



DATE: March 10, 2015

AGENDA ITEM # SS1

TO: City Council
FROM: J. Logan, Assistant City Manager
SUBJECT: Clean Energy through Community Choice Aggregation

RECOMMENDATION:

Receive informational report on clean energy and community choice aggregation and discuss potential options for Los Altos

SUMMARY:

Estimated Fiscal Impact:

Amount: None

Budgeted: Not applicable

Public Hearing Notice: Not applicable

Previous Council Consideration: January 24, 2015 Council Retreat discussion

CEQA Status: None

Attachments:

1. CCA Community Choice Aggregation – presentation by Gerry Glaser in May 2013
2. Los Altos Commission on the Environment CCA – presentation by Margaret Bruce in July 2014
3. Welcome to the New Energy Choices Forum – September 2014
4. Staff memo – New Energy Choices for Silicon Valley – October 2014
5. Climate Action Plan and Community Choice Aggregation Feasibility Study: Environmental Commission Report – February 9, 2015
6. California Clean Power Community Choice Simplified – presentation on February 12, 2015
7. CCA materials from other local jurisdictions – County San Mateo, City of San Mateo, City of Menlo Park

BACKGROUND

State and Local Mandates

State Assembly Bill 32, the Global Warming Solutions Act, was signed into law in 2006 and directed public agencies in California to support the state-wide target of reducing greenhouse gas (GHG) emissions to 1990 levels by 2020. In addition, California adopted ambitious energy and environmental policies to reduce state-wide greenhouse gas (GHG) emissions to 20% of 1990 levels by 2050 and, to provide 33% of electricity demands in 2020 from renewable resources utilizing clean energy technologies and environmental benefits.

To address the reduction of GHG emissions at the local level, the City Council adopted a Los Altos Climate Action Plan (CAP) on December 10, 2013. The CAP is a comprehensive strategy with goals and measurements to reduce GHG emissions within five focus areas: Transportation, Energy, Resource Conservation, Green Community and Municipal Operations. The CAP was adopted with a target of reducing the community's GHG emissions by at least 15% by 2020 and with an overarching plan for how the City can achieve up to a stretch-goal of 17% reduction in the GHG emissions by 2020.

Community Choice Aggregation

One method that has the potential to reduce the GHG emission associated with energy consumption is the establishment of Community Choice Aggregation (CCA), a system that allows cities, counties and Joint Power Authorities (JPA) to aggregate the purchasing power of an identified customer base within a defined area to secure alternative energy supply contracts with the goal of increasing the percentage of energy from renewable sources. The purchase of alternative energy supplies includes renewable sources such as hydroelectric, wind and geothermal as opposed to non-renewable fossil fuels such as coal, oil and natural gas. The consequences inherent in the use of fossil fuels to generate energy are particularly high carbon dioxide equivalents or GHG emissions which contribute to global warming. The ability to form CCAs has been adopted into law in California and a few other states.

In the 2005 Los Altos GHG Community Inventory baseline, residential and commercial electricity account for 18% of Los Altos community-wide GHG emissions. Reducing the GHG intensity of the electricity currently flowing through the PG&E grid by incorporating more energy from renewable sources is an effective way to directly reduce community GHG emissions. If by establishment of a CCA, Los Altos purchased electricity that was 25% cleaner than PG&E-provided grid electricity, the use of renewal-source energy could potentially reduce overall city emissions by up to 4.5%. If 100% renewable/clean energy were purchased, Los Altos emissions could be reduced by up to 18% and could attain the 2020 stretch goal of 17% reduction in GHG. As such, implementing a CCA has the potential to rapidly reduce community GHGs more so than any other measure currently identified in the Climate Action Plan.

In July 2013, the City of Los Altos Environmental Commission explored the concept of GHG reductions that could be achieved by Community Choice Aggregation and has continued to hear presentations on the topic (Attachments 1 and 2).

On August 11, 2014, City of Sunnyvale staff made a presentation to the Environmental Commission regarding its Community Choice Aggregation Feasibility Study. The Sunnyvale Feasibility Study includes the Cities of Cupertino and Mountain View and is currently finalizing scopes with various consultants, including firms for program development, community engagement, and technical analysis. The Feasibility Study is on track for a presentation to the Sunnyvale City Council in May 2015. The study does not have a specific path for how other communities will engage in the study at this time. Sunnyvale project staff will be working with their consultants and project leadership over the next months to evaluate next steps and will conduct a meeting or more formal survey to determine the level of interest and readiness shortly thereafter. City of Los Altos staff has been in close communications with Sunnyvale staff on the Feasibility Study project in an effort to demonstrate the City of Los Altos Environmental Commission's interest in this project.

In September 2014, City staff attended the New Energy Choices Forum (Attachment 3) and provided a summary report to the Environmental Commission in October 2014 (Attachment 4). Staff provides updates about the City's CAP and CCAs to the Environmental Commission on an ongoing basis (Attachment 5).

On February 12, 2015, Mayor Pepper, Councilmember Prochnow, Environmental Commissioners Bray and Hedden, and City staff received a presentation from California Clean Power, a new private business (Attachment 6). Mayor Pepper and Councilmember Prochnow have invited California Clean Power to make its presentation to the entire Council at the March 10, 2015 study session.

DISCUSSION

California Public Utilities Commission

In 2002, the California State Legislature enacted Assembly Bill 117 permitting the creation of CCAs and extended to the California Public Utilities Commission (CPUC) provisions that regulate and permit agencies to purchase and sell electricity on behalf of utility customers within their service areas. Under a CCA system, traditional utilities such as PG&E continue to own, operate and charge for the distribution services of electricity to customers and to provide the necessary resources to ensure proper service to the CCA Service market. The CCA is responsible for: 1) procuring and charging the customer for alternative energy; 2) providing for the electric power needs of its customers; 3) maintaining customer communications; and 4) management and oversight of the CCA Service program. Once a CCA is established, all customers in the jurisdiction will automatically be enrolled in the CCA unless they take action to opt-out if they do not wish to participate in the CCA.

To establish a CCA, the CPUC's statutory and regulatory requirements must be satisfied by: 1) registration of CCA programs; 2) interim bond of \$100,000 posted with the CPUC as part of the CCA registration packet; 3) a CCA Service Agreement with the local service utility along with evidence of insurance or bond that will cover costs, fees and operational deadlines and errors in forecasting; and 4) an implementation plan. The Commission may require additional information to ensure compliance with basic consumer protection rules and other procedural matters.

Public Utilities Code Section 366.2 (c)(3) requires a CCA Implementation Plan to contain all of the following:

- A. An organizational structure of the program, its operations, and its funding
- B. Rate setting and other costs to participants
- C. Provisions for disclosure and due process in setting rates and allocating costs among participants
- D. The methods for entering and terminating agreements with other entities
- E. The rights and responsibilities of program participants, including, but not limited to, consumer protection procedures, credit issues, and shutoff procedures
- F. Termination of the program
- G. A description of the third parties that will be supplying electricity under the program, including, but not limited to, information about financial, technical and operational capabilities.

Pursuant to Public Utilities Code Section 366.2 (c)(4), a CCA is also to prepare and provide for all of the following:

- A. A statement of intent
- B. Provision(s) that provide for:
 - 1. Universal access
 - 2. Reliability
 - 3. Equitable treatment of all classes of customers
 - 4. Compliance with any legal requirements concerning aggregated service

Review of Northern California and Local CCA Initiatives

Currently, there are two CCAs operational in Northern California: Marin Clean Energy (launched in 2010) and Sonoma Clean Power (launched in May 2014). The City of Lancaster is poised to begin service in early 2015 in Southern California Edison's territory. There are several other jurisdictions throughout the State investigating CCAs for their economic and environmental potential. In the Bay Area, Alameda County has allocated more than \$1 million to explore a CCA. Unincorporated Napa County has joined Marin's program and interest is growing in Contra Costa County as well.

Local interests and efforts to form CCAs are occurring with the City of Sunnyvale-led feasibility study in joint effort with the Cities of Cupertino and Mountain View and with interest from the County of Santa Clara and surrounding local agencies including the City of Los Altos.

On February 24, 2015, the County of San Mateo authorized \$300,000 for completing Phase I of a three-phased project to form a CCA program in San Mateo County. The San Mateo County Office of Sustainability (OOS) conducted education and outreach to its local agencies and requested resolutions of support to obtain electricity load data from PG&E to assess the feasibility of CCA for the county. The County's CCA work plan is based on successful program launches in Marin and Sonoma counties and Lancaster, CA and is a three-phased plan: 1) Pre-Planning and Due Diligence, 2) CCA Program and JPA

Development, and 3) Preparing for Launch. Each phase has a distinct timeline and set of activities.

The County of San Mateo Feasibility Study that includes pre-planning and due diligence will evaluate the following:

- A. Size of the potential CCA
- B. Future energy demands'
- C. Renewable energy availability
- D. Ability of potential CCA to be competitive
- E. How different power supply scenarios impact greenhouse emissions, jobs created, rates and other factors
- F. Potential risks

The Feasibility Study is scheduled to commence June 2015 and will coincide with community outreach efforts to provide information to local residents, businesses, civic organizations and policymakers about CCAs and its potential benefits for San Mateo County. A steering committee will be established.

OOS cited these goals for establishment of a CCA to serve San Mateo County agencies:

- A. Competitive, often cheaper electricity rates
- B. Consumer choice, where none currently exists
- C. Significant reductions in GHG emissions
- D. New renewable power development, local and in-State
- E. New jobs and energy programs for the community

In addition to San Mateo County, eighteen cities in that County have requested to join the study and other cities are at various stages of assessment to evaluate the potential benefits for each community.

On February 24, 2015, the City of Menlo Park adopted a resolution to indicate its commitment to participate in the feasibility phase of CCA in partnership with San Mateo County without obligation of expenditures unless so authorized by City Council. The City is also exploring other options to participate in an inter-jurisdictional CCA and may conduct a CCA technical study. These options include: 1) potential link with the City of Palo Alto's municipal electric utility; 2) work with PG&E to increase renewable energy sources; and 3) explore CCA activities in Santa Clara County and the Sunnyvale Feasibility Study. A selection of the County of San Mateo reports is included as Attachment 7.

Risks of CCAs

Establishing a CCA is not without risk, although many of the early concerns have been mitigated and experience amongst agencies is providing new business opportunities and best practices for establishment of CCAs. Programmatic risks in forming a CCA generally include:

- A. Rate risk – the risk that the CCA’s rates are higher than those offered by the incumbent utility
- B. Opt-out risk – the risk that customer opt-outs are too high and the program is thus economically infeasible
- C. Operational risk – the risks associated with commodity, credit, vendor default, poor management and oversight
- D. Legislative/regulatory risk – the risks associated with unfavorable state legislation or regulation that could threaten or harm the program

COUNCIL DIRECTION

The Council is requested to provide direction on the following items:

- 1. What are the goals to be achieved, specifically for Los Altos, by providing a CCA alternative for residents/businesses?
- 2. Does the Council desire to add exploration of a CCA alternative as a new measure in the City’s Climate Action Plan?
- 3. What is the Council’s preference(s) regarding implementing a CCA?
 - A. Do not pursue a CCA alternative at this time
 - B. Monitor the progress of local JPA CCA models and consider joining a JPA at a future date
 - C. Consider pursuing an independent CCA model
 - D. Consider other options
- 4. Is the Council interested in allocating resources to further investigate and evaluate one or more CCA options?
- 5. If the Council decides to move forward to pursue a CCA model, where does this effort rank in the City’s priorities from a timing and resource perspective?

FISCAL IMPACT

None

PUBLIC CONTACT

Posting of the meeting agenda serves as notice to the general public.

CCA

Community Choice Aggregation

Community Action

Prepared by Gerry Glaser

May, 2013

Topics

- **Who is speaking
& Why
& Getting on the same page**
- **Electricity
& How do we get it**
- **What is a CCA
& Where does it fit in**
- **Legislative trail
& How CCA came to be
& Why is CCA connected to Climate Change**
- **Our Community
& Community Dimensions**
- **CCA Risks and Rewards
& Establishing a CCA**

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WHO IS SPEAKING & WHY & GETTING ON THE SAME PAGE

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about Gerry

ScalablePower.net

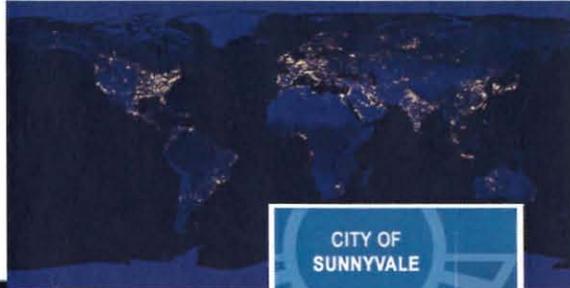
Scalable power strives to prove that every community, regardless of size, can become self-sufficient with respect to its electric energy needs.

$E=mc^2$
Albert Einstein, 1905

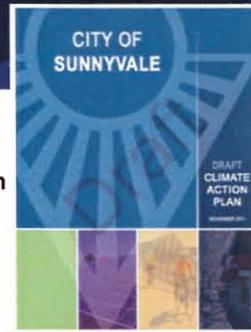
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Why



Horizon
2035



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Physics 101

Conservation of Energy

Energy cannot be created or destroyed, but it can be transferred or transformed from one form to another.

- **WATT**
Electric Unit of power

KW – 1000 Watts
MW – 1,000,000 Watts
Gerry's roof = 2.5 KW
Diablo Canyon = 2,200,000 KW
(million times more than Gerry)



- **WATT-Hour**
Electric Unit of energy

KWH – 1000 Watt-hours
MWH – 1,000,000 Watt-hours
Gerry's roof = 4,015 KWH/yr
Diablo Canyon = 18,000,000,000 KWH/yr
(4.5 million times more than Gerry)



- **GHG ratio**
PG&E 2012
393 lbs-GHG/MWH
South Bay CCA
??? lbs-GHG/MWH

- **Local Energy needs**
Santa Clara County 1,800,000 people
16,384,000,000 KWH/yr 1,304w/person
Sunnyvale(estimate) 142,000 people
2,000,000,000 KWH/yr 1,800w/person

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Physics 101 play with numbers

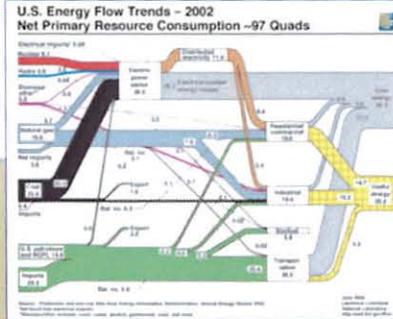
- **Quad**
Unit of Energy

Quad = 1,000,000,000,000 BTU
Annual USA consumption = 150 quad



- **One Quad**
since I don't know BTU's

- 8,007,000,000 Gallons (US) of gasoline
- 293,083,000,000 Kilowatt-hours (kWh)
- 33.434 gigawatt-years (GWy)
- 36,000,000 Tons of coal
- 970,434,000,000 Cubic feet of natural gas
- 25,200,000 Tons of oil
- 252,000,000 Tons of TNT
- 13.3 Tons of Uranium-235



- **GHG Equivalents**

- 1 gallon of gasoline = 20 lbs of CO₂
- 1 gallon gasoline = 36.6 KWH
- 36.6 KWH = 15.5 lbs of CO₂ by PG&E today
- 1 tree = minus 64 lbs CO₂/yr
- 1 hp = 0.75 KW; Honda accord = 1390 100w light bulbs
- Nissan Leaf has a 24 KWH battery pack

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ELECTRICITY & HOW DO WE GET IT

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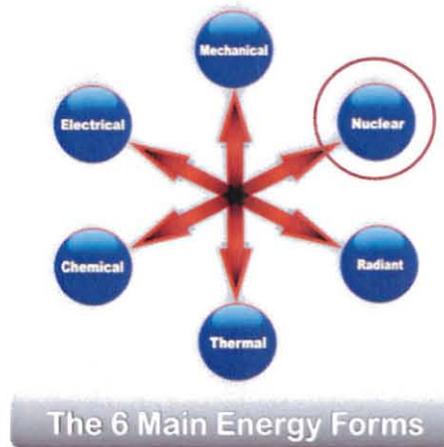
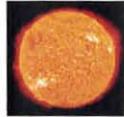
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Electricity is one form of Energy

Conservation of Energy

Energy cannot be created or destroyed, but it can be transferred or transformed from one form to another.

Of course someone can always find an exception



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Background: Energy Landscape

- Electric energy is normally vertically integrated
 - Includes:
 - Generation of electricity
 - Transmission into region
 - Distribution to customer (+ Service)
- Two Predominant Models used
 - 70% Investor Owned Utility (IOU)
 - 30% Municipal Owned Utility
- Results in natural monopolies, highly regulated
 - California Public Utility Commission establishes rules and guidelines



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Electric Regulatory Terms

- **LSE**

Load-serving Entities

Providers of Power. CCA is one form of LSE. CPUC mandates certain obligations on LSEs.

- **Resource Adequacy**

Guarantees of adequate energy based on forecast demand, +15% surplus. Review that resources are reliable and designed for the future.

- **REC**

Renewable Energy Credit

1MWH of green power = 1REC
Different activities achieve distinct REC values.
Solar generate an REC with the power, natural gas does not.

- **RPS**

Renewable Portfolio Standard

Minimum percentage, that grows over time, of renewable power or equivalent credits that are required to be in the power mix and appropriate sources.

Electricity Today

PG&E

Procures and/or produces



CAL-ISO
transmits



PGE
distributes



PGE
bills & services

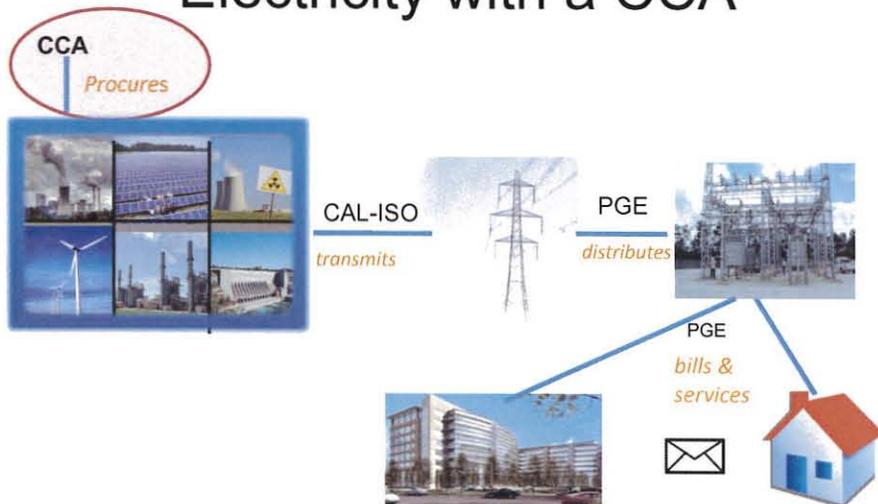


WHAT IS A CCA & WHERE DOES IT FIT IN

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Electricity with a CCA



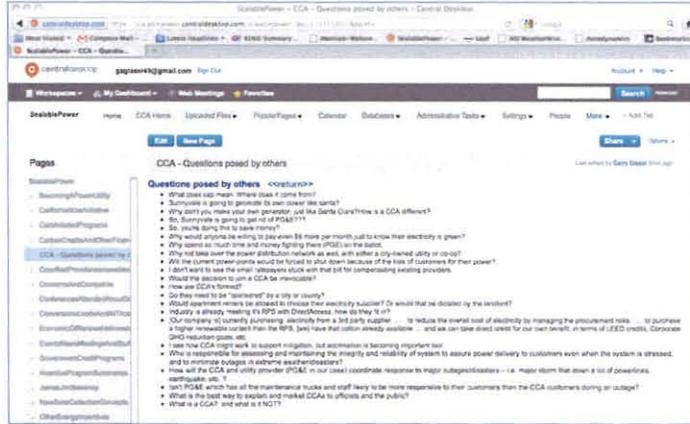
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Typical Questions

Many of questions asked get answered when you fill in 2 blanks:

A CCA is _____, but a CCA is NOT _____



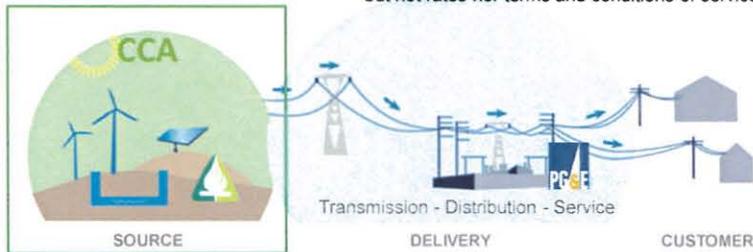
A CCA is NOT _____

- Municipal Utility
- A department of city government.
- A complete replacement for the Investor Owned Utility (IOU – PG&E)
- A replacement for the existing Infrastructure.



A CCA is _____

- + Community Choice Aggregation
- + A method to allow local government agencies to negotiate the purchasing and development of power and energy-related programs on behalf of their communities.
- + A way for energy generation revenues to be reinvested in and by the local community.
- + Regulated by the CPUC (33% RPS, resource adequacy, cost allocation; but not rates nor terms and conditions of service)



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GG25

Simply - What is a CCA?

