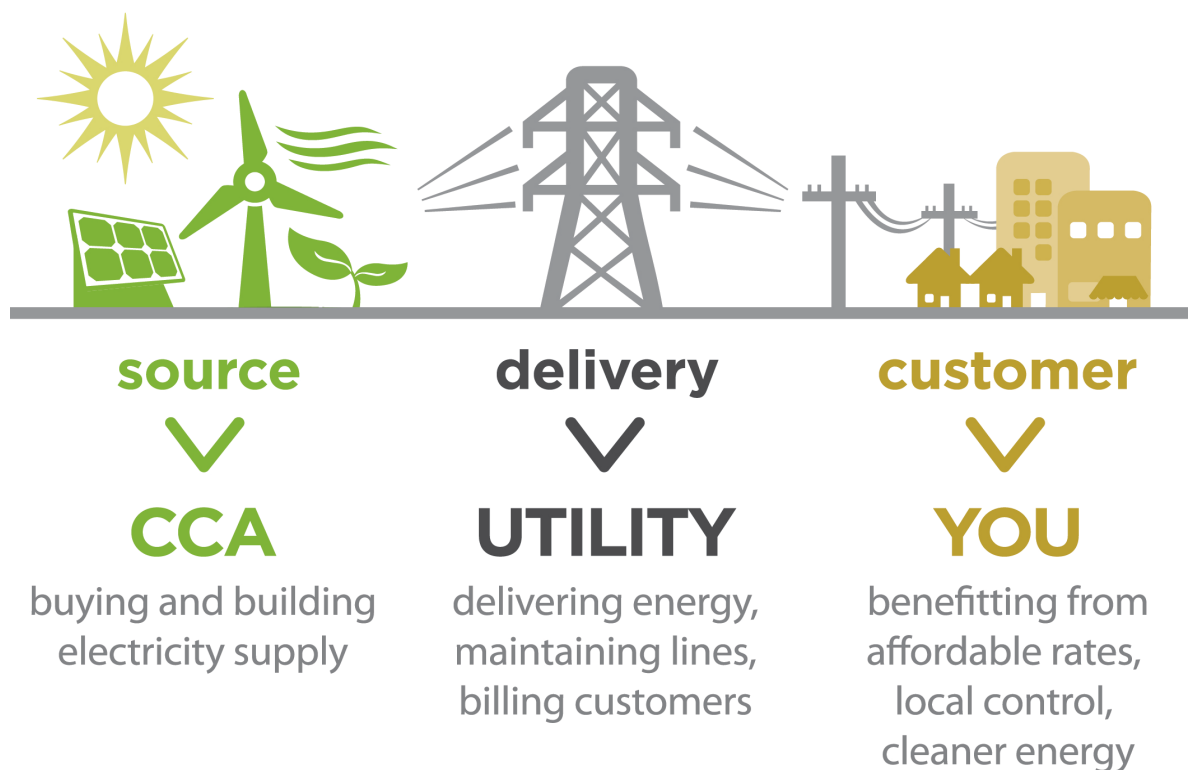
Pre-Forum Webinar – May 13, 2015

What is CCE?

CCE leverages the market power of group purchasing and local control.

CCE allows communities to pool their electricity demand in order to purchase and develop power on behalf of local residents, businesses, and municipal facilities.

