

# Community Choice Aggregation

**A Local Energy Model to Green the Grid, Offer Consumer Choice,  
and Boost Local Economies**

January 8, 2015



## Authorized by CA Assembly Bill 117 in 2002

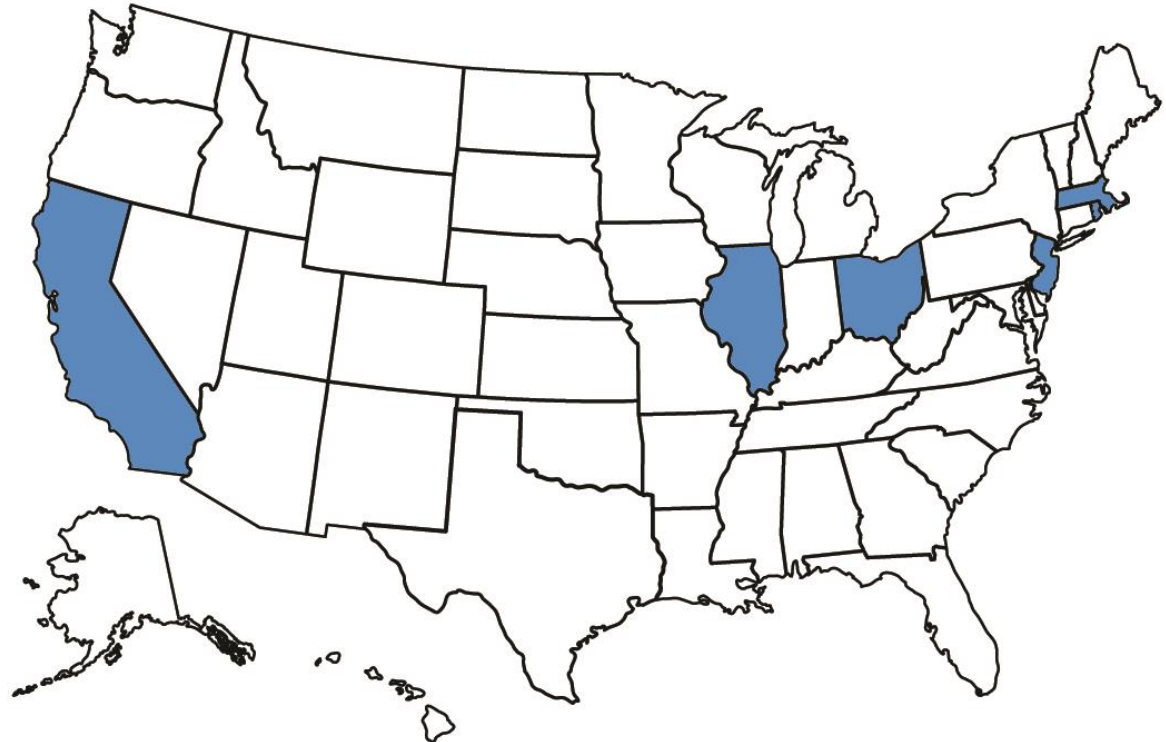
CCA allows communities to pool their electricity demand in order to purchase and potentially develop power on behalf of local residents, businesses, and municipal facilities.