- Community-controlled electric power supplier
- Hybrid approach for supplying electric energy

Community (CCA)

- Procures Power
- Establishes Power Rates
- Creates Community oriented programs

IOU

- Maintains Transmission and Distribution
- Provides Alternative Source



IOU

- Provides Customer Service
- Completes Billing



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A Changing Landscape

- Four years ago only one CCA was in formation in California, in 2012 dozens are in process.
- Multiple organizations to help in CCA initiation

- Marin Energy
- LEAN Energy
- The CCA Alliance
- CRS

Location	Program Name	Renewable Offer	Start Date	Premium
Orlando, FL, US	California 2012 Renewable Portfolio Standard	50% or 60% green power	2012	50% to 60% green power at lower cost
Clark, CA, US	California 2012 Renewable Portfolio Standard	50% or 60% green power	2012	50% to 60% green power at lower cost
San Francisco, CA	California 2012 Renewable Portfolio Standard	50% or 60% green power	2012	50% to 60% green power at lower cost
San Francisco, CA	California 2012 Renewable Portfolio Standard	50% or 60% green power	2012	50% to 60% green power at lower cost
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U.S. Department of Energy

• Six states now have legislation that supports CCA creation (CA, OH, RI, MA, NJ, IL)

• More states have pending legislation

• Attraction of CCA has been in providing cost savings

Why CCA interest suddenly in California...



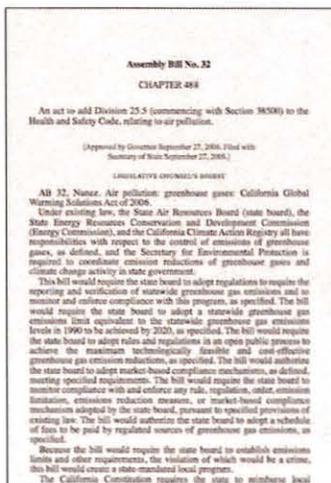
LEGISLATIVE TRAIL & HOW CCA CAME TO BE & WHY IS CCA CONNECTED TO CLIMATE CHANGE

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California AB32 – sets a new agenda

AB 32 requires actions be taken to reduce California's greenhouse gas (GHG) emissions to their 1990 levels by 2020



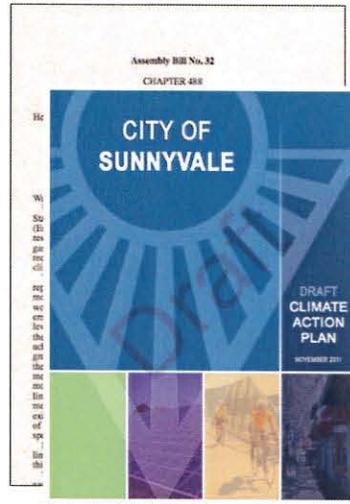
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California AB32 – sets a new agenda

AB 32 requires actions be taken to reduce California's greenhouse gas (GHG) emissions to their 1990 levels by 2020

Various agencies have involved Local communities in describing how that will be achieved.



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Legislative Landscape

- 1998 - AB 1890 endorses retail competition
Only one alternate option – Direct Access (DA) as energy service provider (ESP)
Many still in place today for commercial and industrial sites.
Program frozen in 2001, now 2%.
- ★ 2002 – AB 117 lays the foundation for CCAs
16 page bill outlines the basic framework.
D.04-12-046, D.05-12-041, and D.10-5-050 clarify specifics.
- 2006 – AB 32 Sets GHG limit goal for 2020
Sunnyvale CAP addresses our role in that
- 2011 – SB 790 Protects CCAs
Drafted in response to Prop 16
Outlines anti-competitive conditions on IOUs.
Supports CCA development; outlines a *code of conduct* energy providers must respect.
- ★ 2011 – SB 2 Establishes RPS Standards
Sets goals and defines *green*
- 2012 – SB 843 Expands private energy alternatives
Offsite Solar - Killed in committee August 31st
A CCA can already establish these programs

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Legislative – Addressing Concerns

AB 117 – Establishes CCAs

- Provides protections; requires CCA to file full implementation plan with CPUC
- Gives CPUC 90 days respond to any submitted CCA implementation plan
- Identifies cost recovery requirements
- Specifies the energy efficiency and conservation program aspect of CCAs
 - Opens door for associated GHG gas reduction programs
- If CCA fails, the cost of returning to IOU is NOT the burden of the customer.
- CCA must not discriminate with regards to customers in its service area
- Identifies how **OPT-OUT** is to be handled

SB 790 – protects CCA creation

- Identifies which agencies can form CCAs
- Reinforces that Utility MUST cooperate with CCA. Establishes rules of conduct.
- Identifies that market information must be shared
- Explicitly identifies that IOU is to *facilitate development* of any CCA and fair competition.

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Legislative - Green Solutions

2011 SB 2 specifies satisfying green targets and methods

- RPS can be satisfied by using a variety of power and offset options
- Qualified Renewable Power Minimums
 - 20% by 2013
 - 33% by 2020
- Three categories of *Renewable Power*
 - Category 1 - unlimited
 - energy from qualified renewable energy generators located within the state; or from out-of-state generators that can meet strict **scheduling** requirements to ensure deliverability to California
 - Category 2 – limit 25% after 2015
 - “firming and shaping” transactions where the energy produced by the renewable resource is not necessarily delivered to California, but a like amount of energy from a different resource is delivered and bundled with the former’s renewable energy attribute. (See Virtual Power Purchase)
 - Category 3 - limit 10% after 2015
 - unbundled renewable energy certificates (REC) with no related physical energy delivery

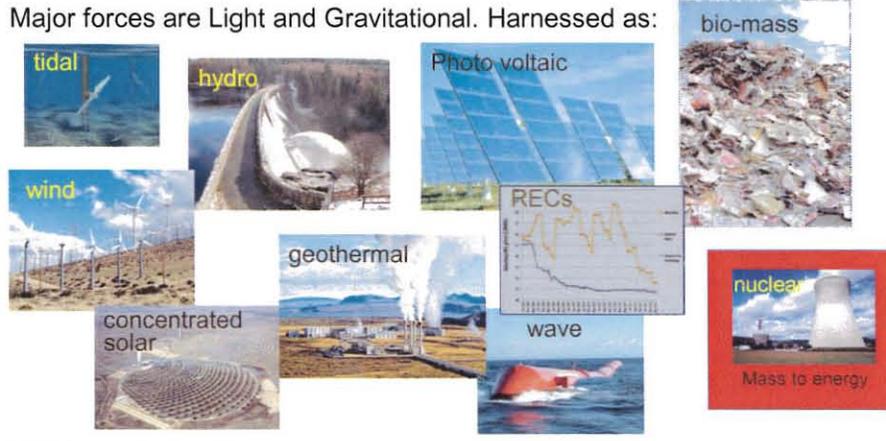
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What is Renewable?

Forms of Energy that are continually being replaced as fast as they are consumed

Major forces are Light and Gravitational. Harnessed as:



SBX1-2: biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydro (under 30 MW), digester gas, trash conversion (not utilizing combustion), landfill gas, ocean wave, ocean thermal, or tidal current

California Energy Profile

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	California Power Mix (GWh)	Percent California Power Mix
Coal	3,120	1.6%	692	20,158	23,969	8.4%
Large Hydro	36,596	18.3%	74	1,430	38,101	13.4%
Natural Gas	90,751	45.3%	215	13,072	104,037	36.5%
Nuclear	36,666	18.3%	-	8,031	44,697	15.7%
Oil	36	0.0%	-	-	36	0.0%
Other	0	0.0%	-	-	0	0.0%
Renewables	33,244	16.6%	5,398	2,751	41,393	14.5%
Biomass	5,777	2.9%	419	-	6,195	2.2%
Geothermal	12,685	6.3%	-	574	13,259	4.7%
Small Hydro	6,130	3.1%	6	-	6,136	2.2%
Solar	1,058	0.5%	29	130	1,217	0.4%
Wind	7,594	3.8%	4,945	2,047	14,585	5.1%
Unspecified Sources of Power	N/A	N/A	21,339	11,381	32,719	11.5%
Total	200,414	100.0%	27,718	56,821	284,953	100.0%

From California Energy Commission

Repurposing CCA?

- CCA concept developed before pervasive awareness of climate change
- CCA developed to provide choice and control costs
- With change in charter, CCA provides flexible ways to change the energy profile
- In California, resulting from **AB32 efforts**, CCA was identified as an established mechanism that also positively addressed Climate Change
- With further change in charter, CCA can provide ways to **achieve community goals** associated with energy

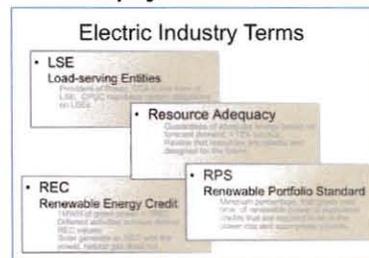
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California PUC Regulations

CCA is governed by CPUC regulations to which all ***Load Serving Entities*** must comply

- Provide plan for 115% of forecast peak demand
- Local Area Resources must be made available to CA-ISO
- Tracks compliance to RPS portfolio



Also, CCA-specific CPUC regulations govern CCAs

- As part of creation, the CCA must document how it would be abandoned

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SUNNYVALE COMMUNITY DIMENSIONS

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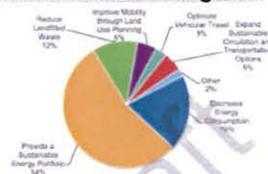
Addressing the CAP Problem

- Reduction Goals change little over the next 25 years
- Two types of Reduction

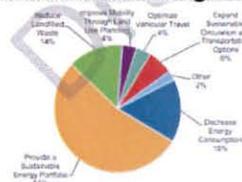
Efficiency and behavior
change relies on personal choice.

Systemic
change relies on institutional methods.

2020 CAP reduction goals



2035 CAP reduction goals



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The CAP Dimensions

Reductions from Sustainable Energy Portfolio (MT-CO₂e)

50% of all reduction measures

GHG Reduction	2015	2020	Time Frame
EP Sustainable Energy Portfolio	243,520	174,330	Year
EP Local Renewable Energy	21,790	27,110	Mid
WC Water Conservation	250	190	Long
WC Water Conservation	300	1,570	Year

Total Reductions All Strategies (MT-CO₂e)

GHG Reduction	2015	2020	Time Frame
DVT Car Sharing	8,970	22,830	Long
DVT Circulation Efficiency	8,320	8,430	Mid
Adaptation Strategies	887,180	789,670	Year

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The CAP Problem – the math

- Sunnyvale Energy Portfolio
 - Currently accounts for 55% of the GHG inventory; surpassing transportation at 35% (CAP pg 2.5)
 - 37% of GHG inventory is Electric Energy
 - 85% of Electric Energy Portfolio is consumed in industrial uses.



CCA Efforts in California (as of 9/2012- LEAN)

CEC Electricity Usage Data Provided by County Only* <small>*CEC County Usage Data -- http://ecdms.energy.ca.gov/</small>	2010 USAGE Million kWh <small>(Residential/Other)</small>	EST. REVENUE \$Millions <small>0.069/kWh-MEA 2012</small>	CA RPS (33%) Million kWh <small>(33% of 2010 data)</small>
OPERATIONAL			
Marin Energy Authority (Marin County, Richmond)	1422	\$100+	469
IMPLEMENTATION PLAN CERTIFIED, CONTRACT NEGOTIATED			
San Francisco, City & County of/SF-PUC: <i>Operational 2013</i>	5,855	\$404	1932
FEASIBILITY COMPLETE, JPA, IMPLEMENTATION PLAN			
Sonoma County/Sonoma Clean Power: <i>Estimated 10-12 Mos to Svc</i>	2,875	\$198	949
CCA EXPLORATION			
Apple Valley, City of: <i>Engaged consultant</i>			
Arcata, City of/Humboldt County	920	\$63	304
Benicia, City of/Solano County	3,127	\$216	1032
Calaveras County: <i>Engaged consultant</i>	325	\$22	107
Davis, City of; Yolo County; <i>scoping plan complete</i>	1,658	\$114	547
East Bay Cities: Oakland, Albany, Berkeley, El Cerrito, Hayward			
East Bay Municipal Utility District		\$350	
Monterey County: <i>Formed local gov. task force</i>	2,474	\$171	816
Palmdale, City of: <i>Engaged consultant</i>			
Rancho Mirage, City of			
San Benito County	309	\$21	102
San Diego County/City of Solana Beach, Santee: <i>Resolution review</i>	18,800	\$1,297	6204
San Luis Obispo/City & County: <i>CCA in Climate Action Plan</i>	1,649	\$114	544
Santa Cruz/City & County: <i>CCA in CAP; Unanimous Board support</i>	1,252	\$86	413
Santa Clara, County of (2011 data)	16,384	\$1,130	5,407
Trinity County (partially served by public utility)	43	\$3	14
Tuolumne County: <i>Engaged consultant</i>	448	\$31	148
TOTAL	46,718	\$3,573.54	15,416

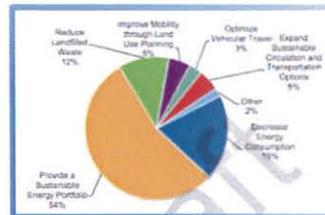
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The CAP Problem – the math

Tackling Energy Portfolio provides

***the earliest,
the quickest,
most impactful***



method of addressing GHG mitigation.

Marin's Approach



Each city participating in MEA CCA receives CAP credit

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CCA RISKS AND REWARDS & ESTABLISHING A CCA

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What we learned – **Myths** - about CCA

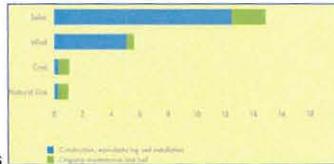
- **Utilities will stop the effort.**
SB790 guarantees that IOUs must support CCA efforts
- **This is bleeding edge**
Marin, Alameda, Sonoma, San Francisco, Chicago and others have blazed the way for Green-oriented CCA formation
- **This is difficult and expensive to setup**
Appropriate legislation is in place that makes setup a 2-3 year effort. Repayment of initial outlay in less than 3 years of operation
- **Utilities already find it difficult to find alternative power**
Utilities rely on large power sources. Smaller sources have a hard time finding competitive markets. Annual open bid period for MCE experience 10-50x of their annual need
- **This is a drain on Municipal resources**
 - *There are NO ongoing municipal expenses*
 - *CCA employs its own staff and can be created in any of a number of forms (JPA, Utility district, any regionally representative group)*
 - *CCA becomes a source of investment funding. MEA with an annual revenue of \$100M already has a re-investment fund of \$30M.*

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What we learned - **Reasons** – to have a CCA

- **The Obvious**
 - Provides new options for citizens to participate in the **green economy**
 - Provides **competition** for customers – more sources and energy options
 - Eventually **reduces energy costs**
- **The Not so Obvious**
 - Supports existing Sunnyvale-headquartered industries that play in this industry
 - Makes Community more **attractive to businesses**
 - Better assures energy supply (get the benefit of both IOU and CCA – SB 790)
 - **Creates jobs** in the energy sector (ex: 12 install and 3 maintenance jobs for each MW of new solar)
 - Provides **competition** for energy supplier – more markets for smaller players
 - **Transportation Electrification is increasing** the future portfolio size. (100,000 plug-in vehicles on roads today – 1300+ charging station in Bay Area)
 - Reduces the responsibility of the City and reliance on the General Fund for addressing some of the **actions associated** with the CAP



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The Customer Experience

- Customers automatically are serviced by the CCA (*by law – AB 117*).
Regulated Outreach shows utility customers how to OPT-OUT before program begins and provision are required for opt-out after initiation.
- Costs can be higher initially
*IOU exit fees can persist for 7+ years.
Green energy (light green or dark green) often warrants a premium price.
Sonoma estimates range from \$3.40 to \$9.40 per month dropping to \$(0.40) to \$0.75 per month in year 2032.*
- No change is made to how billing and service is handled
*Only line items for power supply are modified.
Transmission and distribution charges remain unchanged.*
- Electric power delivery reliability and priorities remain unchanged
*Distribution continues to be handled by PG&E
By law, distribution utility (PG&E) is not allowed to differentiate service based on power supplier.*
- Rental customers can participate in conservation programs
*Innovative schedules and programs can be offered to rental customers.
CCAs can initiate specific programs without new legislation.*
- Energy Customers can choose from whom they buy their power
Today the IOU is the ONLY choice.

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Local Government Responsibilities

- Elect to offer established CCA service
--- OR ---
- Create legal entity that forms CCA
- Pass Enabling Ordinance to offer or allow others to offer service
- With independent CCA, depending on charter and method of formation
 - Appoint representation to CCA board
 - Secure (repayable) start-up funding to establish or modify operation of existing CCA

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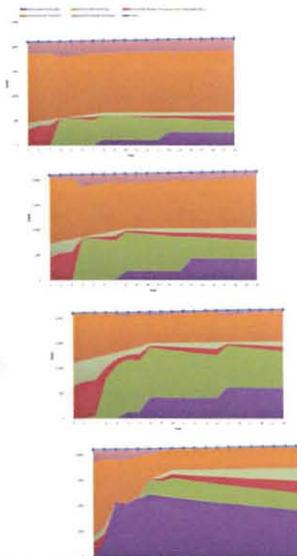
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Sonoma County - *example*

Consultants Evaluated 4 Scenarios

- Scenario 1 - Baseline
Meet State RPS standard
Low cost
- Scenario 2 - Transitional
Immediate 33% green, 51% by 2020
Power from mixed sources (renewable and non)
Power from local and from remote sites
- Scenario 3 - Aggressive
Immediate 51% green, 75% by 2020
Emphasize development of local resources; both large and small source
- Scenario 4 - Transformational
Immediate 20% green, 85% by 2020
Guided by CAP to build large amount of local power sources.
Target long-term cost reduction

Qualified Renewable Power Minimums
20% by 2013
33% by 2020



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Costs of Starting up

Startup - first 6 mo *(Recoverable after CCA launches)*

- Staffing and Professional Services
 - Marketing and Communications
 - Security deposits
 - Customer noticing and public meetings (at least 3)
 - Data Management B2B exchange w PGE
- PG&E Service Fees
- Miscellaneous Administrative and General Financial Security/Bond Carrying Cost
- Non-performance bond with PG&E (current rate under review)

First month Operating

- Working capital
- Generation prepayment expense and other project financing

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Mechanics of Starting up

CPUC Filing describing:

- Organizational structure of the program, its operations, and its funding
- Methods for entering and terminating agreements/contracts with other entities
 - A description of the third parties that will be supplying electricity under the program, including, but not limited to, information about financial, technical, and operational capabilities.
- The rights and responsibilities of program participants, including, but not limited to:
 - Consumer protection procedures, credit issues, and shutoff procedures
 - Rate-setting and other costs to participants
 - Provisions for disclosure and due process in setting rates and allocating costs among participants
- Description of service level
 - Universal access
 - Reliability
 - Equitable treatment of all classes of customers
 - Any requirements established by law or the CPUC concerning aggregated service.
- Termination of Program
 - Develop plan to be used only if CCA fails
 - After CPUC certification, need executed agreement of terms with PG&E to cover customer re-enlistment

After approval; CCA entity formation

- Create legal entity
- City council ordinance to offer service through CAA entity

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Sonoma 2013 - example

		2013	
Accounts**	Residential Accounts	144,000	
			956,000 MWH
	Other Accounts	21,000	
			1,024MWH
CCA fully loaded costs		\$169,000,000	
		0	
	CCA power costs		\$140,000,000
	CCA power reserves		\$12,800,000
	CCA Operating(various)		\$17,000,000
	Reserve		\$5,600,000
Exit Fees	Declines over 7yr	\$24,000,000	
\$/KWH to Customer (Delivered)	CCA	\$0.187	
	PG&E	\$0.172	

- Similar number of Accounts
- Very **different** profile of consumption

Avg initial cost change

- Risk \$225,000 if project abandoned
- Bridge funding repaid by first 24 month operations
- Other profits used to finance energy-related community projects

		Initiation	
Consulting		\$225,000	
	Initial Report		\$165,000
	Review		\$25,000
	Research		\$35,000
Initiation Staff	Initiating Agency staffing	\$300,000	
	6 month start-up	\$975,000	
PG&E	Fees and Coordination	\$300,000	
	CCA Bond & Deposits	\$700,000	
60 Days Ops		\$6,000,000	
			\$8,500,000

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Formation Questions Requiring Answers

- Resource Adequacy –
 - What is the 115% peak demand figure likely to be (S.C. County 16,000 GWH/yr – but what is peak load – 5x Sonoma ? – 2400 MW)
- What are the available sources of power for CCA
 - What is available in year one
 - What responsibility should the CCA assume in developing new sources?
 - What programs and innovative schedules should the CCA consider?
- How would CCA start
 - What phases might there be?
 - What are CCA's primary supply objectives/targets and when should it plan on meeting them?
 - Are there limitations the CCA should set in advance as to what activities it might include

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Renewable Energy Providers

- **Marin's renewable suppliers**
 - 8 original suppliers
 - Washington, Oregon and California
 - Solar, hydro, wind, biogas & biomass
 - From 2GW (Niles Canyon, WA) up to 36 GW (Tri Dam, CA)
- **Shell Energy North America**
 - Aggregator of above renewable suppliers
- **"Power Suppliers"**
 - Includes aggregators such as Shell Energy North American
 - Includes various agencies that trade R.E.C.'s
- **CleanPowerSF**
 - Also contracts with Shell Energy N.A.