How Local Energy Aggregation Works



CCE Around the Country



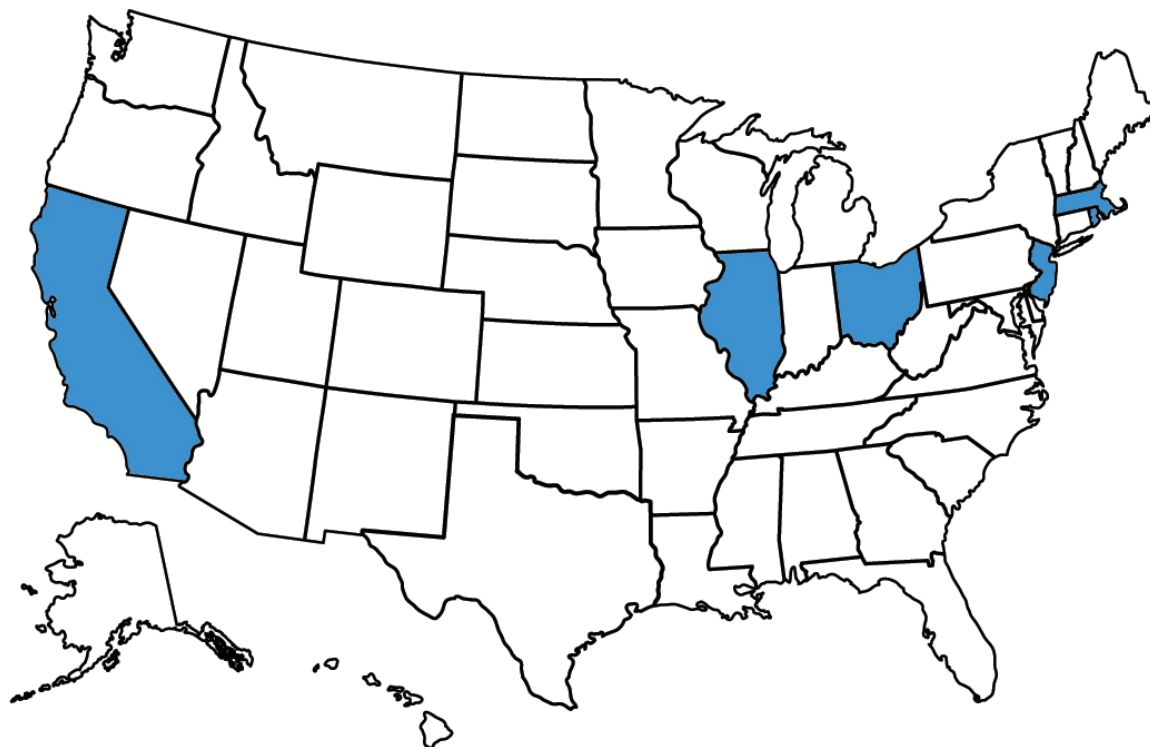
Authorized by CA Assembly Bill 117 in 2002

CCAs in 7 States

- California
- Illinois
- Massachusetts
- New Jersey
- Ohio
- Rhode Island
- New York

Under

Consideration:
Utah, Delaware,
Minnesota



Why is CCE So Powerful?



- Responsive to *local* environmental and economic goals
- Offers consumers a choice where none currently exists
- Revenue supported, not taxpayer subsidized
- Stable, often cheaper, electricity rates
- Allows for rapid switch to cleaner power supply and significant GHG reductions
- CCE is an energy integrator; works well with other energy programs
- Opens up new market opportunities such as EV charging stations, commercial battery storage, and other energy related technology.

Basic Program Features

“CCE: The Biggest Change You’ll Never Notice”

- Local governments participate by passing an ordinance
- Three administrative options; JPA is most common
- Utility continues to provide transmission and distribution, consolidated billing, customer service, grid maintenance
- CCE electric generation charges (including exit fee) appear as new line items on the customer bill; all other charges remain the same
- CCE becomes default electric provider. Customers receive a *minimum 4 opt-out notices over 120 days and can return to PG&E service any time.*
- CPUC certifies Implementation Plan; Oversees utility/CCE relationship and other requirements.



3 Administrative Frameworks

Your Choice Depends on Community Goals and Long-Term Objectives



Model A: Multi-Jurisdictional JPA

(e.g. Marin Clean Energy and Sonoma Clean Power; soon Monterey Bay, San Mateo and Alameda Counties...)

Model B: Single City/Enterprise Fund

(e.g. City of Lancaster)

Model C: Commercial Managed Service

(e.g. CA Clean Power, Good Energy)

Sample Energy Bill – Marin Clean Energy



ENERGY STATEMENT

www.pge.com/MyEnergy

Account No: 1234567890-1
Statement Date: 10/01/2013
Due Date: 10/22/2013

Service For:

MARY SMITH
1234 STREET AVENUE
SAN RAFAEL, CA
94804

Questions about your bill?

24 hours per day, 7 days per week
Phone: 1-866-743-0335
www.pge.com/MyEnergy

Local Office Address

750 LINDARO STREET, STE 160
SAN RAFAEL, CA 94901

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Important Messages

Your charges on this page are separated into deliver other than PG&E. These two charges are for deliver

Electric power line safety PG&E cares about your antennas at least 10 feet away from overhead power away, call 9-1-1 and then PG&E at 1-800-743-5000

Your Account Summary

Amount Due on Previous Statement	82.85
Payments Received Since Last Statement	82.85
Previous Unpaid Balance	\$0.00
Current PG&E Electric Delivery Charges	\$39.32
MCE Electric Generation Charges	\$42.81
Current Gas Charges	\$27.20
Total Amount Due	\$109.33