### CCAs in 6 States

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

### Under Consideration

Utah, New York,  
Delaware,  
Minnesota

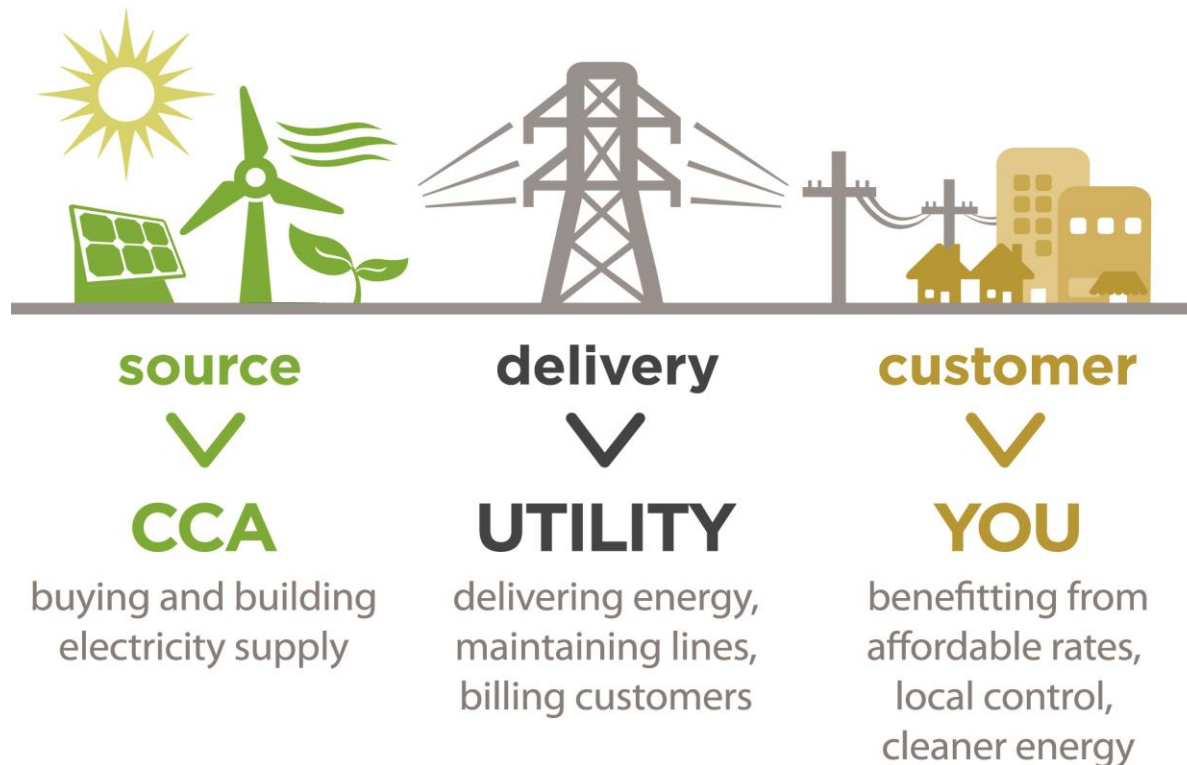


# How Does It Work?

## *CCA leverages the market power of group purchasing and local control.*

- It creates a partnership between municipalities and investor-owned utilities.
- CCA allows local governments to procure power on behalf of all customers within its borders.

### How Local Energy Aggregation Works



# Why is CCA So Powerful?



- Responsive to *local* environmental and economic goals
- Offers consumers a choice where none currently exists
- Revenue supported, not taxpayer subsidized
- Stable, often cheaper, electricity rates
- Allows for rapid switch to cleaner power supply and significant GHG reductions
- Provides funding for energy efficiency and innovative energy programs like energy storage and EV charging stations

## CCA Responds to State and Local Climate & Energy Policy

<b>2002/2011</b>	<b>AB 117 and SB 790</b> - CCA Legislation
<b>2006</b>	<b>AB 32</b> – Global Warming Solutions Act 15% below 1990 levels by 2020
<b>Revised 2011</b>	<b>CA State Renewable Portfolio Standard (RPS) and Resource Adequacy (RA) requirements</b> Laws governing utility renewable energy requirements (RPS = 33% by 2020)
<b>2011/2012</b>	<b>Governor’s Renewable Energy Mandate</b> - 12,000 MW local/distributed RE by 2020 <a href="http://www.law.berkeley.edu/12901.htm">http://www.law.berkeley.edu/12901.htm</a>
<b>Current</b>	<b>Local Climate Action &amp; General Plans</b>


# Basic 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 (PG&E) continues to provide consolidated billing, customer service, line maintenance; relationship codified in Utility Service Agreement
- CCA electric generation charges appear as a new section of customer bill; all other charges are the same
- CCA is an opt-out program; Customers receive *minimum 4 opt-out notices over 120 days and can return to PG&E service any time.*
- CPUC certifies CCA Plan; oversees utility/CCA relationship and other requirements such as RPS and RA requirements.