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Mechanics of Starting up

Answer Market Analysis Questions:

- What is the real Market for the CCA
 - Projected Opt-Out
 - Participation by Industry
- Measure the interest of **surrounding communities** in participating in a South Bay CCA.
- Engage with the **Industrial Community** to measure interest and determine their specific energy needs.
 - (Can CCA replace existing Direct Access agreements - currently 6% in Sunnyvale)

Identify Sources of Local Supply:

Example: 9.5 MW (as of 2012) of installed solar capacity in Sunnyvale (5.1MW as of 2009)
560 documented solar installations in Sunnyvale (California Energy & California Public Utilities Commissions)

Figure what CCA charter should include:

- **Identify consultants** to help complete the initial study; that are also capable of preparing a CPUC CCA submission
- Highlight how CCA can help address the **actions of the Community's CAP**

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Next Steps Considered

- Measure the interest of **surrounding communities** in participating in a South Bay CCA.
- Engage with the **Industrial Community** to measure interest and determine their specific energy needs.
- **Identify consultants** to help complete the initial study; that are also capable of preparing a CPUC CCA submission
- Highlight the **actions of the Community CAP** that might be better orchestrated by a CCA

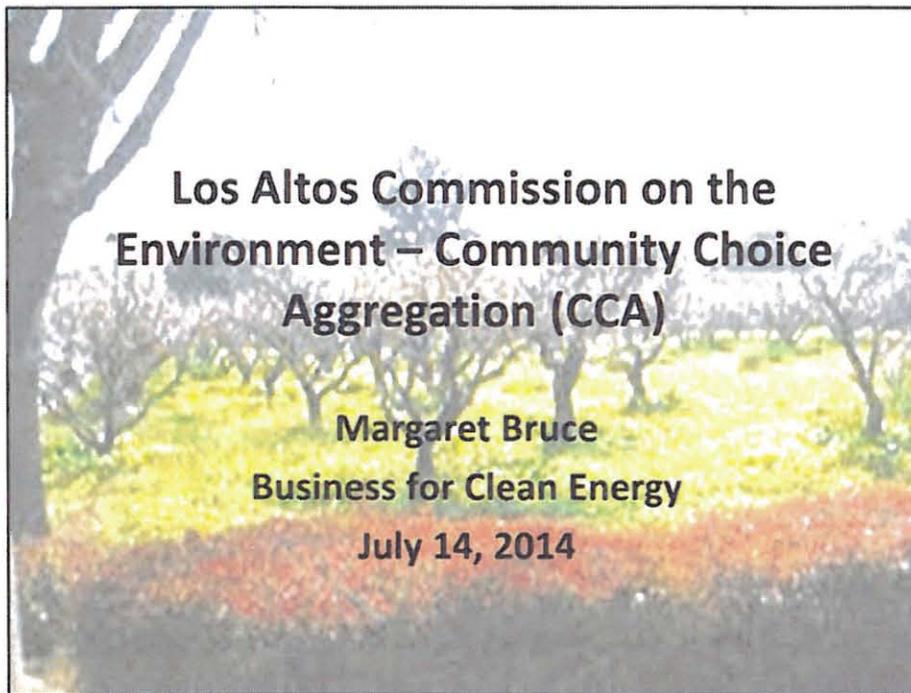
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What we saw

- The Presenter is interested, but no expert in this area
- A fast look at how we get power and how much we consume
- That early actions need to be taken to address Climate Change for both practical and legal reasons
- That Electric energy could be an effective component in how Sunnyvale's addresses its Climate Change Responsibilities
- That reliance on a CCA is potentially a large impact action that many communities are considering
- Engagement with the Sunnyvale **Industrial Community** is necessary in order to achieve the best results
- That early adopters of CCAs have made it easier to establish one quickly and with little interruption in our daily lives

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What is “Community Choice?” A Hybrid Model

Investor Owned Utility	Community Choice	Municipally Owned Utility
Energy Generation and Energy Efficiency	Energy Generation and Energy Efficiency	Energy Generation and Energy Efficiency
Energy Purchasing and Rate Setting	Energy Purchasing and Rate Setting	Energy Purchasing and Rate Setting
Own/Maintain Transmission Lines	Own/Maintain Transmission Lines	Own/Maintain Transmission Lines
Customer Service	Customer Service	Customer Service

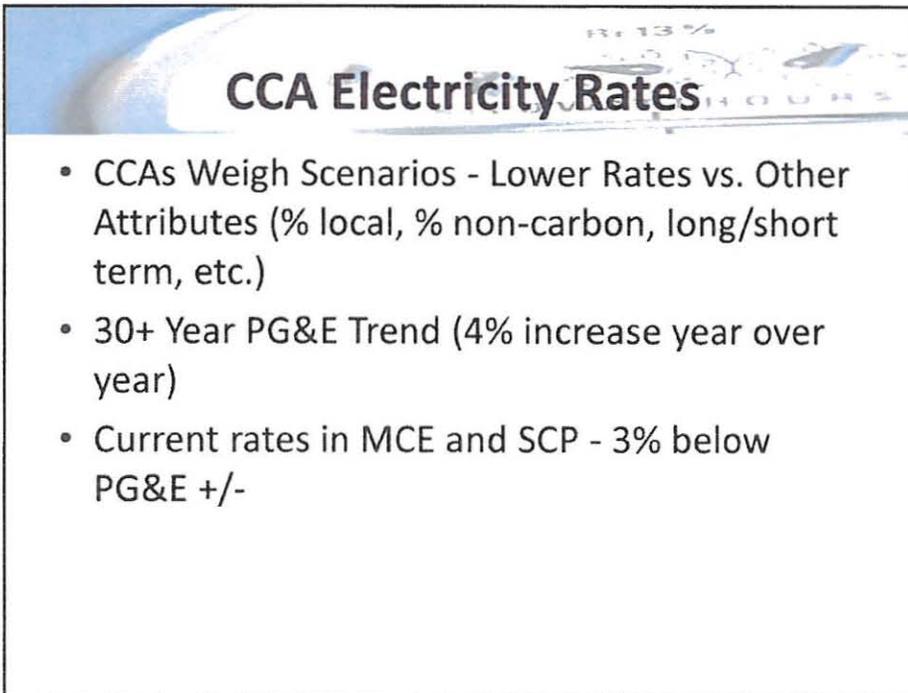
Why are Communities Interested?

- ✓ Consumer Choice
- ✓ Competitive Rates
- ✓ Local Control/Local Decision-making
- ✓ Improved Environmental Performance (GHGs)
- ✓ Community Economic “Multipliers”
- ✓ Renewable Energy Market Drivers
- ✓ Potential “Dividend” – Positive Feedback Loops for Energy Projects



CCA Electricity Rates

- CCAs Weigh Scenarios - Lower Rates vs. Other Attributes (% local, % non-carbon, long/short term, etc.)
- 30+ Year PG&E Trend (4% increase year over year)
- Current rates in MCE and SCP - 3% below PG&E +/-



GHG Emissions

- Climate Action Plan Goals –
- This scenario > all other Los Altos CAP actions.

PG&E Emissions (2012) ("all power sources")	MCE Emissions (2012)	Los Altos Electricity Use (2005 Inventory)	Los Altos GHG via PG&E	Los Altos GHG at MCE emissions rate
445 lbs/MWh	373 lbs/MWh	148,965,459 kWh	33,042 metric tons CO2	25,226 metric tons CO2

Δ 7,815
Metric Tons



- Establishing the JPA
 - Structure/Governance/Funding
 - Implementation Plan and CPUC Submittal

Hypothetical Timeline with Sunnyvale leading the local effort

- Small group convened (now)
 - Preliminary Feasibility Study (Oct '14)
 - To SV Council in Jan '15
 - Begin Full Feasibility Study/Implementation Plan
 - Engage community stakeholders and other jurisdictions (Q1 – Q3 '15)
 - JPA formation, City Resolutions, Financing arrangements
 - RFP for Contract/s (Procurement service and Energy contracts (Q4 '15)
 - Q1 '16 Launch

Community Choice

A Game-Changing Innovation to Build the Energy System of the Future

A Community Choice energy program buys and generates electricity for businesses and residents. It introduces competition and choice to the electricity market and unleashes innovative businesses to create an Internet of energy. PG&E continues to provide transmission, distribution, billing, and maintenance. A local board oversees professional energy service providers that purchase power and offer innovative programs for local power needs.

Independence

We are in the midst of an energy revolution. We no longer need to rely on power companies with a one size fits all approach approved by distant regulators. Communities can set their own energy priorities and design programs that work locally.

Innovation

Monopoly utilities like PG&E cannot innovate at the pace needed. They are too regulated and too invested in outdated infrastructure. Community Choice is a versatile platform that favors smart buildings and local micro-grid development.

Leadership

Silicon Valley is a world-renowned hub of innovation. Brilliant minds, economic power, and networked resources can create the energy system of the future. The new energy model pioneered here can be replicated throughout the world.

Clean Power

Creative financing tools enable renewable energy to match the price of fossil fuels, and Community Choice programs are more willing and able to maximize energy efficiency. Centralized power plants and long distance power lines are no longer the cheapest approach.

Economic Growth

Silicon Valley currently spends more than \$1 billion per year on electricity generation, nearly all of which leaves the Valley. This money can be steadily redirected toward local programs that keep energy dollars in the community.



Community Choice: A Revolutionary Change

In 2001 PG&E went bankrupt. It was the third largest bankruptcy in U.S. history. This bankruptcy cost ratepayers, taxpayers, and shareholders over \$40 billion. In the aftermath, California lawmakers instituted reforms that opened up opportunities for competition. In 2002 they established Community Choice, a means by which competitors could enter the energy market. Lawmakers believed that such reforms were needed not only to prevent another energy meltdown, but also to enable the transition from fossil fuels to renewables.

California's first Community Choice program has been operating in Marin County for more than three years. A program in Sonoma County will go live in 2014. At least ten other California communities are now considering Community Choice. Five other states also have Community Choice programs.

Community Choice energy programs enable the creation of advanced energy systems much faster than traditional utilities. Having a power provider that is a willing partner in creating local power is a game changer for the entrepreneurs who are developing new energy technologies.

Competitive advantages

A new local power provider is in a strong position to compete with large utilities. Many qualified energy professionals can be enlisted to oversee bids for electricity supply and manage energy programs. Hiring them locally is more efficient than relying on a remote, bureaucratic regulatory agency to make energy decisions.

Community Choice energy providers are non-profit entities with low overhead. They do not have to grow to satisfy shareholders and do not pay taxes.

Cost-effective clean power

California's one operational Community Choice program, Marin Clean Energy, has competitive rates with PG&E while offering much greener power.

A lot of electricity is lost over long distance power lines. A local electricity provider focuses on small-scale power sources closer to consumers.

Energy efficiency and reducing consumption at peak demand times are the cheapest and cleanest energy options, and have never been pursued aggressively by traditional utilities. Community Choice programs can tap this potential and bundle it with new local generation, using inexpensive "negawatts" to fund more clean megawatts.

BUSINESS for CLEAN ENERGY

Contact: Margaret Bruce
(408) 605-2761
mbruce@biz4cleanenergy.com
www.biz4cleanenergy.com



Community Choice – FAQ

What is Community Choice?

Community Choice energy programs, formally known as Community Choice Aggregation (CCA) under California state law, is a local program that buys and generates electricity for residents and businesses and may also administer localized energy efficiency programs.

Why pursue CCA?

CCA is a means of establishing local control over decision-making about how to spend millions of dollars of an existing revenue stream in any given jurisdiction. Currently most communities have limited ability to influence decision-making about electricity rates and policies. CCA brings that decision-making closer to home in a public arena accessible to businesses and residents.

How can CCA help businesses to obtain competitive, stable energy costs? By incentivizing customers with a customized, integrated suite of services including financing, energy efficiency, renewable energy generation, automated demand response, and smart grid technology, businesses can cut their energy use and costs.

What are the business opportunities for growth under CCA? Rooftops, parking lots, and other under-utilized spaces can be assets that generate energy and revenue as surplus power is sold into the grid, enabled by Community Choice.

How does CCA enhance overall community economics including job creation? Keeping the millions of dollars of electricity payments now leaving your community will stimulate the local economy and create much needed jobs, especially for building trades.

What are the potential benefits of CCA?

CCA offers any number of benefits depending on a given community's values and reasons for launching a CCA. Benefits may include enhanced consumer choice, competitive rates, market competition, local economic benefits, private sector investment opportunities, opportunities for technology innovation, greenhouse gas reductions, and energy security.

What are the risks of CCA?

The ultimate risk is that a CCA fails. Contingencies for that unlikely event are established in the original 2002 CCA law and further California Public Utilities Commission regulations that allow for a smooth transition back to full bundled service from the distribution utility without a disruption of service.

For more information, please contact Margaret Bruce:
margaret@manzanita-ca.com, 408-605-2761 (mobile).



Community Choice – Background

What laws allow CCA?

Assembly Bill 117 (2002) and Senate Bill 790 (2011) empower local governments to aggregate the ratepayers in their jurisdictions and provides a code of conduct that requires the distribution utility to cooperate with the CCA.

How does CCA work?

In CCA, the distribution utility continues to own and maintain the transmission and distribution infrastructure and continues to handle metering and billing. CCA is a line item on the electric utility bill that replaces the "generation" line item.

Has CCA been done before?

Yes. Six states have CCA laws including California. In California, Marin Clean Energy launched its program in 2010. About 80 percent of customers in the program have opted to keep getting renewable power from Marin Clean Energy even though they have the choice of switching to PG&E. CCAs have been operating successfully in Massachusetts and Ohio since the late 1990s.

Is CCA another big government bureaucracy?

CCAs do not require large staffs. Across the country CCA staff sizes range from two to about fifteen.

How is CCA funded?

No taxpayer funds are involved in CCAs. CCAs require seed money during the formation period, but ongoing funding is all ratepayer based. In most cases, reimbursement of seed funds for start-up is folded into the rate structure in the early years of the program.

Who sets rates?

Under a CCA, after the public utilities commission has certified the CCA's implementation plan, the CCA takes on the role of setting rates and setting policies that incentivize energy resource development.

How are ratepayers protected?

CCAs introduce a choice for consumers where none exists. It is only possible to establish CCAs in monopoly investor-owned utility service territories. As such, CCAs offer the best safeguard possible for ratepayers – competition. In addition, CCAs are public, not-for-profit entities, dedicated to serving the public interest.

Why does CCA use an "opt-out" choice structure?

Under state law, residents and businesses are automatically enrolled when a CCA program begins in their area and have the option of opting back to the investor-owned utility. A critical mass of load is required at launch in order to establish a viable program. Because opt-in rates are known to be low even for programs that clearly benefit consumers, an opt-out system is necessary to achieve that critical mass.

Useful Links and References

Sonoma Clean Power: Main website: <http://sonomacleanpower.org/>

Sonoma Clean Power: "About" page <http://sonomacleanpower.org/about-scp/> This page has links to:

- Joint Powers Agreement
- Final Implementation Plan
- Draft Implementation Plan Executive Summary
- CCA Feasibility Study
- Residential Survey
- Commercial Survey
- Residential focus group summary
- Commercial in-depth interviews

Marin Clean Energy: Main website: <http://www.mcecleanenergy.org/>

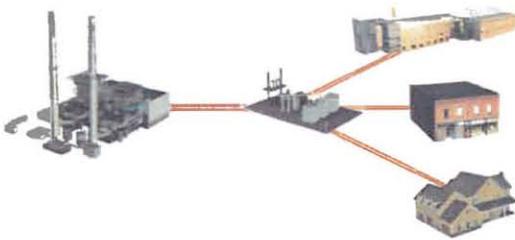
MCE's FAQ page: <http://www.mcecleanenergy.org/faq/>

California Public Utilities Commission, Community Choice Aggregation information - http://www.cpuc.ca.gov/PUC/energy/Retail+Electric+Markets+and+Finance/070430_ccaggregation.htm



We Are Here - CENTRALIZED GRID

- ✓ Linear
- ✓ Non-Renewable Dependant
- ✓ Closed Loop
- ✓ Inefficient



We Need To Be Here - SMART GRID

- ✓ Intergrated
- ✓ Renewable
- ✓ Distributed
- ✓ Community Scaled
- ✓ Efficient



Supporting Choice for Cities

- Public Sector Climate Task Force – comprised of cities and counties working collaboratively to reduce greenhouse gas emissions
- Smart Energy Enterprise Development Zone (SEEDZ) – private and public interests addressing energy challenges together
- Goal is to provide information our members can use to assess their energy choices
- Support powering the grid with clean & renewable energy sources, and recognize the critical role that competition and choice play



Joint Venture
SILICON VALLEY



- Steve Tate, Mayor, City of Morgan Hill & Chair
- Environmental Sustainability/Climate Action Subcommittee:
 - Jim Griffith, City of Sunnyvale
 - Margaret Abe-Koga, City of Mountain View
 - Burton Craig, City of Monte Sereno
 - Rod Sinks, City of Cupertino

- **Consumer Choice in Energy**
 - Joe Como, Director, Office of the Ratepayer Advocate, California Public Utilities Commission
- **Community Choice Energy Programs in Operation**
 - Geof Syphers, CEO, Sonoma Clean Power
 - Jamie Tuckey, Communications Director, MCE Clean Energy



Joint Venture
SILICON VALLEY



Marin Clean Energy

A not-for-profit, community based
renewable energy provider



About MCE

Agency formed in 2008

Service started in May 2010

Serving 125,000 MCE customers in Marin & Richmond (approx. 77%)

Reduced >131 million lbs of greenhouse gases

Saving MCE customers \$5.9 million in 2014

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Customer Choice



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MCE Power Sources 2010 - 2013

- Contracts with 12 energy suppliers
- More than 54 MW of new CA renewable energy under development for MCE customers
- Enough clean energy to power approximately 23,000 homes per year

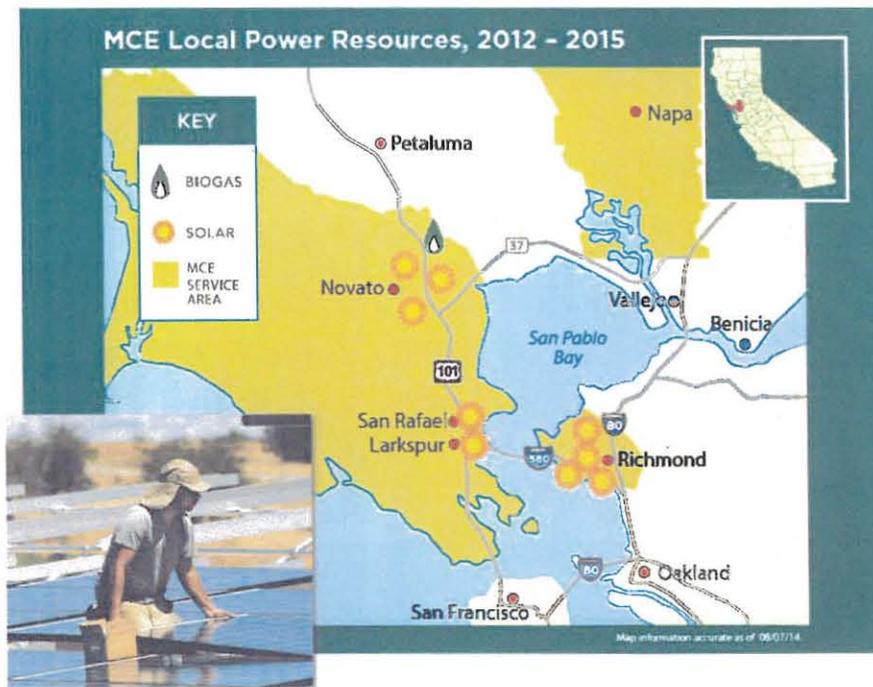


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Community Benefits



MCE Local Development



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Local Programs

Electric vehicle charging stations

Tesla pilot program

Bidgley Home Area Network pilot program

Marin Green Business program



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\$4.1M Energy Efficiency Program

Funded through Public Purpose Charge

No-cost energy assessments for multifamily properties and businesses

- Valued at \$3,000 - \$5,000

Cash rebates

- Averaging 25-60% of project costs

No-cost direct installs for multifamily tenant units

Loans with on-bill repayment



Local Jobs

More than 1,300 California jobs created and supported by MCE in less than 3 years

20 MCE employees

54 service vendors (34 local)

Energy efficiency jobs through: Rising Sun Energy Center, RichmondBUILD, Marin City Community Development District



Ruben Pendroza, RichmondBUILD graduate



Jamie Tuckey
 Communications Director
jtuckey@mceCleanEnergy.org
 (415) 464-6024

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	\$36.24	\$36.24	\$36.24	\$36.24
Generation	\$46.75	\$40.13	\$45.21	\$72.14
PG&E Fees	-	\$5.91	\$5.91	\$5.91
Total Cost	\$82.99	\$82.29	\$87.37	\$114.29

- 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 PGE

Commercial Cost Comparison

	PG&E	MCE Light Green	MCE Deep Green	MCE Local Solar
1,405 kWh A-1/Com-1	22%	50%	100%	100%
Delivery	\$137.97	\$137.97	\$137.97	\$137.97
Generation	\$135.55	\$111.00	\$125.05	\$199.51
PG&E Fees	-	\$14.49	\$14.49	\$14.49
Total Cost	\$273.52	\$263.46	\$277.51	\$351.97

- 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 PGE

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2013 Electric Power Content Mix

	PG&E	MCE Light Green	MCE Deep Green
Renewable	22%	51%	100%
Bioenergy	4%	6%	0
Geothermal	5%	0	0
Small hydroelectric	2%	12%	0
Solar	5%	<1%	0
Wind	6%	33%	100%
Large Hydroelectric	10%	10%	0
Natural Gas	28%	0	0
Nuclear	22%	0	0
Unspecified	18%	39%	0
TOTAL	100%	100%	100%
2012 GHG Emissions (lbs CO₂e/MWh)	445	380	0

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Seven New Local Projects Underway

1 MW solar carport shade structure in Novato (Q2, 2015)

Feed-In Tariff Projects:

286 kW rooftop solar at CostPlus building in Larkspur (Q4, 2014)

999 kW solar in Greenbrae (Q1, 2015)

1.5 MW solar at Cooley Quarry in Novato (Q1, 2015)

4 MW biogas at Redwood Landfill in Novato (Q1, 2016)

Local Renewable Development Fund Projects:

2-10 MW solar at Richmond Chevron-owned property(Q3, 2015)

1.5 MW solar at Richmond Port brownfield site (Q2, 2016)

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Pursuing Choice

- Barbara Hale, Assistant General Manager,
Power, San Francisco Public Utilities
Commission



Joint Venture
SILICON VALLEY



Community Choice Aggregation: A Regulatory Perspective

Market Structure & Design Section
Energy Division
California Public Utilities Commission
By Will Maguire, Esq.