Total Amount Due \$109.33



ENERGY STATEMENT

www.pge.com/MyEnergy

Account No: 1234567890-1
Statement Date: 10/01/2013
Due Date: 10/22/2013

Details of MCE Electric Generation Charges

10/01/2013 – 11/01/2013 (31 billing days)

SERVICE FOR: 1234 STREET AVENUE

Service Agreement ID: 0123456789 ESP Customer Number: 0123456789

10/01/2013 – 11/01/2013

Rate Schedule:

RES-1

DEEP GREEN - TOTAL	508.000000 kWh @ \$0.0100	\$5.08
GENERATION - TOTAL	508.000000 kWh @ \$0.07400	\$37.59
	Net charges	\$42.67

Energy Surcharge \$0.14

Total MCE Electric Generation Charges \$42.81

Service Information

Total Usage 508.000000 kWh

For questions regarding charges on this page, please contact:

MCE
781 LINCOLN AVE STE 320
SAN RAFAEL CA 94901
1-888-632-3674
www.mceCleanEnergy.com

Additional Messages

For questions regarding your charges on this page, please contact your Third Party Energy Service Provider.

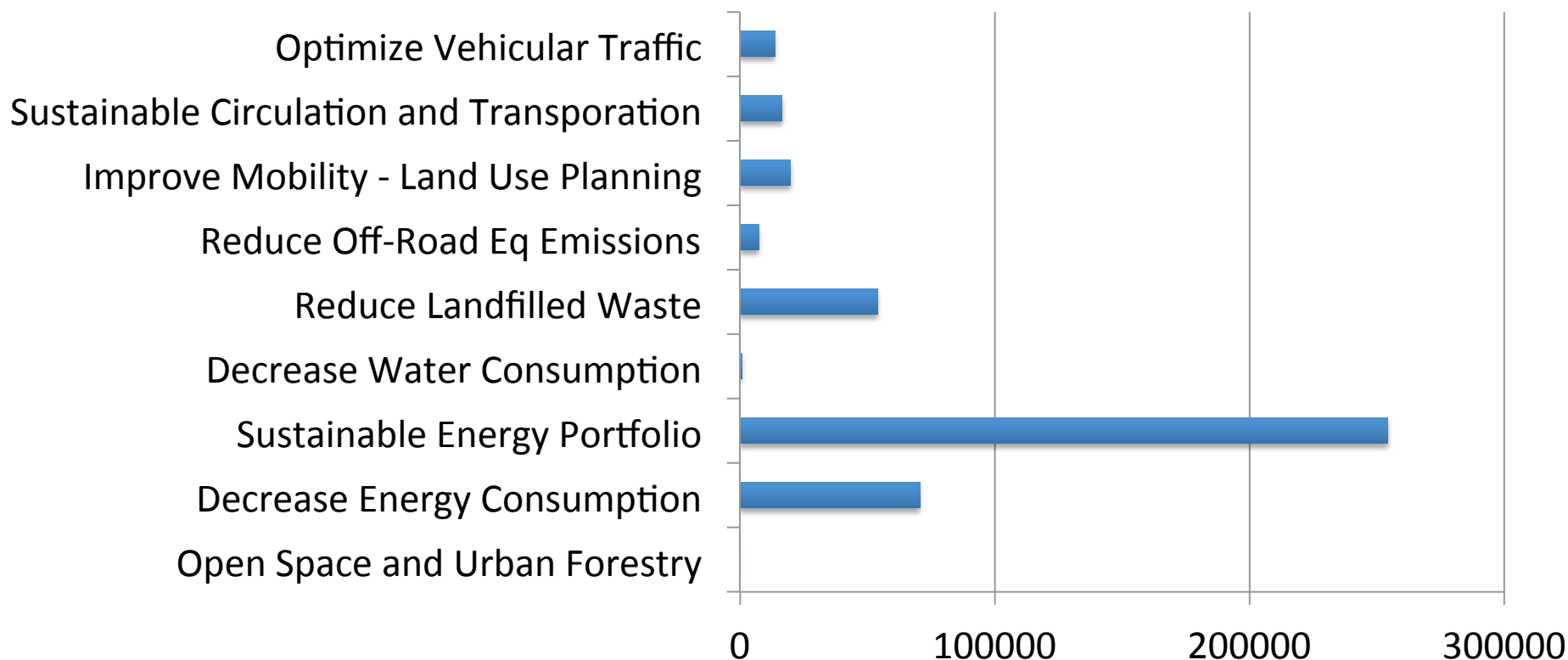
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CCE Supercharges GHG Reduction