## ENERGY STATEMENT

[www.pge.com/MyEnergy](http://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

**Your Account Summary**

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

**Total Amount Due \$109.33**

**Questions about your bill?**

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

**Local Office Address**


750 LINDARO STREET, STE 160  
 SAN RAFAEL, CA 94901

## Page 1

**Important Messages**

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

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



## ENERGY STATEMENT

[www.pge.com/MyEnergy](http://www.pge.com/MyEnergy)

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

**Details of MCE Electric Generation Charges**

10/01/2013 – 11/01/2013 (31 billing days)  
 SERVICE FOR: 1234 STREET AVENUE  
 Service Agreement ID: 0123456789 ESP Customer Number: 0123456789

**10/01/2013 – 11/01/2013**

<b>Rate Schedule:</b>		<b>RES-1</b>
DEEP GREEN - TOTAL	508.000000 kWh @ \$0.0100	\$5.08
GENERATION - TOTAL	508.000000 kWh @ \$0.07400	\$37.59
	Net charges	\$42.67

**Service Information**

Total Usage 508.000000 kWh

For questions regarding charges on this page, please contact:  
 MCE  
 781 LINCOLN AVE STE 320  
 SAN RAFAEL CA 94901  
 1-888-632-3674  
[www.mceCleanEnergy.com](http://www.mceCleanEnergy.com)

**Additional Messages**

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

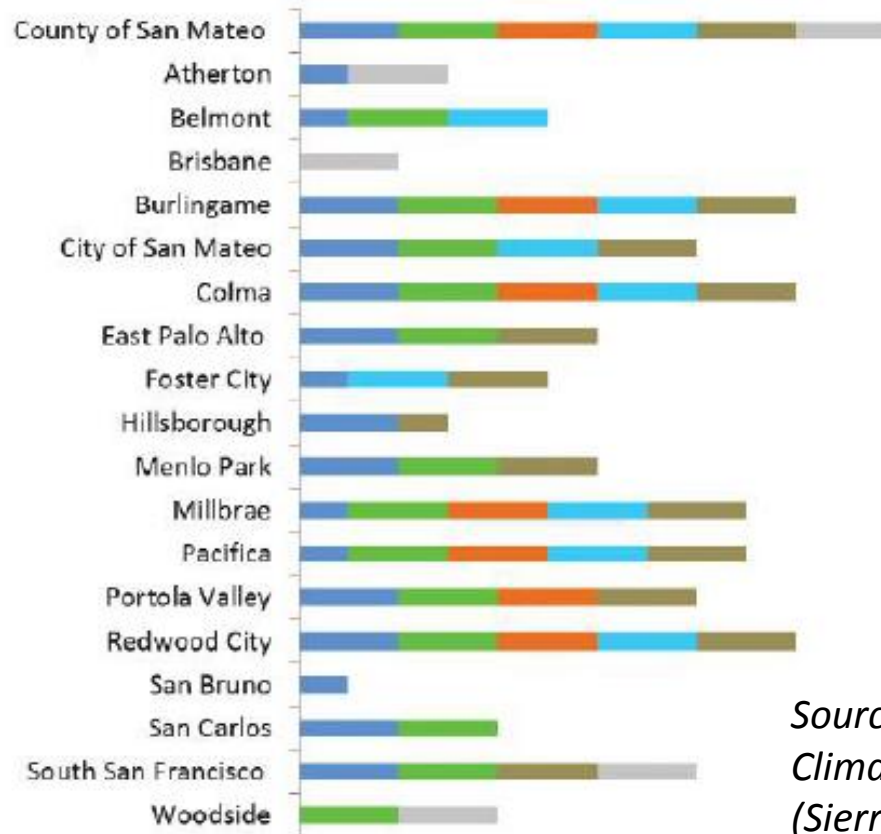
Energy Surcharge	\$0.14
<b>Total MCE Electric Generation Charges</b>	<b>\$42.81</b>