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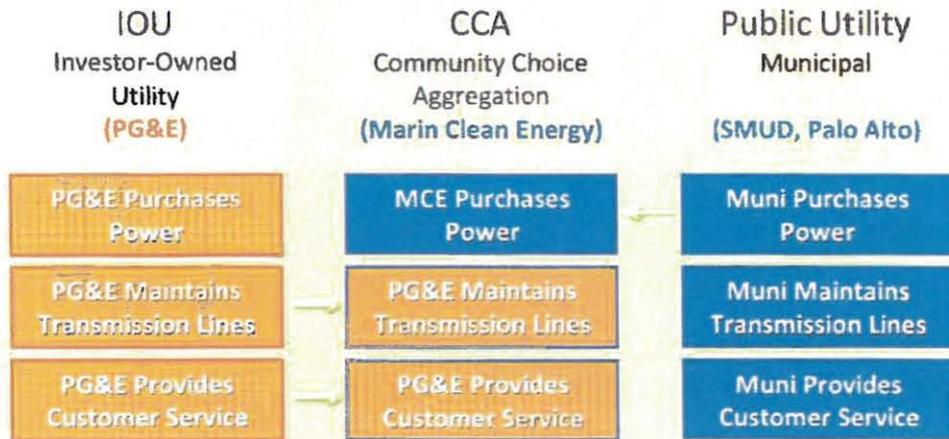


Community Choice Aggregators

- “CCAs” are a system adopted into law in the states of [Massachusetts](#), [Ohio](#), [California](#), [New Jersey](#), [Rhode Island](#), and [Illinois](#) which allows cities and counties to aggregate the buying power of individual customers within a defined jurisdiction in order to secure alternative energy supply contracts on a community-wide basis
- Goal: More local control of utility service
- Goal: More renewable energy than IOU (Critique of Renewable Energy Credits (RECs)=“greenwashing”?)
- Consumers not wishing to participate can **opt-out**

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Source: <http://www.neuralenergy.info/2011/06/cca.html>

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CCA History in CA

- Authorized by AB 117 (Migden, 2001)
- Expanded by SB 790 (Leno, 2011)
 - SB 790 also required CPUC to open Rulemaking to adopt a Code of Conduct, associated rules, and enforcement procedures, to govern the conduct of an electrical corporation relative to the CCAs
- **D. 12-12-036**

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Code of Conduct highlights

- Limits utility marketing or lobbying against CCAs
- No discrimination against CCA customers or tying of benefits to bundled service
- Bi-annual audits of utility compliance starting in 2015

25



CCAs: CPUC has a light regulatory touch

- P.U. Code 366.2 permits CCAs to enroll new customers unless they opt out of CCA service.
- P.U. Code 366.2 (c)(3) requires CCAs to register with the CPUC and submit an Implementation Plan and Statement of Intent for approval. The implementation plan must contain all of the following:
- (A) An **organizational structure** of the program, its operations, and its funding. (B) **Rate setting and other costs** to participants. (C) Provisions for **disclosure and due process** in setting rates and allocating costs among participants. (D) The methods for **entering and terminating agreements** with other entities. (E) The **rights and responsibilities** of program participants, including, but not limited to, consumer protection procedures, credit issues, and shutoff procedures. (F) **Termination of the program**. (G) **A description of the third parties that will be supplying electricity** under the program, including, but not limited to, information about financial, technical, and operational capabilities.

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CCAs: CPUC has a light regulatory touch

In addition, a CCA shall provide for the following:

- Universal access
- Reliability
- Equitable treatment of all classes of customers
- Any other requirements established by state law or by the commission
 - **Public Utilities Code 366.2 (c)(4)**

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CCA Registration Packet

CCA's registration packet shall include:

- Service Agreement with the underlying utility
- Evidence of insurance, self-insurance or a bond that will cover such costs as potential re-entry fees, penalties for failing to meet operational deadlines, and errors in forecasting.
 - \$100,000 interim bond amount
 - **CPUC Decision 05-12-041 & Resolution E-4113**

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“Existing” CCAs

- Marin Clean Energy (MCE)
- San Joaquin Valley Power Authority (SJVPA)
- Sonoma Clean Power (SCP)
- Lancaster Community Choice Aggregation (LCCA)
- CleanPowerSF

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CCAs: CPUC's Role

- P.U. Code 366.2 (c) (11) requires the Commission to **proactively expedite the complaint process** for disputes regarding an electrical corporation's violation of its obligations pursuant to this section in order to provide for timely resolution of complaints made by community choice aggregation programs.
- Informally mediate disputes between IOU and CCAs



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- Please contact me with questions:



- http://www.cpuc.ca.gov/PUC/energy/Retail+Electric+Markets+and+Finance/070430_ccaggregation.htm CCAAs
- wm4@cpuc.ca.gov, 415-703-2642

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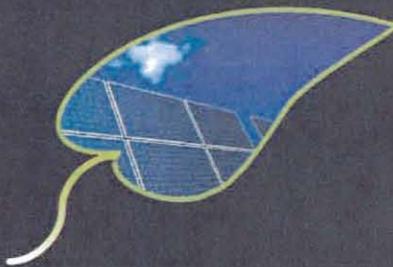


Updates from Local Agencies

- Melody Tovar, Regulatory Programs Division Manager, City of Sunnyvale
- Kerrie Romanow, Director of Environmental Services, City of San Jose
- Frank Maitski, Deputy Operating Officer, Santa Clara Valley Water District



Joint Venture
SILICON VALLEY



New Energy Choices Workshop

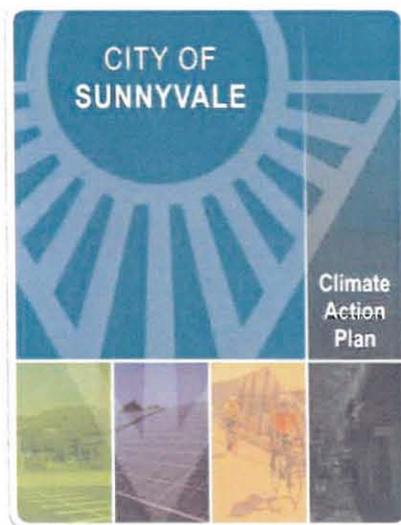
Community Choice Aggregation – Sunnyvale Study

Melody Tovar
City of Sunnyvale | Environmental Services Department
mtovar@sunnyvale.ca.gov

Interest Sparked



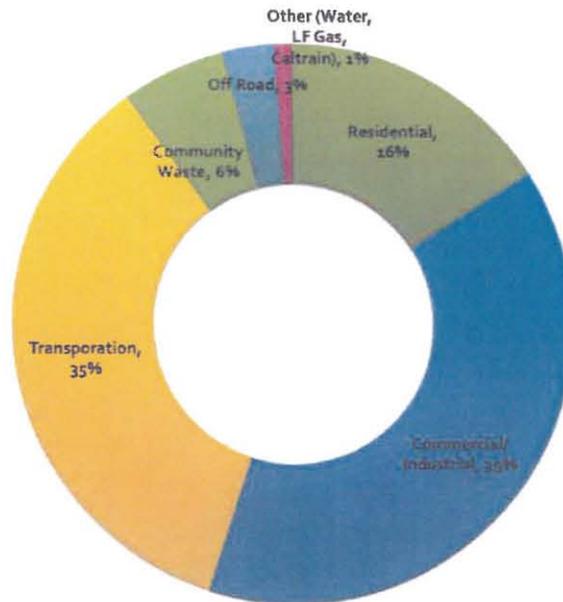
- Climate Action Plan adopted May 2014
- Sets GHG Reduction Targets for 2020 and 2035
- Exceeds AB32 Target



Greenhouse Gas Profile



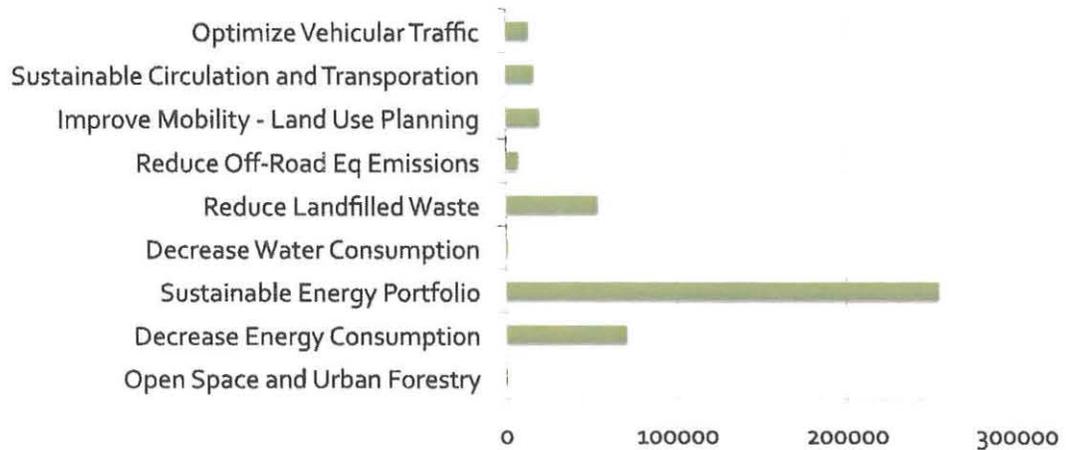
- Energy Portfolio is 55% of GHG
- Res/Comm Electricity alone is 37%



CCA Rises to the Top



2020 GHG Reductions (MTCO_{2e}/yr)



CCA realizes more GHG emission reductions than all other CAP measures **COMBINED!**

CCA – Powerful Strategy



- **Systematic** Change
- Big **Impact**
- Can Implement **Quickly**

CCA GHG Reductions

2020: 233,400 MTCO₂e

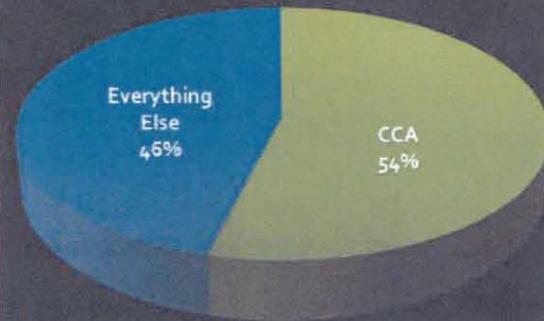
2035: 338,420 MTCO₂e

Assumptions for 2020 Reductions

80% participation rate

60% in Light Green (50% renewables)

20% in Dark Green (100% renewables)



CCA Study Emerges



- Prioritized by Council for 2014
- Funded for up to \$30,000
- “Pre-feasibility” Study:
 - Cities interested in a South Bay CCA
 - Costs and risks to establish a CCA
 - CAP actions that could be implemented through a CCA
 - How best to move forward, including framework and founding/lead agency

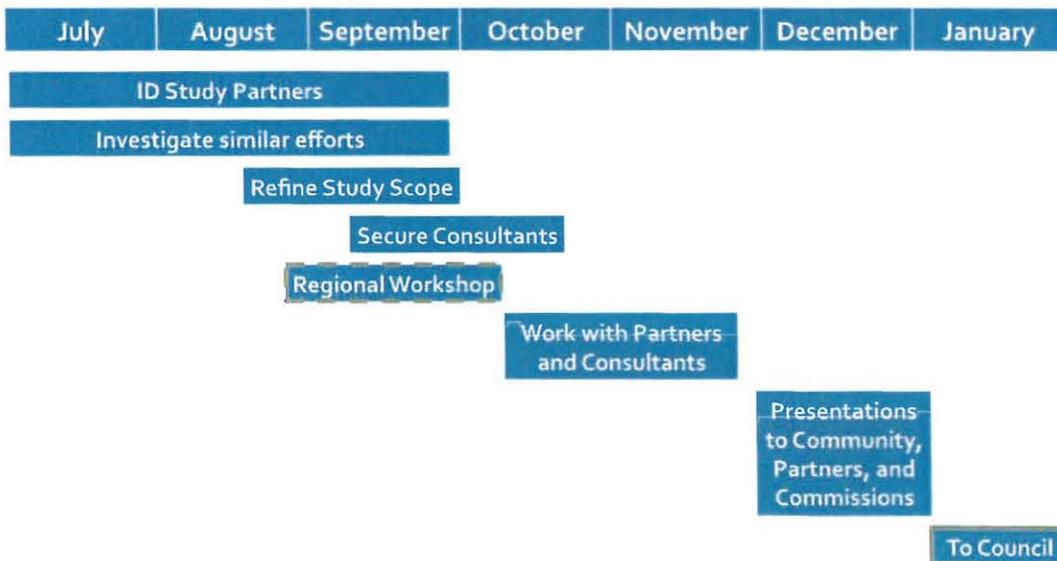
South Bay Interest Grows



- Contributing Funding
 - Sunnyvale
 - Mountain View
 - Cupertino
- Interest Expressed
 - Los Altos Hills
 - Monte Sereno
 - Morgan Hill
 - Santa Clara County
 - San Mateo County



Study Timeline



The Journey Begins

Gathering Info & Interest	Feasibility Analysis	CCA Formation	CCA Operation
<ul style="list-style-type: none"> • ID potential agency partners • ID opportunities, costs, and risks • Investigate other CCAs • Inform community and gather feedback • Framework for next steps 	<ul style="list-style-type: none"> • ID partners & funding • Technical Study: load and rate analysis, economics, supply options, environmental outcomes • Community outreach & input 	<ul style="list-style-type: none"> • Resolutions of support • JPA Ordinance • Implementation Plan to PUC • Service Agreements with PG&E • Bridge financing to revenue • Customer noticing 	<ul style="list-style-type: none"> • Board of Directors • Contracts and Agreements • Conservation & Renewables programming • Customer service
\$ X0 K	\$ X00 K	\$ X M	\$ XXX M



Plenty of Questions

How much funding can be available for local conservation and renewables programs?

How important is the cost analysis?

How are existing customers with rooftop solar treated?

How fast can we get this done?

How are competing local interests addressed?

What happens to Direct Access customers?

How well do the implementation costs scale to community size?

What role does the host or founding agency play?

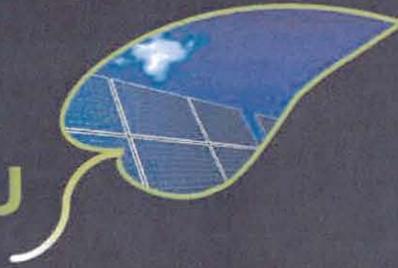
What do the operations look like?

Can CCA customers access IOU and State programs?

Is there enough Green Energy out there?

Who ops out?

Thank You



Melody Tovar
City of Sunnyvale | Environmental Services Department
mtovar@sunnyvale.ca.gov
(408) 730-7808

Questions & Answers

- Kara Gross



Joint Venture
SILICON VALLEY

Lunch & Roundtable Discussions

- **Introduction of Elected Officials**
 - Steve Tate
- **Host City Welcome**
 - Jim Griffith, Mayor, City of Sunnyvale



Lessons Learned from the Implementation of Community Choice Energy Programs





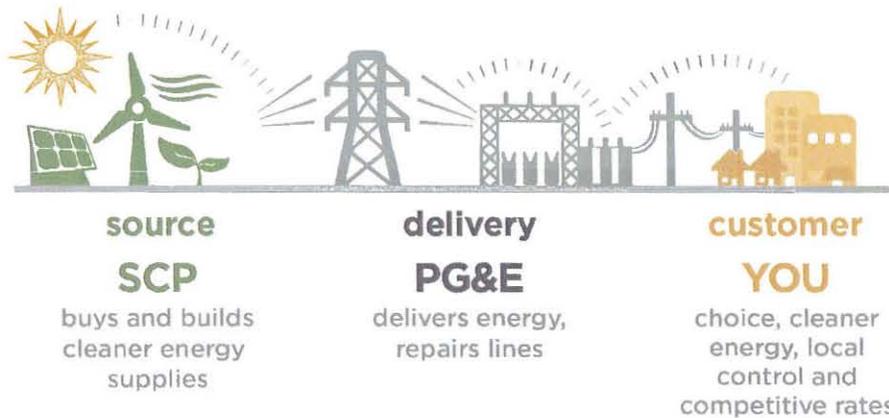
Local. Renewable. Ours.

CCA's Top Ten List



Local. Renewable. Ours.

1. Explain with a Picture



2. Use the Right Words

Default Provider *not* Opt-out Program

Community Choice -- who needs aggregation?

3. Answer the Hard Questions

If we share a grid, how do I know *my* electricity is cleaner?

Really *learn* the answers.

4. Set Achievable Goals

PG&E already has very low emissions

Target a small reduction at a lower price

5. Create metrics, not plans

- ✓ Track total emissions from household energy
- ✗ Build 100 MW of solar power

6. Keep Supply Simple

Use few, diverse sources

Use 3 or 4 standard contracts

7. Programs Can Wait

Do not look at utilities for lessons

Think taco truck dance party home retrofit, not
LED lighting giveaway

SCP Generation Charge

8. Show the Bill

ENERGY STATEMENT		Account No: 1023456789-0
www.pge.com/MyEnergy		Statement Date: 07/17/2014
		Due Date: 08/07/2014
Service For:	Your Account Summary	
Brenda Alvarez	Amount Due on Previous Statement	\$404.99
1234 Main Street	Payment(s) Received Since Last Statement	-404.99
Apt. 3C	Previous Unpaid Balance	\$0.00
Santa Rosa, CA 95404	Current PG&E Electric Delivery Charges	\$83.15
	Sonoma Clean Power (SCP) Electric Generation Charges	42.97
	Current Gas Charges	34.91
Questions about your bill?	Total Amount Due by 08/07/2014 \$161.03	
24 hours per day, 7 days per week		
Phone: 1-866-743-0335 or		
www.pge.com/MyEnergy		

9. Compete Like You Mean It

Killer rates = more participation = more impact

Avoid a primary supplier

Hire experienced power industry experts onto staff

10. Don't Wait

Community choice is viable for communities with:
200,000 or more people, and
Interest in competitive alternative to utility, and
Climate goals

Top 5 Tips for Elected Officials



1. Understand how CCA achieves your local policy objectives
2. Make the economic and business case
... remember, CCA is a business concern, *not* a political football
3. Know the rules, do your homework, but also learn from others
4. Insist on robust public education; develop broad local support
5. Stick to your knitting... or, CCA is not the kitchen sink



*The Thick Skin Rule:
"Don't Blink Unless You Have To"*





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

CCA is the path forward.

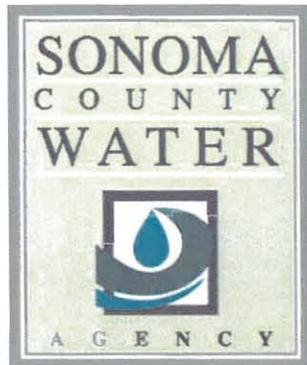
For More Information:

Shawn Marshall, Director
shawnmarshall@LEANenergyus.org
www.LEANenergyus.org
(415) 888-8007



Harnessing the Power of Communities

LEAN Energy 5/15/2011



Cordel Stillman

Deputy Chief Engineer
Cordel.Stillman@scwa.ca.gov

Why the Water Agency?



- Experience in power generation
 - Solar, Hydroelectric
- Member of Power and Water Resources Pooling Authority (PWRPA)
- Energy Policy
 - Board approved
 - Projects of Regional Benefit
- Experience with a multi-jurisdiction enterprise (water transmission system)
- Synchronous Boards
 - SCWA/County of Sonoma

Initial Approach

- Our goal was to be neutral
- Provide Information on
 - Risks
 - Benefits
 - Process
- Answer Questions
- All inclusive



Thorough Analysis

- Feasibility Study
 & Peer Review of Feasibility Study
- Focus Groups to determine public interest
- JPA Formation
- Outreach to cities
- Draft Implementation Plan
 & Peer Review of Draft Implementation Plan



The Real Reason?

- Sonoma County Water Agency General Fund
 - Derived from a small portion of County Property Tax
 - Can be used at the discretion of our Board and General Manager
 - Over 2.5 years we expended \$1.7M
 - Tracked costs, and converted costs into a loan to SCP
 - Loan to be paid back with interest over 5-7 years

On-going Involvement

- Technical Assistance
 - Local Renewable Resources Plan
- Project Development
 - 36 MW of solar in development
 - Local Airport
 - Floating Solar
- Outreach to other communities
 - Presentations/Mentoring/Etc.

The End



Top Governance Issues & Risk Concerns Emerging CCA's Must Address

- Steve Shupe, Deputy County Counsel, County of Sonoma
- *See handouts*



Questions & Answers, Wrap-up

- Jeff Byron, Cleantech Open Co-chair





TO: Environmental Commission

FROM: J. Logan, Assistant City Manager
Jim Gustafson, Public Works Director

SUBJECT: New Energy Choices for Silicon Valley

RECOMMENDATION:

Receive a report concerning the forum on New Energy Choices for Silicon Valley

BACKGROUND

California Assembly Bill 32 and Senate Bill 375, along with environmental concerns and economic factors, encouraged many cities to engage in activities that reduce greenhouse gas (GHG) emissions 15% from current levels by 2020 and achieve an 80% reduction by 2050. The Environmental Commission began joint activities with staff to investigate solution to reduce greenhouse gas (GHG) emissions and to gather data for analysis that resulted in the International Council for Local Environmental Initiatives (ICLEI) City of Los Altos Municipal Inventory Report and the Community Greenhouse Gas Inventory Report. Council adopted those reports on September 22, 2009 and May 25, 2010 respectively. The Environmental Commission 2009/10 Work Plan and as well as subsequent Work Plans set GHG education and outreach activities that focused on targets for reductions of GHG emissions.