Excerpt from City of Sunnyvale CAP



2020 GHG Reductions (MTCO2e/yr)



Sunnyvale CAP - CCE realizes more GHG emission reductions than all other CAP measures **COMBINED!**

With Much Lower Emissions Rates

Electric Power Generation Mix*

Specific Purchases	Percent of Total Retail Sales (kWh)		
	PG&E	Sonoma Clean Power	
		CleanStart	EverGreen
Renewable	22%	33%	100%
• Biomass & Biowaste	4%	9%	0%
• Geothermal	5%	15%	100%
• Eligible hydroelectric	2%	0%	0%
• Solar electric	5%	0%	0%
• Wind	6%	9%	0%
Coal	0%	0%	0%
Large hydroelectric	10%	37%	0%
Natural gas	28%	0%	0%
Nuclear	22%	0%	0%
Other	0%	0%	0%
Unspecified sources of power	18%	30%	0%
Total	100%	100%	100%

* PG&E's generation data represents 2013 is provided in the "Annual Report to the California Energy Commission: Power Source Disclosure Program." SCP's generation data is forecast for 2014.

Total CO₂ Emissions from Electricity Sales per Megawatt-Hour**

PG&E	CleanStart	EverGreen
445 pounds	294 pounds	70 pounds

** The CO₂ emission rates reflect the energy generation provided by PG&E in 2012. SCP's CO₂ emission data is forecast for 2014.

CCE is a Local Economic Engine

Excerpt from San Mateo County- JPA Model



- Localized Revenue Stream = ~\$356M gross/year *
 - *Redirected from utility electric generation rates*
- Estimated start-up costs of \$1.5M provided by SM County
 - *Fully recoverable from early revenues*
- Financing is available for initial energy contracts and working capital; local community bank if possible
- CCEs have public agency bonding authority to initiate local power projects and programs
- Low overhead, no shareholder profits, no investor rates of return or corporate salaries

** San Mateo County 2013 electrical consumption = 4.5B kwh x .079/kwh which is MCE's current E-1 residential rate. Revenues higher as customers and rates increase.*

The Economics



Both Marin and Sonoma CCE's are fiscally sound

	MCE (Draft FY15-16)	SCP (Draft FY15-16)
Total Budgeted Revenue	\$145,933,000	\$165,495,000
Budgeted Expenses	\$141,433,000	\$148,588,000
Cost of Energy	\$129,522,000	\$130,100,000
Cost of Administration	4%	3.5%
Net Increase in Reserves	\$4,500,000	\$16,907,000

CCE is Saving Citizens and Cities Money

- MCE's residential customers saved nearly \$6M in 2014; greater savings expected in 2015.
- SCP customers saved \$6M in first 7 months of service.
 - Sonoma's current rates are 6-9% lower than PG&E and 10-14% lower for low-income CARE customers.
 - The City of San Rafael (municipal operations) saved \$47,000 in 2014.
 - West Contra Costa Unified School District projected to save \$60,000 per year from its operations in Richmond and San Pablo.



CCE is Good for Business

Competition drives costs down, diversifies the market, incentivizes innovation, and spurs new technologies.

- Rate savings are only the tip of the iceberg
- New energy contracts = new power projects, new CA and local jobs
- Local Feed-in-Tariff, Net Energy Metering incentivizes local DG
- Public/Private Partnerships: Community Solar, Battery Storage, Home Area Networks, EV Charging Stations, etc.
- Energy Efficiency funding available from utility and state
- On-bill repayment option and green business loans
- Local job training programs that focus on underserved populations



Marin Clean Energy (MCE)



- May 2010: service starts for Phase I customers
- As of 2014: 125,000 customers; expansion to 165,000 by end of 2015
- Service area includes Marin, City of Richmond , City of Benicia and unincorporated Napa County
- 15-Member Board of Directors; 25 staff members
- 200+ MW new renewable energy in development for MCE customers
- 131 M tons of GHG reductions to date (2010-2013 reporting periods)
- 1800 jobs created/supported by MCE; most in construction sector

2015 MCE Residential Cost Comparison



508 kWh
E-1/Res-1

	PG&E 22%	MCE Light Green 50%	MCE Deep Green 100%	MCE Local Solar 100%
Delivery	\$44.37	\$44.37	\$44.37	\$44.37
Generation	\$49.50	\$40.13	\$45.21	\$72.14
PG&E Fees	-	\$6.27	\$6.27	\$6.27
Total Cost	\$93.87	\$90.77	\$95.85	\$122.78