On December 10, 2013, Council adopted the City of Los Altos Climate Action Plan (CAP) and set forth activities to reduce greenhouse gas (GHG) emissions, prepare an emissions inventory update, once data for 2013 is available, and to direct staff to provide a status update in mid-2014.

On July 8, 2013, the Environmental Commission received a special presentation by Gerry Glaser, Sustainability Commissioner and Chair of Horizon 2035 Committee, City of Sunnyvale, on the Community Choice Aggregation (CCA) as one of the methodology to reduce GHG emissions.

Environmental Commissioner Hedden spoke as a citizen at the Council meeting on May 27, 2014 and encouraged Council to consider joining local agencies, namely, the Cities of Mountain View and Sunnyvale that are forming a feasibility study to explore CCAs. Council noted the CCA item as a future agenda item. City staff is exploring information about the CCA feasibility study and has contacted other local agencies for updates.

At the June 9, 2014 Environmental Commission meeting, the Commission assigned a CCA subcommittee, composed of Commissioners Eyre, Bray and Chair Hedden, to engage in further

study of the issue. The subcommittee arranged for Margaret Bruce, independent consultant with Business for Clean Energy, to give a presentation at the July 14, 2014 Environmental Commission meeting and to provide an overview and information about CCAs and to answer questions.

At the August 11, 2014 Environmental Commission meeting, Dustin Clark, Sustainability Coordinator, City of Sunnyvale, provided a presentation and answered questions about the Sunnyvale CCA feasibility study.

Mayor Pro Tem Jan Pepper, Council Member Jarrett Fishpaw and Public Works Director Jim Gustafson attended a forum concerning New Energy Choices for Silicon Valley on September 17, 2014. The forum was sponsored by Business for Clean Energy, the Cities Association of Santa Clara County, and Joint Venture Silicon Valley, and attendance was limited to two Council members and one staff member from each jurisdiction. There were approximately 75 attendees from the various municipalities in Silicon Valley and energy industry representatives present. The topics covered lessons learned from several other jurisdictions that have implemented or are pursuing alternative energy sources for their residents and businesses.

DISCUSSION

The forum brought together speakers from established joint power authorities (JPAs) that are operational with alternative energy sources including Marin Clean Energy (MCE) and Sonoma Clean Power. The agenda for the forum is provided as Attachment A. Their presentations described how these entities have been able to provide its customers with electrical power that costs less and uses more renewable sources than PG&E currently uses. In each of those JPAs, PG&E still provides distribution of electricity to the customers and bills customers for the JPA's production costs and PG&E distribution costs. PG&E then reimburses the JPA for the energy provided by the JPA.

San Francisco Public Utilities Commission's Assistant General Manager for Power presented the status of its pursuit of Community Choice, noting it is an endeavor that has been in progress for 13 years and is still ongoing. The entirety of the presentation is provided as Attachment B.

This report demonstrates the long-standing commitment and activities of the City and the Environmental Commission to understand the components of GHG usage by the City and Los Altos community and the CAP plan and methodologies for reduction efforts. CCAs provide yet another source of reduction available to agencies.

Council is now poised to discuss issues involved in the feasibility of CCAs and if joining with other agencies in this endeavor is timely or warranted.

There is no recommendation for Environmental Commission action at this time, pending Council direction.

Attachments:

- A. New Energy Choices for Silicon Valley Forum Agenda
- B. Presentation on Community Choice



DATE: February 9, 2015

AGENDA ITEM # 5

TO: Environmental Commission

FROM: J. Logan, Staff Liaison

SUBJECT: Climate Action Plan and Community Choice Aggregation Feasibility Study

RECOMMENDATION:

Receive information regarding Climate Action Plan and Community Choice Aggregation

BACKGROUND

On December 10, 2013, Council adopted the City of Los Altos Climate Action Plan (CAP) and set forth activities to reduce greenhouse gas (GHG) emissions, prepare an emissions inventory update, once data for 2013 is available, and to direct staff to provide a status update in mid-2014.

On July 8, 2013, the Environmental Commission received a special presentation by Gerald Glaser on the Community Choice Aggregation (CCA) as one of the methodology to reduce GHG emissions in accordance with the CAP.

DISCUSSION

Commissioner Hedden spoke as a citizen at the Council meeting on May 27, 2014 and encouraged Council to look into the feasibility of joining local agencies, namely, the Cities of Mountain View and Sunnyvale that are forming a feasibility study to explore CCAs. Council noted the CCA item as a future agenda item. City staff is exploring information about the CCA feasibility study and has contacted other local agencies staff for updates.

At the June 9, 2014 Environmental Commission meeting, the Commission discussed the CCA feasibility study, and assigned the CCA subcommittee, composed of Commissioners Eyre, Bray and Chair Hedden, to engage in further study of the issue and to prepare a presentation for Council. The subcommittee arranged for Margaret Bruce, independent consultant with Business for Clean Energy, to give a presentation at the July 14, 2014 Environmental Commission meeting to provide an overview and information about CCAs and to answer questions.

At the August 11, 2014 Environmental Commission meeting, Dustin Clark, Sustainability Coordinator, City of Sunnyvale, provided a presentation and answered questions about the Sunnyvale CCA feasibility study.

Mayor Pro Tem Jan Pepper, Council Member Jarrett Fishpaw and Public Works Director Jim Gustafson attended a September 17, 2014 forum titled "New Energy Choices". A staff memo was

presented to the Environmental Commission at the October 13, 2014 meeting. This memo was revised and presented to the Environmental Commission at the meeting on November 10, 2014. The revisions summarize information exchanges with Sunnyvale staff regarding the South Bay CCA Feasibility Study.

Prior to the November 10, 2014 Environmental Commission meeting, Chair Gary Hedden meet with Environmental Commission staff liaison J. Logan to review the CAP measures and identify areas where the Environmental Commission could offer support.

On November 25, 2014, Council received the Climate Action Plan mid-year report and held discussions that included the South Bay CCA Feasibility Study. Staff will report back to Council in 2015 with the first annual CAP Report. City staff is currently engaged on reporting on the CAP Measures assigned to their departments.

At the December 2014 Environmental Commission meeting, the accuracy of the vehicle miles travel (VMT) formula was discussed. Subsequent staff confirmed that the methodology for calculating VMT is currently being discussed by transportation professionals at both the county and state-wide level. At this time, the data derived from the VMT formula cannot be altered unless directed by regional and/or state transportation agencies. Meanwhile, it is recommended that measures in the CAP that use VMT as a data point continue to be implemented. Staff recommends that the development of the CAP Dashboard proceed as planned.

At the February 9, 2015 Environmental Commission meeting an update on the progress of the Sunnyvale CCA feasibility study will be discussed.

The target is to present the CAP annual report to the Environmental Commission on March 9, 2015 and then presented it to Council on March 24, 2015.

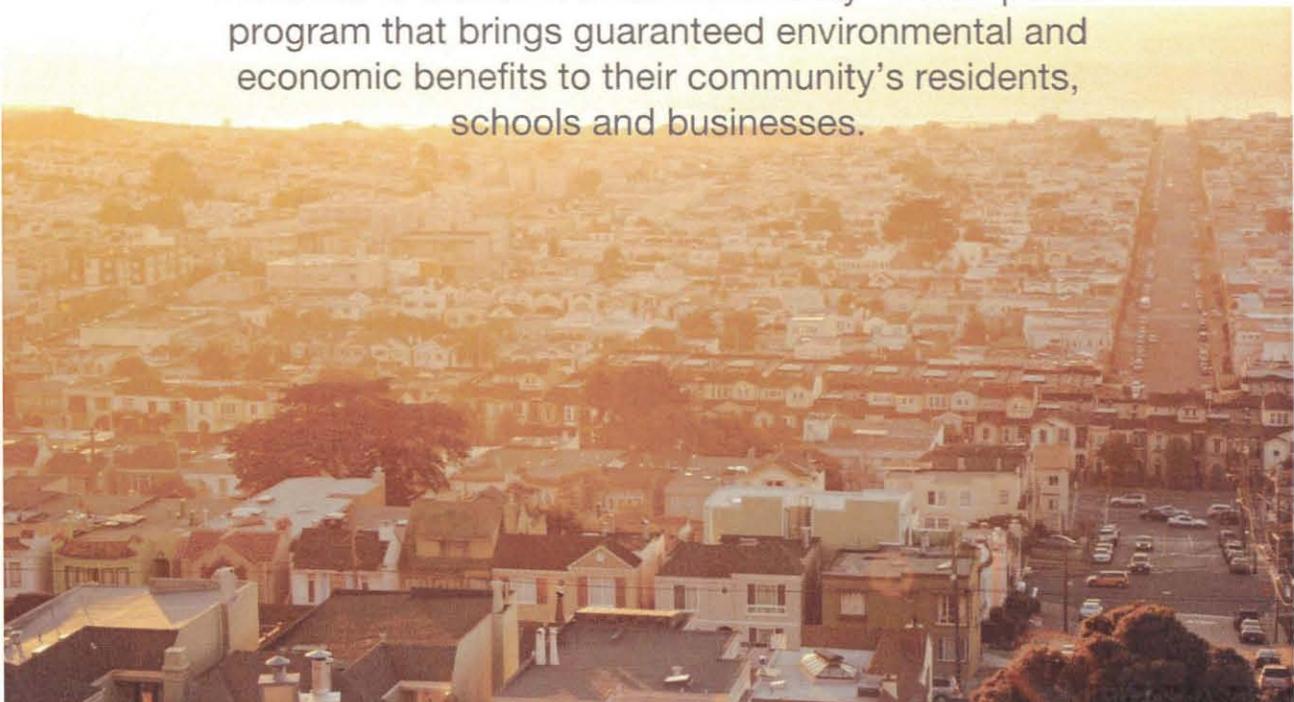


Community Choice Simplified



Our Mission

California Clean Power empowers communities across California to launch a local Community Choice power program that brings guaranteed environmental and economic benefits to their community's residents, schools and businesses.



About Us



- California Clean Power can establish a Community Choice program for you at no cost, no risk, and within 6-8 months.
- QuickStart is the state's first and only full-service solution for Community Choice in California.
- Our team of experts has vast experience in energy industry, government, finance, and has successfully launched Community Choice programs.



Community Choice Benefits All

Lower Rates

Lower Rates - Build Resilient Communities.

Enhance energy, climate, economic systems at the local level, get guaranteed rates

Green Power

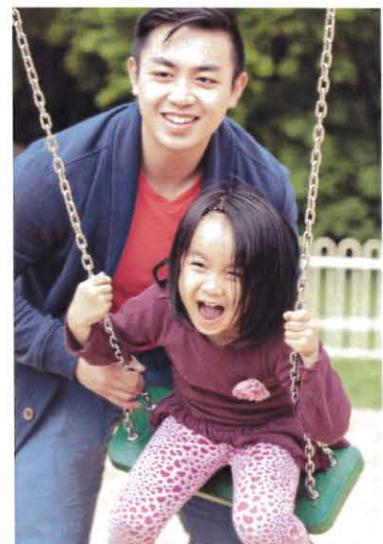
Renewable Power - Influence California Energy.

You can choose up to 100% renewable power, meet the 33% renewable standard 5 years ahead of schedule

Savings

Energy Savings - New Direct Revenue Source.

Residents, schools and businesses can collectively save millions on their annual energy bills



Challenges and Concerns

California Clean Power addresses the common challenges that cities face when trying to launch Community Choice on their own:



TIME - Cities have Competing Priorities

We manage the process from end-to-end and provide customer service to your community. Cities don't have to hire extra staff.



EXPERTISE - Legislative, Regulatory and Energy

Our team has deep experience in energy markets, legislative, regulatory and communications field.



FINANCING - Benefits are Guaranteed

Our revenue is Performance Based. Yours is Guaranteed. Cities don't have to spend anything from their general fund to launch or maintain Community Choice operations.



QuickStart - *The Next Evolution*

QuickStart is the state's first and **ONLY** no-cost, full-service solution

Quick

You can have a fully operational Community Choice program for your city in as little as 6-8 months.

Complete

We will procure power, run feasibility and technical analysis, handle regulatory & legal matters, provide customer service, drive public awareness and more.

Fixed

We guarantee a fixed, multi-year revenue stream, a mix of renewables, and rates.



QuickStart - *The Next Evolution*

QuickStart is the state's first and **ONLY** no-cost, full-service solution



QuickStart - *How are we different?*



Emphasize the "Community" in Community Choice.

Each city has local control over their guaranteed mix of benefits: lower rates, more renewable options, new direct source of revenue.



Efficient Execution of YOUR Community Choice.

Cities can have their own program fully operational in 6-8 months. Communities don't have to invest in hiring new staff & multiple consultants.



Eliminate the Points of Risk for Local Government.

General fund, procurement, bond, market risk are all taken on by California Clean Power. We are performance based, your benefits are guaranteed.



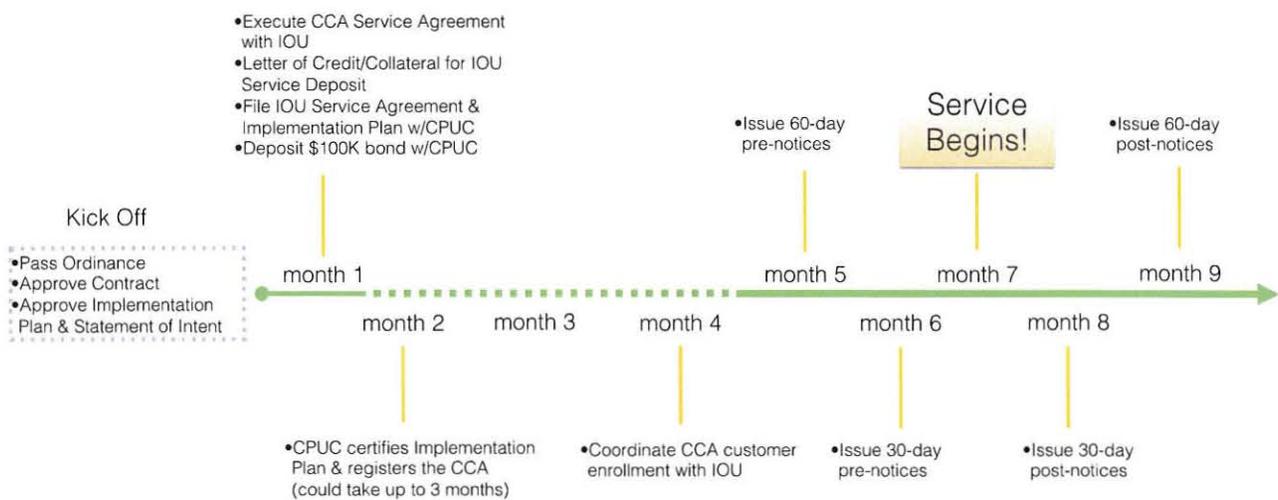
Los Altos Community Choice Options

Los Altos can receive an estimated \$17 million over 10 years



(calculations based on estimated data)

Execution Timeline



Partnering for Change

You can be a leader among California Cities:

- First 100% Renewable Community Choice program.
- First City to launch an independent Community Choice program.
- First City to use Community Choice as a platform for building community resilience.



We can help you achieve Council priorities:

- Los Altos Community and Recreation Center.
- Redevelopment and Economic Stimulus.
- Funding Community Engagement Activities.



Our Team

California Clean Power is supported by prominent industry experts

LEGAL, REGULATORY, POLICY



Doug
Bosco

Attorney &
Former Congressman,
Chair of Coastal
Conservancy



Kelly
Foley

General Counsel &
Director, Regulatory Affairs

CEO



PETER RUMBLE

POWER PROCUREMENT, ANALYSIS



Shehzad
Wadalawala

Associate Director,
Procurement



Nathanael
Miksis

Director,
Procurement
Market Analysis



Simon
Loos

Lead Expert,
Utility Analytics &
Demand Response

FINANCE, PROJECT DEVELOPMENT



Komron
Shahhosseini

Sonoma County
Planning
Commissioner &
Real Estate Developer



Bill
Gallaher

Chairman of the
Board, CCP &
Founder, First
Community Bank



Deborah
Meekins

CEO & President,
First Community
Bank

COMMUNITY RELATIONS, MARKETING



Jonathan
Kathrein

Attorney
Public Speaker
Environmental



Khyati
Shah

VP, Marketing &
Communications

Q&A - Discussion





COUNTY OF SAN MATEO
Inter-Departmental Correspondence
County Manager's Office



Date: February 6, 2015
Board Meeting Date: February 24, 2015
Special Notice / Hearing: None
Vote Required: Majority

To: Honorable Board of Supervisors

From: Jim Eggemeyer, Director, Office of Sustainability

Subject: Resolution authorizing an Appropriation Transfer Request for the purpose of completing the first phase of a three-phase project to form a Community Choice Aggregation program in San Mateo County

RECOMMENDATION:

Adopt a resolution authorizing an appropriation transfer request in the amount of \$300,000 from Measure A funds to the Office of Sustainability for the purpose of completing Phase I of a three-phased project to form a Community Choice Aggregation program in San Mateo County.

BACKGROUND:

On December 9, 2014 your Board authorized the Office of Sustainability (OOS) to explore the feasibility of Community Choice Aggregation (CCA) in San Mateo County. Your Board directed staff to conduct a focused outreach effort to educate and engage staff, City Managers and City Councils about CCA. In addition, your Board directed staff to prepare a workplan, timeline and budget for your consideration at a future meeting. Following your Board's decision, the OOS has worked with LEAN Energy U.S. – the county's CCA consultant – to conduct focused outreach, hold workshops, and develop a workplan, budget, and timeline for CCA development in the county.

DISCUSSION:

A. Outreach

In order to assess the potential for CCA in San Mateo County, the OOS conducted focused outreach to educate policy makers and stakeholders on CCA and gauge their interest in participating in the CCA exploration process. In addition to education and outreach, the goal of these efforts was to request a resolution of support or pro-forma letter from each city authorizing the county to obtain its electricity load data from Pacific Gas and Electric (PG&E). The load data information is required as part of a technical study (Phase I) to further assess the feasibility of CCA for the county.

OOS staff has worked with LEAN Energy U.S. to conduct a series of presentations to policy makers to provide an overview of CCA and how it's working throughout the state. These presentations were given on January 8, 2015 to the City/County Association of Governments, January 16, 2015 to the City Manager's Association meeting, and January 30, 2015 to the Council of Cities.

Additionally, on January 28, 2015, the county held two half-day workshops to provide a more detailed discussion of CCA for policy makers, stakeholders, and community organizations. Topics covered in these workshops included: introduction to CCA, case studies and results from the current CCA programs in Marin and Sonoma counties, the CCA formation process, potential benefits/risks of CCA, and next steps for exploring CCA in the county. See Attachment A for a copy of the workshop agenda. The morning workshop was held in South San Francisco and the other in Redwood City; the content of each workshop was identical. In total, the workshops had 71 attendees with representatives from 14 cities, 12 community organizations, and a number of other stakeholder groups. There were also several county residents in attendance. Evaluation forms from the workshop indicated that nearly all attendees felt that the level of information and overall workshop content were "excellent" and that the workshops were very helpful in better understanding the nuts and bolts of CCA and how it works in California. Workshop materials and additional resources on CCA have been posted on the OOS website.

OOS staff recorded questions and comments from attendees at the CCA presentations and workshops. These questions have been compiled into a CCA Frequently Asked Questions (FAQ) document, drafted by OOS and LEAN Energy U.S. staff. See Attachment B for a copy of the CCA FAQ. Many participants were interested in learning more about the reasons residents in CCAs choose to opt-out of the program, the feed-in tariff for residential, commercial, and municipal solar, and the cost and timeline for implementing a CCA.

In addition to our outreach efforts, OOS staff is developing a comprehensive contact list for CCA communication and future CCA efforts. This list, which currently has over a 100 contacts, includes elected officials and city staff as well as representatives from community groups, non-profit organizations, and other stakeholder groups. This list will continue to grow as the project moves forward.

B. Workplan

The county's CCA workplan, based on successful program launches in Marin, Sonoma, and soon the City of Lancaster, is divided into three planning and development phases: 1) Pre-Planning and Due Diligence, 2) CCA Program and JPA Development, and 3) Preparing for Launch. Each phase has a distinct timeline and set of activities that, for the purposes of San Mateo County's investigation and possible implementation, is organized around the following task categories.

Internal Planning and Operations: This task area encompasses all the internal planning and organizational development associated with formation of a joint powers agency and the nuts and bolts of CCA program design and implementation. This task will be led by a core organizing team of county staff, consultants and necessary legal support which will oversee overall project management and the daily tasks associated with implementing a multi-faceted initiative of this scope.

External Affairs/Community Engagement: This task area includes various outreach and communications functions such as community stakeholder mapping/database development, educational briefings and workshops, public surveys and polling, a CCA website, press relations, social media, local advertising, and in phase III customer call center and enrollment. Because CCA is by statute an “opt-out” program whereby customers are automatically enrolled, the marketing and community engagement aspects of CCA implementation are critically important throughout all phases of the project, moving from a focus on local governments, business, and civic groups in Phase I to a broader county-wide public education campaign in Phase II and customer enrollment in Phase III.

Technical Support Services: This task area includes all the activities and documents that require a technical and regulatory level of expertise including load data analysis, forecasting, rate design, energy services planning/procurement, resource adequacy, registrations and reporting, etc. While not required, both Marin and Sonoma hired their technical consultants early in Phase I to conduct the CCA Technical Study and, upon deciding to move forward, retained the same firm through project launch to avoid project disruption and ensure analytical consistency. This category also includes any necessary data management services engaged during Phase III.

Financial Considerations/Partners: To date, Marin and Sonoma CCA programs have approached their start-up financing differently, using a combination of county funds, private funding, and grants to support their CCA implementation. Because all of the start-up expenses associated with CCA implementation can be repaid through early rate-payer revenue, the easiest and recommended approach is a single source of funding provided by the county and tracked through a chart of accounts established early in Phase I. This was the approach taken by both the Sonoma County and the City of Lancaster. Although there are other start-up options emerging in the private sector, a county sponsored “pay as you go” approach offers maximum transparency and cost effectiveness assuming the county does not charge interest on its start-up funding. Once the JPA is formed, it will enter into a local banking relationship to provide working capital and credit for the initial power supply contract. Typically, the bank relationship and specific terms and conditions are finalized in Phase II/III and the JPA can separate from the county prior to launch, with start-up repayments beginning soon after first revenues.

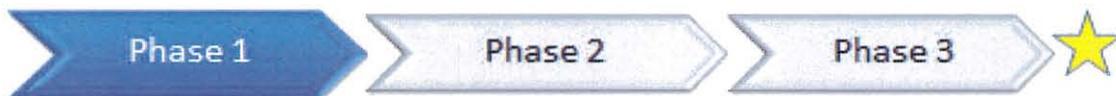
C. Timeline

Now that CCA in California is supported by “proof of concept,” less utility opposition, and a higher degree of process standardization, a CCA program can be formed much

faster than the five years it took in Marin or the three years it took in Sonoma. In terms of basic mechanics and statutory requirements, a CCA program could technically be implemented in a year, perhaps less. But such accelerated timing does not account for other realities and influencing factors such as local politics, coordinating with multiple cities, necessary coalition building and a robust public outreach program. Given that early indications from San Mateo County's local governments are positive and local advocacy groups are already beginning to organize, county staff believes that a CCA program in San Mateo County could realistically be launched within 20 months, targeting initial roll-out sometime in the fall or early winter of 2016. The following chart provides an overview of the planning and development phases and timing of each.

Overview of CCA Formation Timeline

*With political alignment and local leadership,
San Mateo County could launch a CCA by Q3 2016.*



January -August 2015	Sept. 2015 - April 2016	May – September 2016
Pre-Planning & Due Diligence	Community Outreach; JPA/CCA Planning & Development	Preparing for Launch
Initial Outreach/Education; CCA Technical Study; Steering Committee	JPA Formation; Community Education/Marketing; Local Ordinances; Implementation Plan; RFP for Energy Services Provider; Working Capital	Finalize Financing; Execute Energy Svcs/Vendor Contracts; Utility Service Agreement; Call Center; Customer Enrollment

D. Budget

As noted above, several of the key formation documents and steps in the CCA process are achieving a level of standardization with two CCA programs operational and one nearing launch. Although some additional budget factoring is required for a county, the size of San Mateo County (especially with respect to community engagement and public outreach), the basic start-up requirements carry fixed costs regardless of program size. The most recent and analogous example of a successful CCA launch was in Sonoma County which spent \$1.7 M to launch its program. The City of Lancaster will likely come in much lower (~\$1.2 M) but it should be noted that Lancaster has a population of 120,000 and is a single jurisdiction, thus reducing its public outreach costs and mitigating the need for an inter-jurisdictional JPA with all the requisite coordination. The

County of Alameda recently approved its first allocation of \$1.3 M within a total start-up authorization of \$3.2M over 2.5 years.

County Staff, with the assistance of LEAN Energy U.S., and budget feedback from Marin, Sonoma and Lancaster, prepared a pro-forma budget of \$1.5 M which should comfortably cover all development phases with some cushion for unforeseen contingencies that can arise in a project of this scope and complexity. This budget projection assumes the current level of OOS staff support and the use of County Counsel for much of the legal work associated with the formation of the JPA. Attachment C provides more detail, but the basic cost breakdown by function and phase is as follows:

	Phase I	Phase II	Phase III	TOTALS:
Internal Planning / CCA / JPA Development	\$60,000	\$220,000	\$100,000	\$370,000
External Affairs / Community Engagement	\$75,000	\$350,000	\$210,000	\$635,000
Technical / Energy Services	\$150,000- \$160,000	\$220,000	\$80,000	\$470,000
Financing Partner(s)	\$5,000	\$10,000	\$10,000	\$25,000
TOTALS	\$300,000	\$800,000	\$400,000	\$1.5M¹

E. Next Steps

The next step for CCA in San Mateo County is to conduct a technical study, which is a significant aspect of Phase I due diligence. While this study is not required for the formation of a CCA program, it is an important step in assessing whether a CCA would be technically and financially feasible for the county. The goal of the technical study is to answer the following questions about a potential CCA in San Mateo County:

- 1) Can the program be cost competitive while delivering a greater percentage of renewable energy?
- 2) Can it achieve greater greenhouse gas reductions than PG&E?
- 3) What is the potential customer base in terms of number of accounts and type (residential, commercial, industrial, et al)?
- 4) What are the revenue and local economic implications?
- 5) What are the potential risks and other benefits of forming a CCA?

¹ Includes ~\$200,000 in contingency funding

The technical study would answer these questions, in part, by using residential, commercial, and municipal electricity load data from each city jurisdiction interested in participating in the study. In order to access this data, the county must have a letter or resolution of support from the interested cities and towns. It is our goal to commission a comprehensive Countywide study, but that is not required if some cities/towns choose not to participate.

As of today, more than half of the cities in the county have passed a resolution of support or sent in a letter authorizing the county to access their electricity load data and expressing their willingness to be part of a technical CCA study. In addition, five cities have CCA as an agenda item on an upcoming council meeting in the coming few weeks. At this time, we have not received any declinations or indication of opposition to the CCA concept or study.

The study would be prepared by a technical consultant, under contract with the OOS, who that expertise in developing these types of reports and analyzing relevant load data, along with historical utility data and future rate forecasting. This consultant would be different than LEAN Energy U.S., who works with the county on CCA outreach, program development, and project management. The OOS would oversee the hiring process for the technical consultant and coordinate with them to provide all the necessary data for the study.

If a technical study is completed, the final report would be available to all study participants and used as a guiding document to determine whether to move forward with forming a CCA in San Mateo County. Based on the timeline above, OOS would prepare a staff memo and recommendation for Phase II (and include the technical feasibility study prepared by the consultant), for your Board's consideration at a public hearing in late summer 2015 (August 2015).

County Counsel has reviewed and approved the resolution as to form.

SHARED VISION 2025:

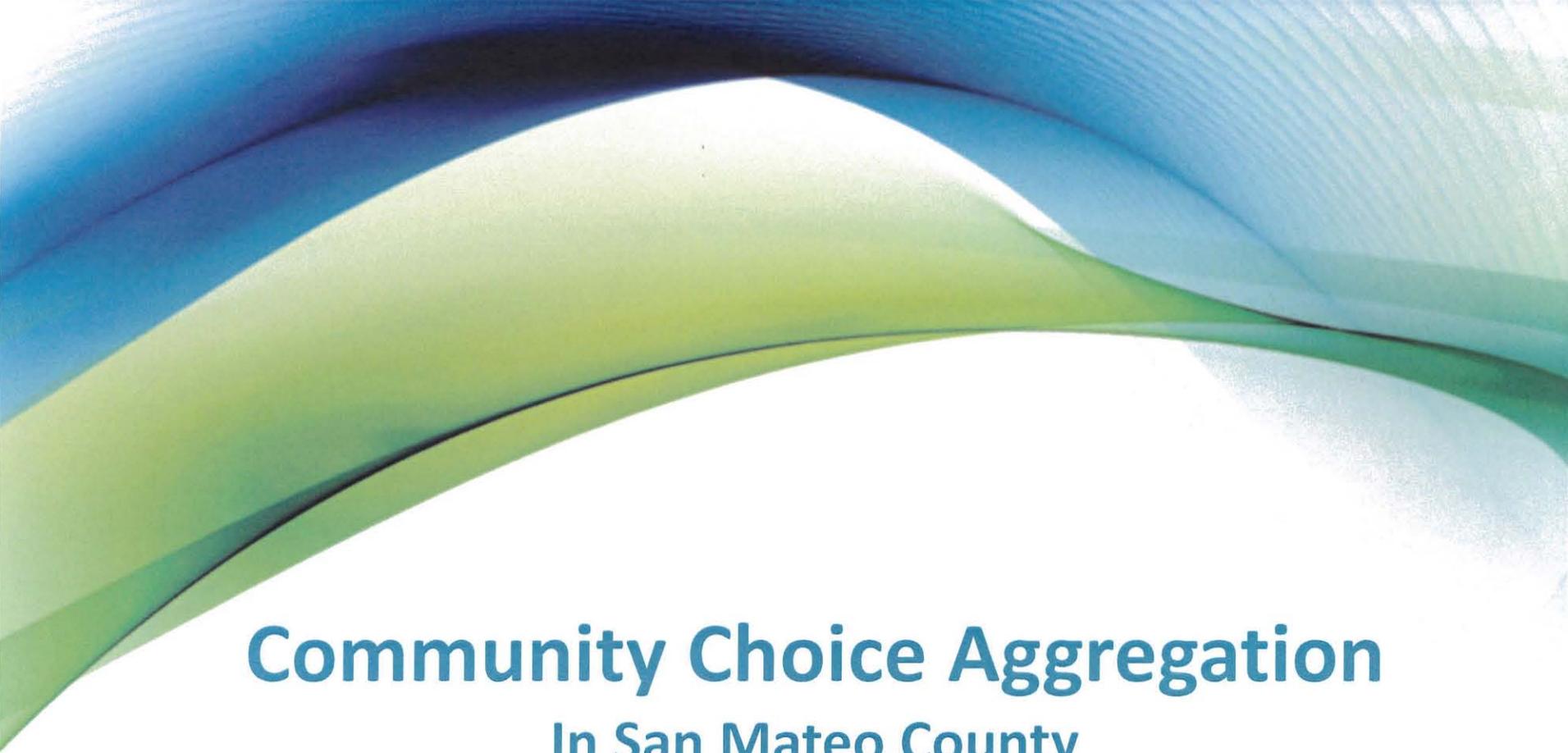
Studying the feasibility of a CCA contributes to the Share Vision 2025 outcome of a Collaborative Community by fostering relationships with all cities in the county, facilitating a regional solution to local energy needs, and expanding the available power procurement options for county residents. It also contributes to the outcome of an Environmental Conscious Community by exploring options to reduce county-wide carbon emissions.

FISCAL IMPACT:

Approval of this Appropriation Transfer Request will result in the transfer of funds in the amount of \$300,000.00 to the Office of Sustainability. This Appropriation Transfer will provide funding to implement Phase I (Pre-Planning and Due Diligence) as outlined above. Funding for this appropriation is from Measure A funds. Should the project continue beyond Phase I, future requests for funding Phases II and III are estimated to be \$800,000 and \$400,000 respectively.

Attachments:

- A. Copy of CCA Information Workshop and Agenda 1/28/15
- B. CCA FAQ Sheet
- C. Proposed Workplan, Budget and Phasing



Community Choice Aggregation In San Mateo County

San Mateo County Board of Supervisors
February 24, 2015



Presentation Overview



- Progress and Activities Since Last Meeting
- Overview of CCA Technical Study, Budget and Timeline
- Next Steps if Approved

January-February CCA Activities



- ✓ Focused outreach to all 20 cities
 - 4 local gov't organization presentations
 - 2 half day workshops
 - 3 City Council presentations
- ✓ Stakeholder database development & notifications
- ✓ Informational website in development
- ✓ CCA workplan, timeline and budget development
- ✓ Responding to community and press inquiries

CCA Interest in San Mateo County



There is significant interest across the county in furthering CCA investigation and conducting a technical feasibility study

10 cities have passed resolutions

5 cities have submitted letters

5 cities have agendized or provided verbal confirmation



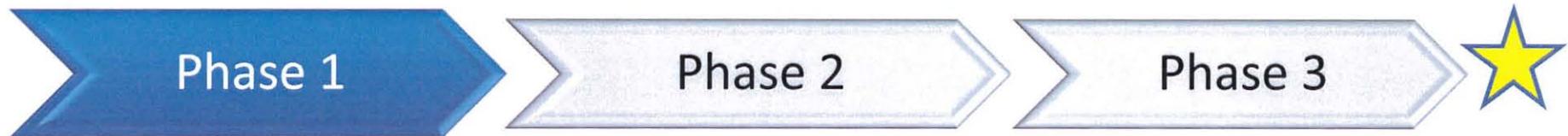
What will the Technical Study tell us?

- Overall size of the program (megawatt hours and peak demand levels)
- Forecasted demand into the future
- Resource availability and other compliance issues
- Ability to be rate competitive given short and medium term market conditions
- Development of different power supply scenarios and their impact on GHGs, jobs created, etc.
- Robust risk analysis

Overview of CCA Formation Timeline



*With political alignment and local leadership,
San Mateo County could launch a CCA by Q3 2016.*



January -August 2015	Sept. 2015 - April 2016	May – September 2016
Pre-Planning & Due Diligence	Community Outreach; JPA/CCA Planning & Development	Preparing for Launch
Initial Outreach/Education; CCA Technical Study; Steering Committee	JPA Formation; Community Education/Marketing; Local Ordinances; Implementation Plan; RFP for Energy Services Provider; Working Capital	Finalize Financing; Execute Energy Svcs/Vendor Contracts; Utility Service Agreement; Call Center; Customer Enrollment

Proposed CCA Formation Budget



All start-up costs are recoverable through early CCA revenues

	Phase I	Phase II	Phase III	TOTALS:
Internal Planning; CCA JPA Development	\$60,000	\$220,000	\$100,000	\$370,000
External Affairs/ Community Engagement	\$75,000	\$350,000	\$210,000	\$635,000
Technical & Energy Services	\$150,000- \$160,000	\$220,000	\$80,000	\$470,000
Financing Partner(s)	\$5,000	\$10,000	\$10,000	\$25,000
TOTALS	\$300,000	\$800,000	\$400,000	\$1.5M*

* Includes ~\$200,000 in contingency funding

Proposed Next Steps – Phase I



- March Complete Load Data Request /Submit to PG&E
- April Establish Countywide Steering Committee
- March-Aug. Issue Tech Study RFP/Conduct Study
- August Study Review; Go/No-Go vote on Phase II
- Ongoing Expanded Outreach & Stakeholder Meetings



Recommendation



- Adopt the resolution authorizing the ATR for \$300,000 to the Office of Sustainability for Phase I of the Community Choice Aggregation project



Questions??

Appendix Slides:
Economic Overview
Marin and Sonoma Rate
Comparisons



Illustrative Comparisons...



Some Quick stats from Marin Clean Energy and Sonoma Clean Power:

CCA customers in Marin and Sonoma are saving money on the electrical generation portion of their bills – this includes residential, commercial and municipal accounts

Nearly \$1B has been committed for in state power contracts; 75% of that is supporting the development of clean power resources .

Hundreds of California-based and local jobs have been created through power contracts and new power programs in Marin and Sonoma; many of them union supported

Sonoma Clean Power projects a 34% reduction in GHG emissions in their 2014 reporting period; Marin Clean Energy reports a reduction of 60,000 metric tons of GHGs since 2010.

Both programs have product options ranging from a low of 33% or 50% renewable content to a high of 100% locally sourced renewable content.



Potential Economic Value



CCA's estimated gross annual value in San Mateo County = \$356M*

- Plus leveraged funding and avoided costs of compliance

Leveraged Funding

- Energy Efficiency \$\$, CA Energy Upgrade, Bonding Authority

Renewable Power: 2,000+ MW technical potential in the County based on expert surveys

Marin (since 2010)

- 195 new MW in pipeline; 20 MW in Marin and Richmond
- 10.5 MW solar project @ Richmond's Chevron Refinery

Sonoma (since 2014)

- 70 MW to date; 20 MW solar with Sonoma Co Water Agency

* San Mateo County 2013 electrical consumption = 4.5M kwh x .079/kwh which is MCE's current E-1 residential rate. Annual revenues likely higher @ 2015 rates.



Cities & Citizens Are Saving Money



Marin and Sonoma's electric rates are lower than PG&E. Thus...

- MCE's residential customers saved nearly \$6M in 2014; greater savings expected in 2015
- Phase I customers (commercial) in Sonoma saved \$6M in the first seven months of service.
- Sonoma's current rates are 5-8% lower than PG&E's rates; Greater savings expected in 2015.
- The City of San Rafael (municipal operations) saved \$77,000 in 2013/2014
- The City of Richmond (municipal operations) saved \$107,000 in 2014
- West Contra Costa Unified School District is projected to save \$66,000 per year from its operations in Richmond and San Pablo.



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

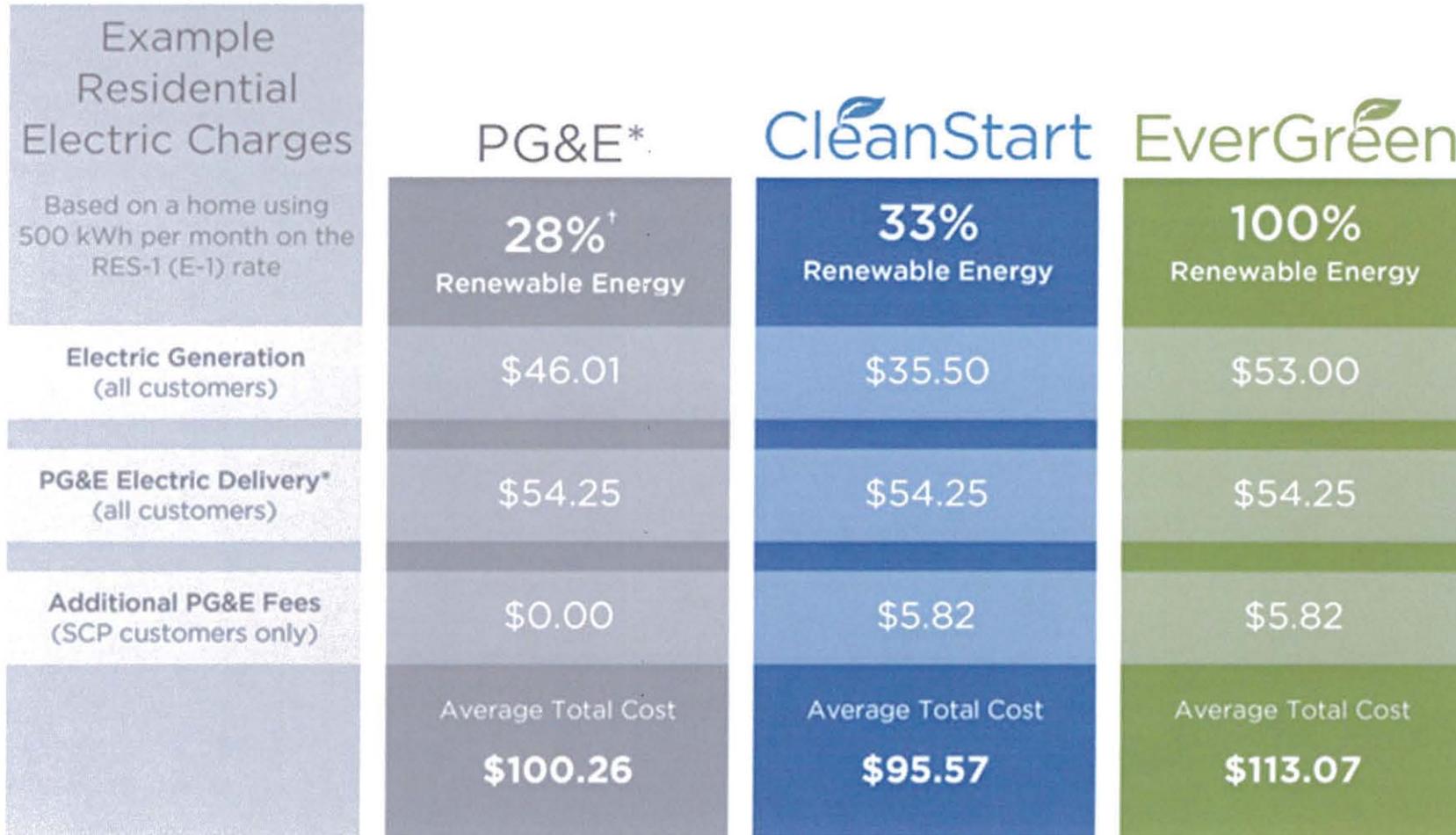
2015 MCE Commercial Cost Comparison



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

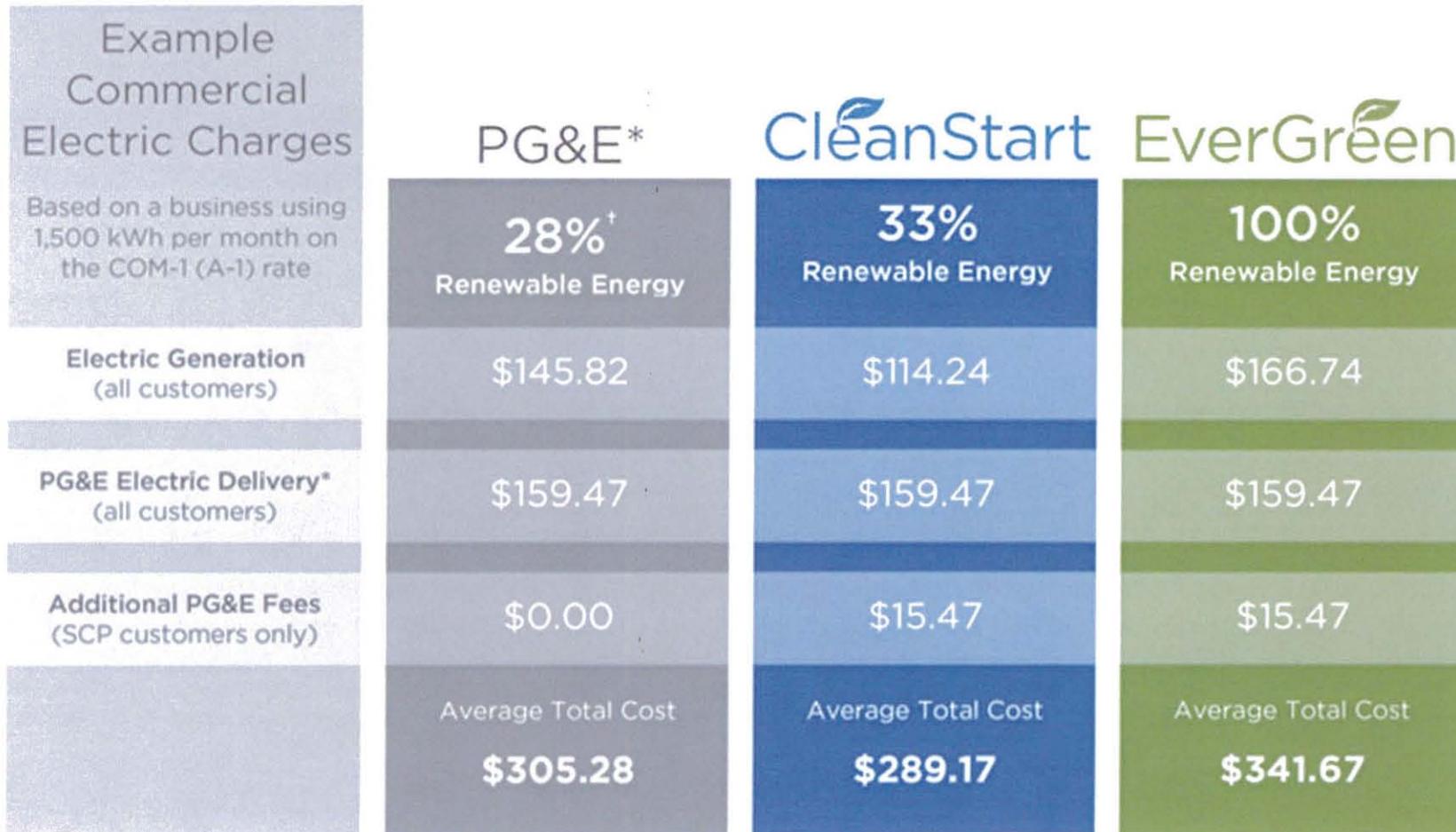
SCP Residential Cost Comparison



*PG&E fees are calculated by Sonoma Clean Power using rate data provided by PG&E effective on August 1, 2014.