- Delivery rates stay the same
- Generation rates vary by service option
- PG&E adds exit fees on CCA customer bills
- Even with exit fees, total cost for Light Green is less than PG&E

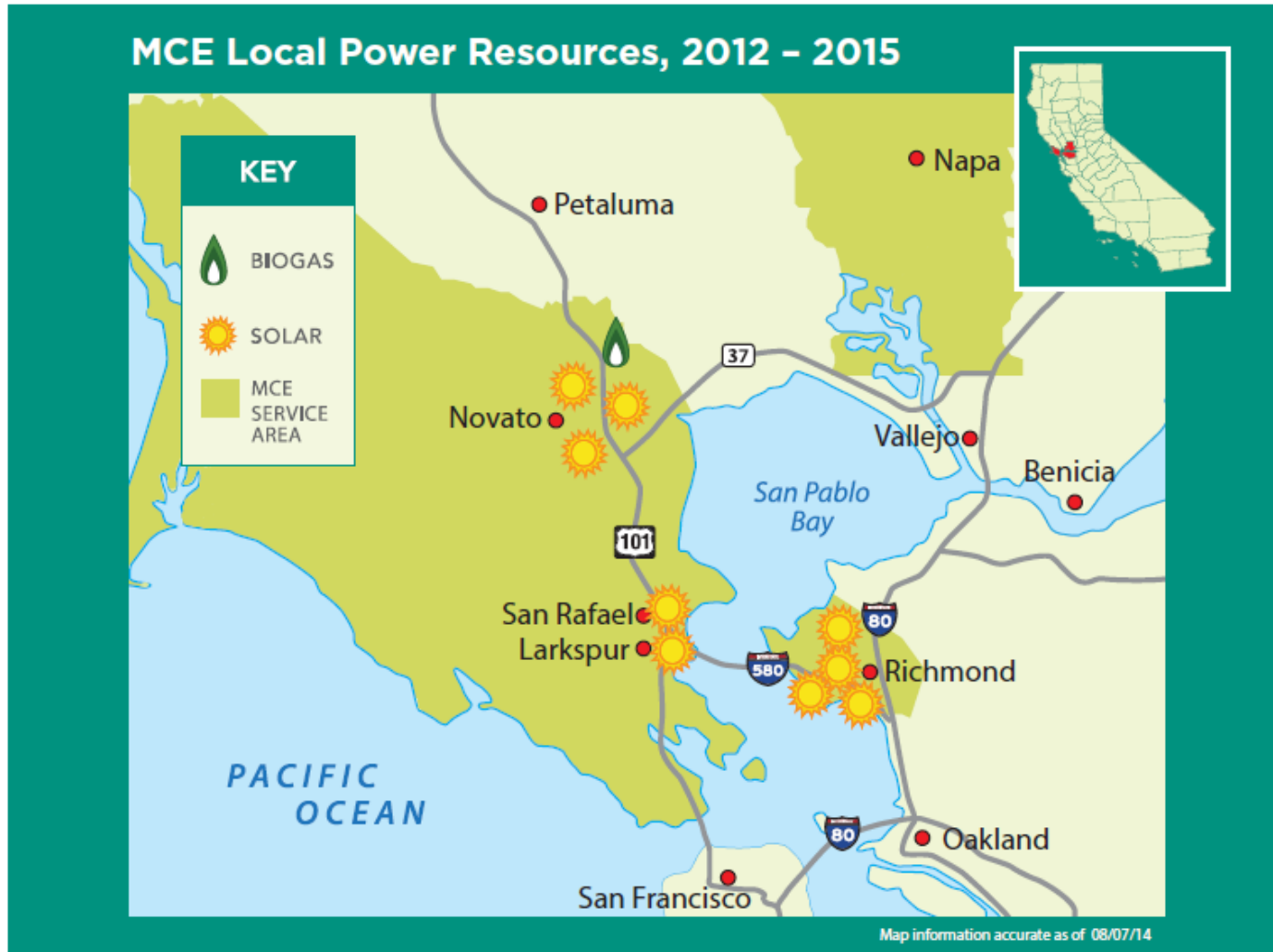
2015 MCE Commercial Cost Comparison



1,405 kWh A-1/Com-1	PG&E 22%	MCE Light Green 50%	MCE Deep Green 100%	MCE Local Solar 100%
Delivery	\$154.70	\$154.70	\$154.70	\$154.70
Generation	\$142.54	\$111.00	\$125.05	\$199.51
PG&E Fees	-	\$15.45	\$15.45	\$15.45
Total Cost	\$297.24	\$281.15	\$295.20	\$369.66