†Based on 2014 forecasted data, as reported by PG&E. The Power Content comparison, linked at left, contains 2013 actual data for PG&E.

SCP Commercial Cost Comparison



*PG&E fees are calculated by Sonoma Clean Power using rate data provided by PG&E effective on August 1, 2014.

†Based on 2014 forecasted data, as reported by PG&E. The Power Content comparison, linked at left, contains 2013 actual data for PG&E.

**San Mateo County - Community Choice Aggregation (CCA)
Formation Timeline, Key Tasks, Estimated Budget**

San Mateo CCA Timeline	Est. Budget	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016
Phase I/Task 1: Internal Planning & Devt	\$60,000								
Staff & Consultant planning meetings									
Prepare CCA development plan: timeline, workplan, budget									
Staff briefings, reports, BOS presentations as needed									
As appropriate, queue up Phase II action items									
Program management for all tasks									
Phase I/Task 2: External Affairs	\$75,000								
Stakeholder mapping/stakeholder database devt.									
Hold informational workshops & local govt briefings									
Begin key stakeholder meetings (e.g. business and community groups)									
Prepare informational website									
Develop steering committee/begin regular meetings									
Local press meetings									
Consider public poll /survey									
Phase I/Task 3: Technical Support	160,000								
Local government outreach; load data authorization									
Prepare/submit load data request for PG&E									
Prepare and issue Tech Study RFP									
Hire technical consultants									
Conduct study, present to County Board for approval /Go No-Go to Ph II									
Phase I/Task 4: Financing	\$5,000								
Pursue CCA start-up financing if needed									
PHASE I TOTAL:	\$300,000								

Prepared for San Mateo County Board of Supervisors. February 2015

**San Mateo County - Community Choice Aggregation (CCA)
Formation Timeline, Key Tasks, Estimated Budget**

	Est. Budget	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016
Phase II/Task 1: Internal Planning & Devt.	\$220,000								
All tasks associated w/ JPA Formation: legal requirements, organizing docs/bylaws, governance issues, budget, staffing plan, etc									
Draft CCA/JPA ordinance; City council follow up									
Phase II/Task 2: External Affairs	\$350,000								
Steering Committee meetings (through formation of JPA)									
Select firm for marketing/communications – branding, messaging, website build out, social and print media, collateral design, customer enrollment/opt-out notification.									
Continue local govt and community outreach – workshops, public meetings, local events, etc.									
Work with community advocates– social media, endorsements, et al									
Media relations – editorial boards, op-eds, etc.									
Phase II/Task 3: Technical Support	\$220,000								
Determine initial portfolio composition, service area, customer base									
Draft CCA Implementation Plan (90 day CPUC review)									
Identify/select data management services provider and complete related contract negotiations.									
Prepare solicitation document for energy supply and scheduling coordinator services									
Begin work on utility service agreement									
Negotiate terms, indicative pricing, and select energy services provider									
Phase II/Task 4: Financing	\$10,000								

**San Mateo County - Community Choice Aggregation (CCA)
Formation Timeline, Key Tasks, Estimated Budget**

Begin bank/funder meetings for JPA working capital									
PHASE II TOTAL	\$800,000								
	Est. Budget	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016
Phase III/Task 1: Internal Planning & Devt.	\$100,000								
Transition JPA to independent Agency: start Board meetings, hire initial staff, office space, set rates, launch									
Confirm data service/customer management and other JPA vendor contracts									
Post CCA bond; establish reserve accounts									
Gain party status/register at CPUC; legislative participation									
Phase III/Task 2: External Affairs	\$210,000								
Continue marketing, advertising, media and community outreach efforts									
Establish Call Center									
Opt-Out/Customer Enrollment Process									
Phase III/Task 3: Technical Support	\$80,000								
Execute contract(s) with third party energy supplier(s); final pricing									
Pre-start up registrations/reporting (resource adequacy, RPS, WREGIS account setup, CRR holder registration, etc)									
Phase III/Task 4: Financing	\$10,000								
Finalize terms of initial working cap/bridge loan; secure guarantees as needed									
Draw down initial working capital									
Begin County repayments									
PHASE III TOTAL	\$400,000								

**San Mateo County - Community Choice Aggregation (CCA)
Formation Timeline, Key Tasks, Estimated Budget**

TOTAL ESTIMATED FORMATION COSTS	\$1,500,000								
<i>NOTE: Local project development, integrated resource planning, development of ancillary energy programs, etc. are not included in this timeline or budget</i>									



ADMINISTRATIVE REPORT

TO: CITY COUNCIL

FROM: LARRY A. PATTERSON, CITY MANAGER

PREPARED BY: CITY MANAGER'S OFFICE

MEETING DATE: February 17, 2015

SUBJECT: Community Choice Aggregation Feasibility Analysis

RECOMMENDATION

Adopt a Resolution of support to participate in a feasibility study for the formation of a Community Choice Aggregation program for San Mateo County.

BACKGROUND

The City of San Mateo is in the process of developing a Climate Action Plan (CAP), a comprehensive strategy to reduce community-wide greenhouse gas (GHG) emissions in San Mateo. One of the priority measures in the draft CAP is the participation in a Community Choice Aggregation (CCA) program. CCAs are programs that allow local communities to procure their own electricity with the goal of increasing the percentage from renewable sources. Joining a CCA program would achieve a GHG reduction of 23,720 MTCO₂e which represents over 70% of the remaining emission reductions required to meet the City's reduction target of reducing emissions 15% over 2005 levels by the year 2020.

The San Mateo County Board of Supervisors supported the exploration of a Countywide CCA at their December 9, 2014 meeting. The San Mateo County Office of Sustainability staff are taking the lead role in initiating a feasibility study for the adoption of a CCA program for all of San Mateo County. Staff from the Office of Sustainability plan to bring forward a request to fund the feasibility analysis to the County Board of Supervisors at their February 20, 2015 meeting. County staff requested that interested cities show their support for participating in the study by passing a resolution of support and authorizing City staff to obtain the necessary data from PG&E. The County is not requesting any financial contribution from interested cities for this initial analysis.

CCA Authorization History

In 2002, the California State Assembly enacted AB 117 permitting the creation of CCAs in California. Under AB 117 and codified as Public Utilities Code §366.2, a city, county or joint

powers authority comprised of two or more cities and/or counties may implement a CCA. Through a CCA, municipalities and certain special districts may aggregate (or pool) the electricity loads of their residents, businesses and municipal facilities in order to purchase and develop power on their behalf. This gives local communities a much greater input in the type of energy purchased, such as renewable energy from solar and wind. In 2011, AB 117 was amended by SB 790, which established a utility code of conduct to prohibit the marketing by investor-owned utilities (e.g. PG&E) against CCAs as well as other administrative amendments.

Formed by local ordinance and certified by the California Public Utilities Commission, a CCA has the option of supplying power for its local customers through wholesale power contracts, spot market purchases, and/or the ownership and operation of generation plants. The utility (which is PG&E in San Mateo County) retains responsibility for all other aspects of power transmission and delivery, account metering, grid maintenance and consolidated customer billing. Once operational, the CCA becomes a community's default electric procurement provider and all customer accounts may be enrolled with the option of "opting out" if they prefer the power mix offered by the incumbent utility. In either case, customers continue to receive their gas services, power delivery, and billing from the utility.

CCAs in other states, as well as those in California, are achieving energy independence, price stability, and consumer choice over their power supply. CCAs in California also offer increased renewable energy supply. In addition to power procurement, CCAs may choose to optimize their program by offering other energy-related services in their community. Current examples include: community-based solar projects, energy efficiency retrofits, demand response technology, electric vehicle charging stations, energy-in-schools programs, and local job training programs in the energy sector.

Currently, there are two CCAs operational in Northern California: Marin Clean Energy (launched in 2010) and Sonoma Clean Power (launched in May 2014). The City of Lancaster is poised to begin service in early 2015 in Southern California Edison's territory. There are several other jurisdictions throughout the State investigating CCAs for their economic and environmental potential. In the Bay Area, Alameda County has allocated more than \$1 million to explore a CCA. Unincorporated Napa County has joined Marin's program, and interest is growing in Contra Costa County as well. Several communities in Santa Clara County are also considering CCA formation.

The CCAs in Marin and Sonoma are yielding proof of concept results that are being increasingly noticed by other California municipalities interested in offering local energy choice while achieving local policy objectives. To date, both Marin Clean Energy and Sonoma Clean Power are:

- Cash flow positive with reserves.
- Offering electrical generation rates below those of PG&E.
- Meeting or exceeding the State's Renewable Portfolio Standard.
- Achieving better greenhouse gas reductions than PG&E.
- Creating new local and union jobs.
- Offering local energy programs tailored for their community.

Establishing a CCA is not without risk although many of the early concerns, including joint and several liability issues and intense utility opposition, have been mitigated. The remaining programmatic risks associated with forming a CCA generally fall into four categories:

- 1) Rate risk – the risk that the CCA's rates are higher than those offered by the incumbent utility.
- 2) Opt-out risk – the risk that customer opt-outs are too high and the program is thus economically infeasible.
- 3) Operational risk – the risks associated with commodity, credit, vendor default, poor management and oversight.
- 4) Legislative/regulatory risk – the risks associated with unfavorable state legislation or regulation that could threaten or harm the program.

It is worth noting that many municipal utilities in California, including several in the Bay Area, have operated for decades and successfully managed commodity, credit and operational risks. Additionally, in the event of program failure, CCA customers are returned to utility service without interruption or financial penalty to the customer or the member jurisdictions of the CCA/joint powers authority.

CCA Formation Process

There are several tasks associated with the formation of a CCA, each with associated costs, as follows:

- 1) Technical Feasibility Study – A study that analyzes local load data, historic and current pricing, and other factors to determine whether the CCA can meet economic, environmental and consumer benefit goals.
- 2) Public Outreach & Education – A robust public education and information program is imperative during formation and at the time of customer enrollment.
- 3) Forming a Joint Powers Authority – Includes all the administrative and legal costs associated with forming a new JPA such as developing a JPA ordinance and operating policies, hiring staff, governance, Board recruitment, etc.
- 4) Preparation of Required Documents – Documents may include the CCA Implementation Plan, the Utility Service Agreement, and various vendor contracts including power supply. These documents include information about customer products (e.g. Light Green or Dark Green) and rate design, power portfolio, the relationship between the utility and the CCA, etc.
- 5) Commodity and Credit – Although a CCA is ultimately self-sustaining through ratepayer revenues, a CCA will require some level of financial backing and credit through the initial start-up phase and first power supply contract.
- 6) Program Roll Out – Tasks associated with program roll-out include hiring staff, commencing JPA Board meetings, selecting a power supplier and other key vendors, customer phase-in and rate setting, customer enrollment and marketing.

If San Mateo County and interested cities decide to move forward with forming a CCA, the estimated start-up costs (not including the cost of the initial power contract) will range from a low of \$2 million to a high of \$3.5 million depending on program size. County staff estimates that a CCA serving San Mateo County could be formed in as little as 24 months. It is important to note that the costs of CCA formation can be recovered through early program revenues. Thus, if a CCA moves forward and successfully launches, the JPA will be self-sustaining (not government subsidized) and any funds allocated for start-up can be repaid within the first three

years of operation.

County staff is proposing moving forward with the Technical Feasibility Study. As part of the required analysis, the County will be identifying which cities are interested in participating with the initial formation and analyzing the potential demand from those participants. In order to complete this analysis, the City of San Mateo will need to provide the County with access to the City's energy usage/load data from PG&E. The attached resolution of support authorizes the City to share this data with the County.

BUDGET IMPACT

The County of San Mateo is proposing to fund the initial feasibility analysis for the formation of a CCA program. Financial contribution from the City may be required at a later date if the formation process moves forward. It is anticipated that any initial financial investment would be recouped within the first few years if operation.

ENVIRONMENTAL DETERMINATION

Studying the feasibility of a CCA program is not a "project" under CEQA because the analysis does not involve any commitment to a specific project which may result in a potentially significant physical impact on the environment, as contemplated by title 14, California Code of Regulations, Section 15378(b)(4).

NOTICE PROVIDED

All meeting noticing requirements were met.

ATTACHMENTS

Attachment 1 – Proposed Resolution

STAFF CONTACT

Kathy Kleinbaum, Senior Management Analyst [Click here to enter kkleinbaum@cityofsanmateo.org](#)
650-522-7153



PUBLIC WORKS DEPARTMENT

Council Meeting Date: February 24, 2015

Staff Report #: 15-030

CONSENT CALENDAR: **Adopt a Resolution Supporting San Mateo County
Community Choice Aggregation**

RECOMMENDATION

Staff recommends that Council adopt a resolution (Attachment A) supporting progress toward creation of a San Mateo County-wide Community Choice Aggregation (CCA) for the procurement of environmentally preferable electrical power.

POLICY ISSUES

The resolution of support is consistent with the City of Menlo Park's Climate Action Plan.

BACKGROUND

CCA allows cities and counties to aggregate the buying power of individual customers within a defined jurisdiction in order to secure alternative energy supply contracts on a community-wide basis. It also allows consumers to opt-out if they do not wish to participate. CCAs are operational in Marin and Sonoma counties, and several others are under consideration throughout the State of California, including an effort in San Mateo County.

In 2009, Menlo Park City Council adopted a Climate Action Plan (CAP) and in 2011, City Council adopted a greenhouse gas (GHG) reduction target of 27% below 2005 levels by 2020. By 2020, it is estimated statewide initiatives will reduce Menlo Park's GHG emissions by 10%, leaving the remaining 17% to be provided by Menlo Park initiatives.

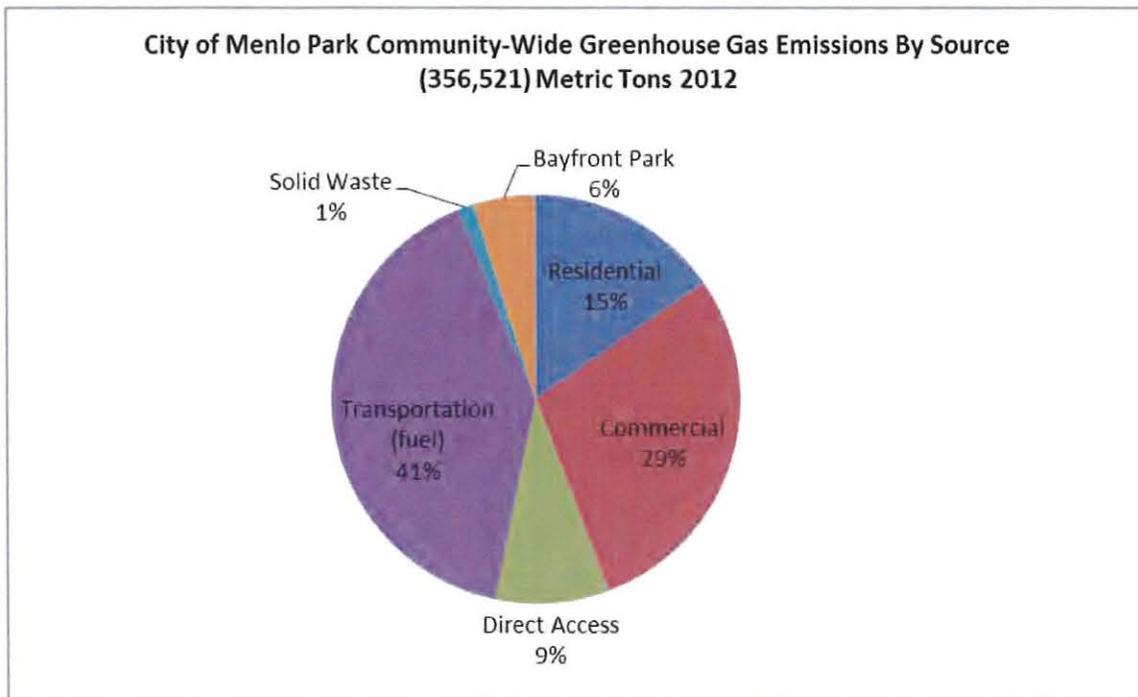
In June 2014, the City Council approved the Five-Year Climate Action Plan strategy, which included consideration of a feasibility study for a CCA. The County of San Mateo is considering developing a CCA that could procure electricity from renewable energy sources and deliver it to residents and businesses through the existing PG&E electrical power transmission grid. Staff and the Environmental Quality Commission have been following the County's efforts to begin this process. The County of San Mateo is currently initiating a feasibility study of a County-wide CCA and is requesting a resolution of support from interested local agencies in this effort.

ANALYSIS

What is a CCA?

CCA's promise of significantly reducing GHG emissions without disrupting resident and business behavior is very attractive to many cities. A CCA supplying 100% renewable energy could allow Menlo Park to reduce GHG emissions approximately 15%, whereas a CCA with 50% renewables could cut GHG emissions approximately 7%.

Below is the latest GHG data for Menlo Park.



As shown in the chart above, 15% of energy usage is residential and 29% is commercial. Thus, approximately 44% of Menlo Park's GHG emissions are attributed to energy use in buildings, which is made up primarily of natural gas and electricity.

CCA can address the electricity portion of energy usage. PG&E estimates 36% of Menlo Park's combined energy usage is electricity. Specifically, 76% of commercial energy usage is electricity and 24% of Menlo Park's residential energy use is electricity.

Lean Energy is the County's consultant on CCA. Attachment B contains selected slides from Lean Energy's presentation on CCA. Included on the first page is an info-graphic that further explains how CCA would fit into the electrical power delivery system.

Benefits of a CCA

From the customer's perspective, a CCA would change very little. Customers would continue to receive power through the existing PG&E grid and customers would continue to pay for power through their PG&E bill. A case study by Lean Energy provided a comparison of costs of the different options offered by the Marin County CCA (Attachment B). The default option in Marin offers a small savings over PG&E prices without the CCA and provides 50% renewable electricity sources, as compared with approximately 20% from PG&E. The Deep Green and 100% Local Solar options provide 100% renewable electricity at slightly higher than standard PG&E prices.

Customers have the option to opt-out of the CCA and continue to have power sourced by PG&E. If the CCA were to fail, customers would immediately revert to PG&E electricity sources without service disruptions.

Next Steps

An initial step in the CCA process requires a feasibility study to determine if forming a County CCA would be cost effective and achieve the desired renewable energy portfolio.

The County has committed funds to conducting the feasibility study, and has not asked cities to contribute to the funding. If the study concludes the CCA to be feasible, it is likely the CCA would borrow start-up capital until it begins gathering revenue from customers who buy its power, at which point it would be self-sustaining. If any profits are generated, they could be used to fund local energy savings or environmentally preferable energy generation projects.