- Delivery rates stay the same
- Generation rates vary by service option
- PG&E adds exit fees on CCA customer bills
- Even with exit fees, total cost for Light Green *and* Dark Green is less than PG&E

CCE Facilitates Local Power



Sonoma Clean Power (SCP)



- May/December 2014: service starts for 22,000 commercial customers; December roll out to 140,000 residential customers
- SCP has 11% opt out rate so far; 89% customer retention
- Average rates are 6%-9% lower than PG&E and 10-14% lower for low income CARE customers
- SCP customers are saving \$6M in first year of program
- Product Options: CleanStart @ 33% and Evergreen @ 100% CA qualified renewable power
- 100% renewable product sourced from Calpine/local geo- thermal plant
- 70MWs plus 12.5 MW new solar project on floating docks in County irrigation pond

2015 Residential Cost Comparison



Example Residential Electric Charges	PG&E*	CleanStart	EverGreen
Based on a home using 500 kWh per month on the RES-1 (E-1) rate			
	28% [†] Renewable Energy	33% Renewable Energy	100% Renewable Energy
Electric Generation (all customers)	\$48.73	\$35.50	\$53.00
PG&E Electric Delivery* (all customers)	\$58.85	\$58.85	\$58.85
Additional PG&E Fees (SCP customers only)	\$0.00	\$6.17	\$6.17
	Average Total Cost \$107.57	Average Total Cost \$100.52	Average Total Cost \$118.02

*PG&E fees are calculated by Sonoma Clean Power using rate data provided by PG&E effective on January 1, 2015.

2015 Commercial Cost Comparison



Example Commercial Electric Charges Based on a business using 1,500 kWh per month on the COM-1 (A-1) rate			
	PG&E*	CleanStart	EverGreen
	28% [†] Renewable Energy	33% Renewable Energy	100% Renewable Energy
	Electric Generation (all customers)	Electric Generation	Electric Generation
	PG&E Electric Delivery* (all customers)	PG&E Electric Delivery*	PG&E Electric Delivery*
	Additional PG&E Fees (SCP customers only)	Additional PG&E Fees	Additional PG&E Fees
	Average Total Cost	Average Total Cost	Average Total Cost
	\$319.17	\$296.49	\$348.99

*PG&E fees are calculated by Sonoma Clean Power using rate data provided by PG&E effective on January 1, 2015.

What are the Risks...

And how are they mitigated?



Rate Competition/Market Fluctuation: Power market expertise and well crafted power RFPs are essential; Long and short term contracts; Diversified supply portfolio, power asset ownership and “value add” programs.



Customer Opt-Out: Competitive rates are a must; Articulate additional consumer and community benefits; Opt-outs in CA typically in 10%-20% range.



Political: Align CCA to local policy objectives; Appeal to both progressive and conservative minds by making the environmental AND business case; Robust community engagement is essential



Regulatory/Legislative: PUC decisions may adversely affect CCA, and proposed bills (eg: AB 2145) can change the original statute; Participate in the regulatory and legislative process.

The 3 Year Outlook...

- ✓ Historic gas lows help achieve competitive pricing
- ✓ Cost of in-state solar is currently low
- ✓ Utilities are fully resourced through 2018-2020; excess power available
- ✓ Capacity charges currently low
- ✓ Affordable financing available



CCA is Poised for Growth in CA



● Operational CCAs

MCE Clean Energy
Lancaster Choice Energy
Sonoma Clean Power

● Exploring / in Process

Alameda County*
Butte County
City of Arcata/Humboldt County
City of Davis/Yolo County
City of San Diego*
City/County of San Francisco
City of Sunnyvale/Silicon Valley Partnership*
Contra Costa County
LA County/South Bay Consortium
Lake County
Mendocino County
Monterey Bay Community Power (Tri-County)
Napa County Cities
San Bernardino County
San Diego County
San Luis Obispo/Morro Bay
San Mateo County*
Santa Barbara County
Solano County
Ventura County

* current LEAN clients



Now is the time to take control
of your local energy future!

CCA is the path forward.

For More Information:

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www.LEANenergyus.org