There are also other options available. Menlo Park could join the San Mateo County CCA, potentially link with the City of Palo Alto's municipal electric utility, or work with PG&E to decrease GHG emissions from their electrical sources. Staff is also aware that Santa Clara County and several local cities are interested in forming a CCA. At this stage, providing a resolution of support for the San Mateo County CCA does not preclude Menlo Park from pursuing these other options.

As background information, Attachment C shows a rough order of magnitude cost estimates for each stage of CCA formation, from Sunnyvale City staff working on the CCA effort currently being funded by Sunnyvale, Mountain View, Cupertino, and Santa Clara County.

The CCA would be formed as Joint Powers Authority (JPA) with officials from each of its member cities having voting power on its Board of Directors. Conducting the feasibility study and approving the attached resolution of support do not commit the City of Menlo Park to join the CCA, even if they express initial support for the idea.

IMPACT ON CITY RESOURCES

Staff time to attend county-wide CCA meetings, coordinate efforts, and provide information to the public will be required to support the CCA effort. The staff time needed to support the feasibility study can be absorbed with current staffing levels.

ENVIRONMENTAL REVIEW

The adoption of a resolution of support does not require an action under CEQA at this time. A future CCA project, if deemed feasible, will require complete CEQA environmental clearance at such time as required.

PUBLIC NOTICE

Public Notification was achieved by posting the agenda, with this agenda item being listed, at least 72 hours prior to the meeting.

ATTACHMENTS

- A. Resolution
- B. Selected Slides from CCA Presentation
- C. City of Sunnyvale's CCA cost estimates

Report prepared by:
Heather Abrams
Environmental Programs Manager

RESOLUTION NO.

**RESOLUTION OF SUPPORT TO PARTICIPATE IN A FEASIBILITY
STUDY OF A COMMUNITY CHOICE AGGREGATION PROGRAM
FOR SAN MATEO COUNTY**

WHEREAS, The City of Menlo Park has demonstrated its commitment to an environmentally sustainable future through its policy goals and actions, including energy reduction and the adoption of clean energy and sustainability programs,

WHEREAS, The County of San Mateo and the City Council of Menlo Park have identified Community Choice Aggregation as a promising strategy to meet local clean energy goals and projected greenhouse gas reduction targets; and,

WHEREAS, Community Choice Aggregation is a mechanism by which local governments assume responsibility for providing electrical power for residential and commercial customers in their jurisdiction in partnership with Pacific Gas & Electric Co. (PG&E); and,

WHEREAS, Community Choice Aggregation, if determined to be technically and financially feasible, could provide substantial environmental and economic benefits to all residents and businesses in Menlo Park; and,

WHEREAS, Community Choice Aggregation also provides the opportunity to fund and implement a wide variety of energy-related programs of interest to the community; and,

WHEREAS, In addition to technical and financial feasibility, it is important to determine whether there is adequate public support for Community Choice Aggregation; and,

NOW THEREFORE BE IT RESOLVED by the City Council of Menlo Park that:

The City of Menlo Park indicates its commitment to participate in the feasibility phase of Community Choice Aggregation in partnership with San Mateo County without obligation of the expenditure of any of the General Funds of the Menlo Park unless otherwise authorized by the City Council.

The City of Menlo Park may choose to participate on an inter-jurisdictional CCA Steering Committee (if one is formed) and may authorize staff to participate in the preparation of the CCA technical study.

Adoption of this resolution in no way binds or otherwise obligates the City of Menlo Park to participate in Community Choice Aggregation, unless it so chooses by passage of a City ordinance.

I, Pamela Aguilar, City Clerk of Menlo Park, do hereby certify that the above and foregoing Council Resolution was duly and regularly passed and adopted at a meeting by said Council on the twenty-fourth day of February, 2015, by the following votes:

AYES:

NOES:

ABSENT:

ABSTAIN:

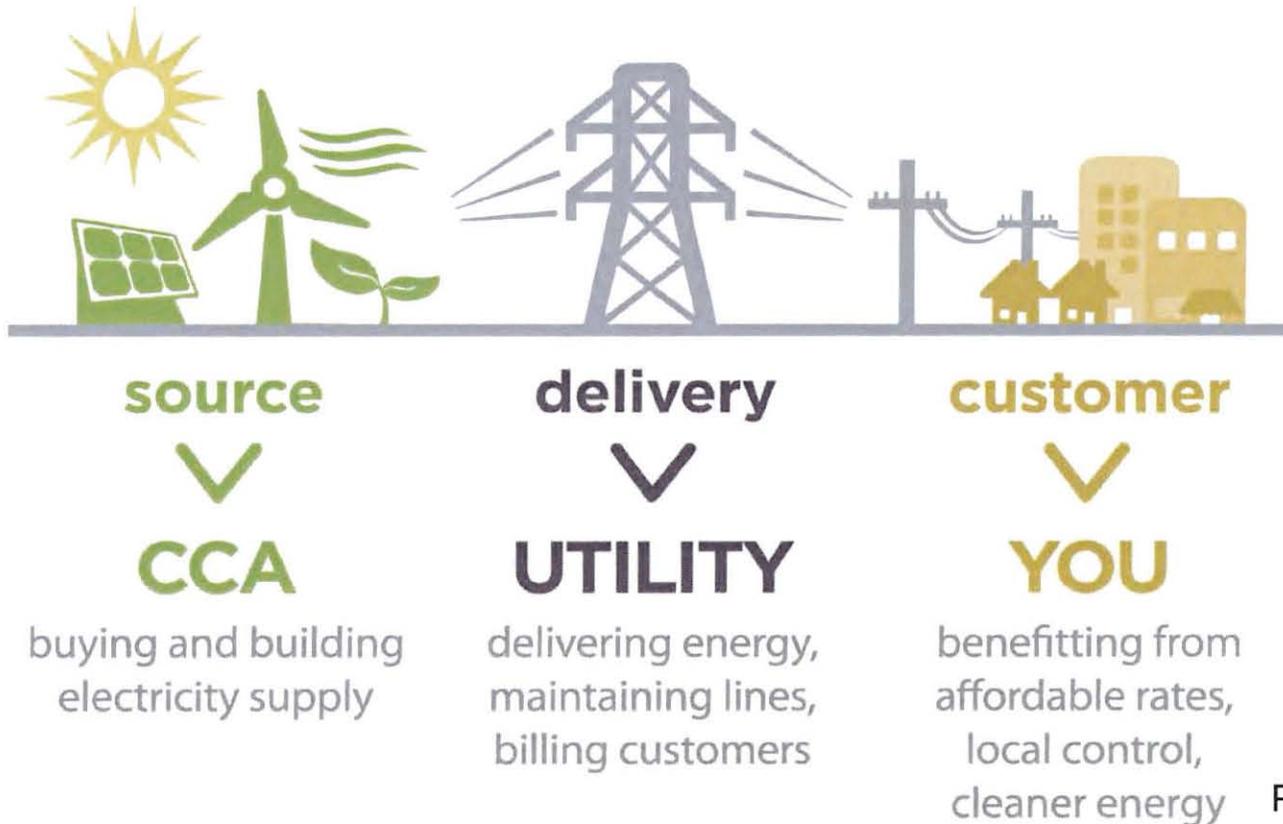
IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Official Seal of said City on this twenty-fourth day of February, 2015.

Pamela Aguilar
City Clerk

WHAT IS CCA?

CCA leverages the market power of group purchasing, consumer choice, and local decision-making. It enables local governments to procure and/or develop power on behalf of their public facilities, residents and businesses. CCA creates a functional partnership between municipalities and existing utilities. It has the proven ability to lower electricity rates and rapidly green the grid.

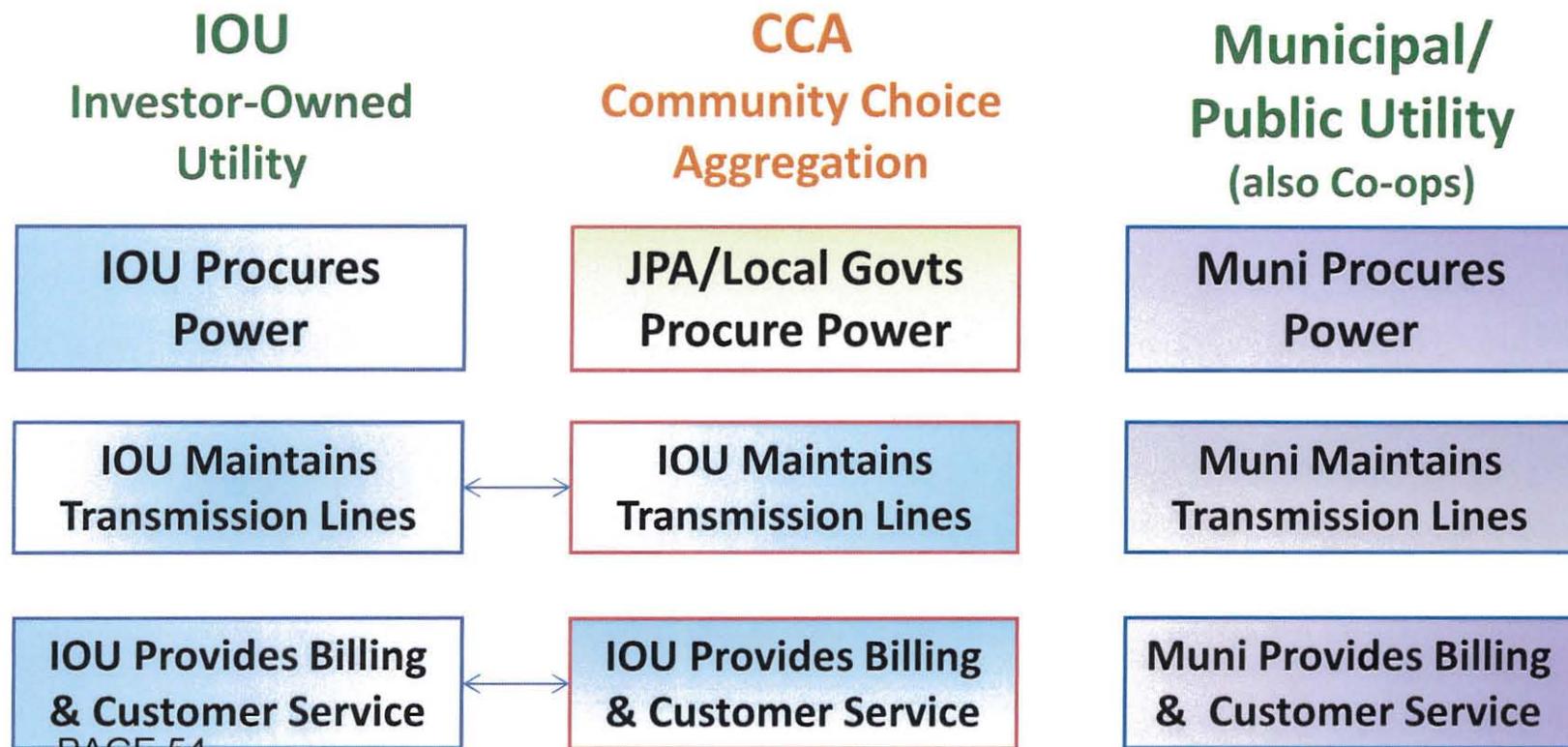
How Local Energy Aggregation Works



A HYBRID APPROACH



Roughly 70% of U.S. electricity is supplied by vertically integrated investor-owned utilities (IOUs), with much of the balance coming from publicly-owned municipal utilities and co-ops. *CCA offers a third, hybrid option, where the supply and transmission functions are split between a public entity and the IOU.*



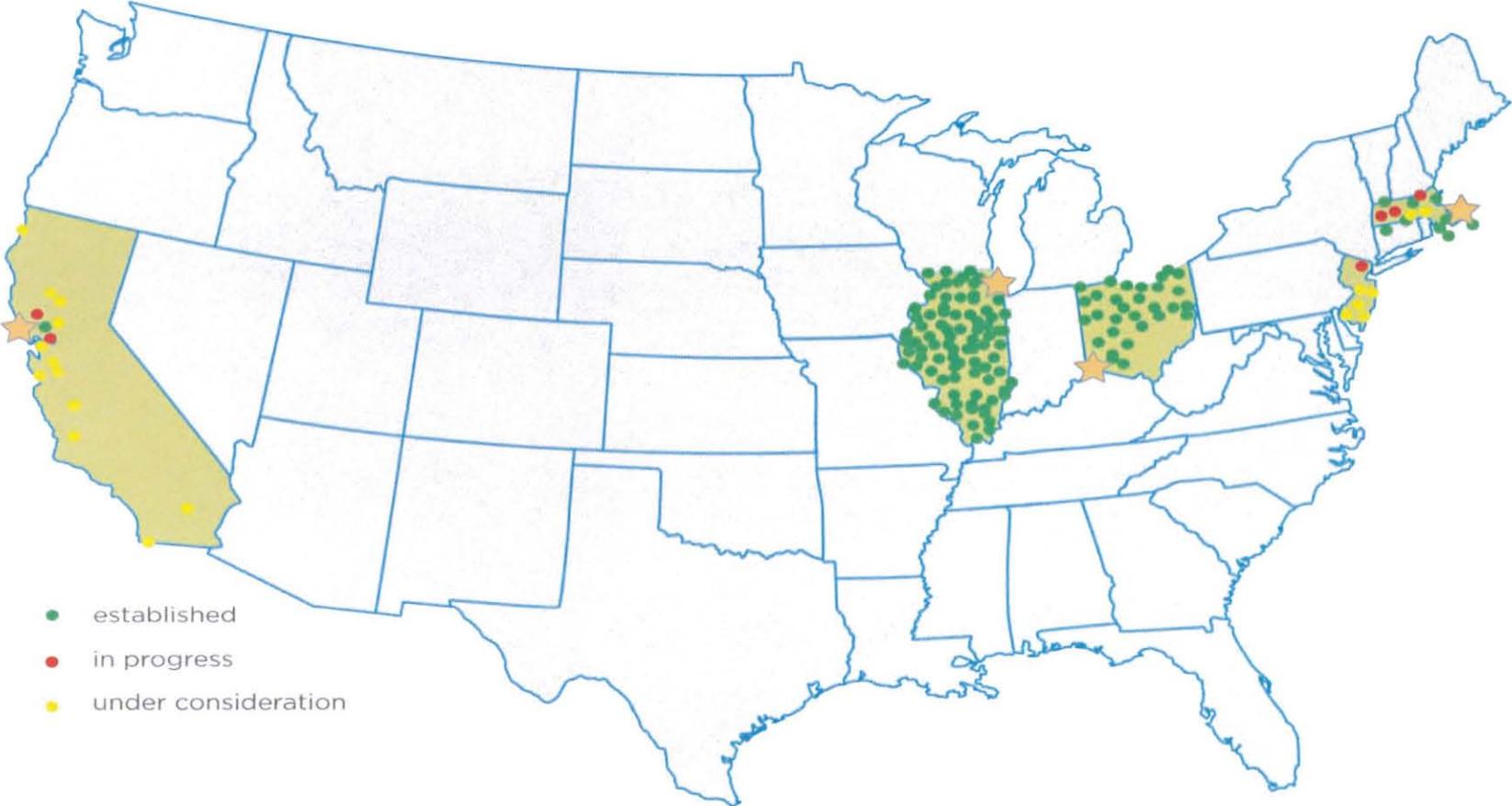
WHY IS CCA SO POWERFUL?

- Responsive to *Local* Environmental and Economic Goals
- Offers Consumers a Choice
- Revenue Supported, Not Taxpayer Subsidized
- Stable, Often Cheaper, Electricity Rates
- Allows for Rapid Switch to Cleaner Power Supply
- Leverages Public and Private Sector \$\$ and Opportunities
New local programs, renewable generation, job creation, and economic development

CCA Responds to California State Climate & Clean Energy Policy

2002/2011	AB 117 and SB 790 - CCA Legislation
2006	AB 32 – Global Warming Solutions Act 15% below 1990 levels by 2020
Revised 2011	CA State RPS and RA requirements Laws governing utility renewable energy standards and resource adequacy (RPS = 33% by 2020)
2011/2012	Governor’s Renewable Energy Mandate - 12,000 MW local/distributed RE by 2020 http://www.law.berkeley.edu/12901.htm

CCA ACROSS THE COUNTRY



- established
- in progress
- under consideration

CCA By the Numbers:
(as of 10/2013)

Illinois – 650	Massachusetts - 26
Ohio – 260	California – 2+
Rhode Island – 42	New Jersey – 6

KEY PROGRAM FEATURES

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

- JPA or special district can operate a CCA in CA; local governments participate by passing an ordinance
- Utility continues to provide billing, customer service, line maintenance and repair; codified in Service Agreement
- CCA electricity charges appear as a new section of the utility bill – all other charges the same
- CCA is an opt-out program; Customers receive 4 opt-out notices over 120 day period and can return to PG&E any time.
- CPUC certifies CCA plan; oversees relationship between utility/CCA



Sample Bill – Marin Clean Energy

SAMPLE BILL: PAGE ONE

1



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

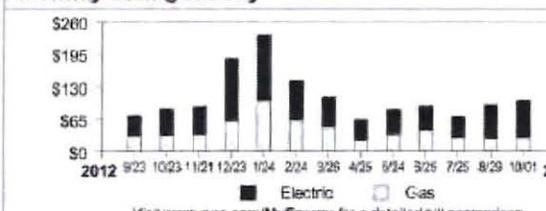
Local Office Address

750 LINDARO STREET, STE 160
SAN RAFAEL, CA 94901

Your Account Summary

Amount Due on Previous Statement	82.85
Payments Received Since Last Statement	82.85
2 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
4 Total Amount Due	\$109.33

Monthly Billing History



Visit www.pge.com/MyEnergy for a detailed bill comparison

Important Messages

Your charges on this page are separated into delivery charges from PG&E and generation or procurement charges from an energy provider other than PG&E. These two charges are for different services and are not duplicate charges.

Electric power line safety PG&E cares about your safety. Be aware of your surroundings and keep yourself, tools, equipment and antennas at least 10 feet away from overhead power lines. If you see an electric power line fall to the ground, keep yourself and others away, call 9-1-1 and then PG&E at 1-800-743-5000.

Daily Usage Comparison

	1 Year Ago	Last Period	Current Period
Electric kWh / Day	9.68	12.27	12.28
Gas Therms / Day	0.83	0.75	0.75

CCA AS A LOCAL ENERGY STIMULUS



- Power Purchase Agreements (PPA) w/ optional buy-out provisions
- CCA-sponsored energy projects; team with private company to leverage investment tax credits
- Local Feed-in-Tariff and Net Energy Metering programs for small projects and residential/commercial solar
- Community solar gaining in popularity; EV charging stations
- Energy Efficiency funding is available; on-bill repayment for building upgrades, solar installs
- Organizational partnerships for local job training, energy audits, building upgrades and installations

WHAT ARE THE RISKS...

And how are they mitigated?



Rate Competition: Market expertise and well crafted power RFP is essential; Long vs. short term contracts; Diversified supply portfolio and integrated energy plan



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 state and local policy objectives; Appeal to both progressive and conservative minds; Local education and advocacy is key



Regulatory/Legislative: Track influencing statues and legislation; Participate in the CA regulatory process

1. Political/Community

- Resolutions of support and participation
- Community education/endorsements
- JPA Ordinance
- Marketing and outreach/opt-out notices

2. Technical

- Technical Study - load and rate analysis, economic impacts, environmental attributes and supply options
- JPA - legal formation, vendor contracts
- Implementation Plan, Service Agreement, etc.

3. Financial Considerations

- Technical study and community outreach
- CCA formation costs
- Bridge financing from 1st contract to 1st revenue

Remember: All development and formation costs are reimbursable from early program revenue!



Case Study: Marin Clean Energy

- May 2010: Start of service for Phase I customers
- As of 2014: 125,000 customers; 77% of customer base
- Service area includes City of Richmond and Marin County
- 13-Member Board of Directors
- 67,500+ tons of GHG reductions to date



Residential Cost Comparison

MCE proposed rates effective April 6, 2014
 PG&E proposed rates effective May 1, 2014

	PG&E	MCE Light Green	MCE Deep Green
<i>508 kWh, E-1/Res-1</i>	19%	50%	100%
Electric Generation	\$46.74	\$40.13	\$45.21
Added PG&E Fees	-	\$5.89	\$5.89
Electric Delivery	\$36.26	\$36.26	\$36.26
Total Electric Cost	\$83.00	\$82.28	\$87.36

Commercial Cost Comparison

MCE proposed rates effective April 6, 2014
 PG&E proposed rates effective May 1, 2014

	PG&E	MCE Light Green	MCE Deep Green
<i>1,182 kWh, A-1/Com-1</i>	19%	50%	100%
Electric Generation	\$138.44	\$112.29	\$124.11
Added PG&E Fees	-	\$12.19	\$12.19
Electric Delivery	\$131.51	\$131.51	\$131.51
Total Electric Cost	\$269.94	\$255.98	\$267.81

The Journey Begins

Gathering Info & Interest	Feasibility Analysis	CCA Formation	CCA Operation
<ul style="list-style-type: none"> • ID potential agency partners • ID opportunities, costs, and risks • Investigate other CCAs • Inform community and gather feedback • Framework for next steps 	<ul style="list-style-type: none"> • ID partners & funding • Technical Study: load and rate analysis, economics, supply options, environmental outcomes • Community outreach & input 	<ul style="list-style-type: none"> • Resolutions of support • JPA Ordinance • Implementation Plan to PUC • Service Agreements with PG&E • Bridge financing to revenue • Customer noticing 	<ul style="list-style-type: none"> • Board of Directors • Contracts and Agreements • Conservation & Renewables programming • Customer service
\$ X0 K	\$ X00 K	\$ X M	\$ XXX M