# CCA Responds to Local CAP Goals



## Commitment to Climate Action

- Developed Climate Action Plan
- Signed Climate Protection Agreement
- Assigned Climate Staff
- Community-Wide Reduction Targets
- Created Climate Action Committee
- Other Commitments Made



*Source: Local Government Climate Action Survey, 2014 (Sierra Club, Loma Prieta Chapter)*



# And Supercharges GHG Reduction

Excerpt from Town of San Anselmo's CAP (2010)



## Our Plan to Reduce Greenhouse Gas Emissions

Local Actions	Metric Tons of CO <sub>2</sub> e Reduced
Encourage Transit-Oriented Housing	23
Increase Walking and Biking for Local Trips	524
Increase Public Transit Use	535
Increase Ridesharing	311
Accelerate Adoption of Electric Vehicles	731
Improve Energy Efficiency in Residential Buildings	954
Improve Energy Efficiency in Commercial Buildings	296
Reduce Energy Use in New Residential Buildings	116
Reduce Energy Use in New Commercial Buildings	13
Install Solar Energy Systems in Residential Buildings	1,294
Install Solar Energy Systems in Commercial Buildings	560
Marin Energy Authority	6,053
Divert All Food Waste from Landfills	395
Reduce Solid Waste Disposal to Landfills	443
Reduce Hot Water Use in Community	922
Community Participation in Carbon Offset Programs	812
Increase Tree Stock	2
Improve Government Operations (see below)	254
<b>SUBTOTAL</b>	<b>14,238</b>
<b>State Actions</b>	<b>6,176</b>
<b>TOTAL</b>	<b>20,414</b>

# CCA's Potential GHG Impact in SMC



## Excerpt from the City of San Mateo's Draft CAP:

*CCA has the potential to reduce 27,000 tCO<sub>2</sub> in the City each year... more than twice as much as any other measure.*

## Some Quick Calculations...

- PG&E 2014 Emissions Rate (ER) = 445 lbs CO<sub>2</sub>/MWH
- Marin Clean Energy's 2014 Emissions Rate = 373 lbs CO<sub>2</sub>/MWH
- San Mateo County annual electricity consumption = 4.5M MWH or 910,227 metric tons of CO<sub>2</sub>/year using PG&E's ER.

*So, if San Mateo merely matched MCE's power mix and ER, it would translate to 762,954 MT/year, a **147,273-ton reduction in CO<sub>2</sub> annually.***

The equivalent of removing 11,000 cars from the road each year!

# Overview of CCA Economics



- CCA is a revenue-based enterprise, not government subsidized
  - Supported by redirected generation revenues from IOU
- Utility kept whole through cost recovery surcharges/exit fees
- CCA's estimated gross annual value in San Mateo County = \$356M\*
  - Plus leveraged funding and avoided costs of compliance
- Average start-up investment: \$1.5-\$3.5M depending on program size
  - Start-up costs fully recoverable from early operating revenues
- Financing is available for initial energy contracts and working capital
- CCAs have public agency bonding authority to initiate local power projects.
- Low overhead -- no shareholder profits or multi-million \$\$ salaries

*\* 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 with commercial customers included.*

# CCAs Can Save Cities & Citizens Money



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

- The City of San Rafael (municipal operations) saved \$47,000 in 2014
- The City of Richmond (municipal operations) has saved \$40,000 since joining MCE
- West Contra Costa Unified School District is projected to save \$60,000 per year from its operations in Richmond and San Pablo
- 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.



# Case Study – Marin Clean Energy



- May 2010: service starts 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
- 177 MW new renewable energy in development for MCE customers
- 131 M tons of GHG reductions to date (2010-2013 reporting periods)
- 1,800 jobs created/supported by MCE; most in construction sector
- MCE customers saved \$5.9 million in 2014

# 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
<b>Total Cost</b>	<b>\$93.87</b>	<b>\$90.77</b>	<b>\$95.85</b>	<b>\$122.78</b>

- 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



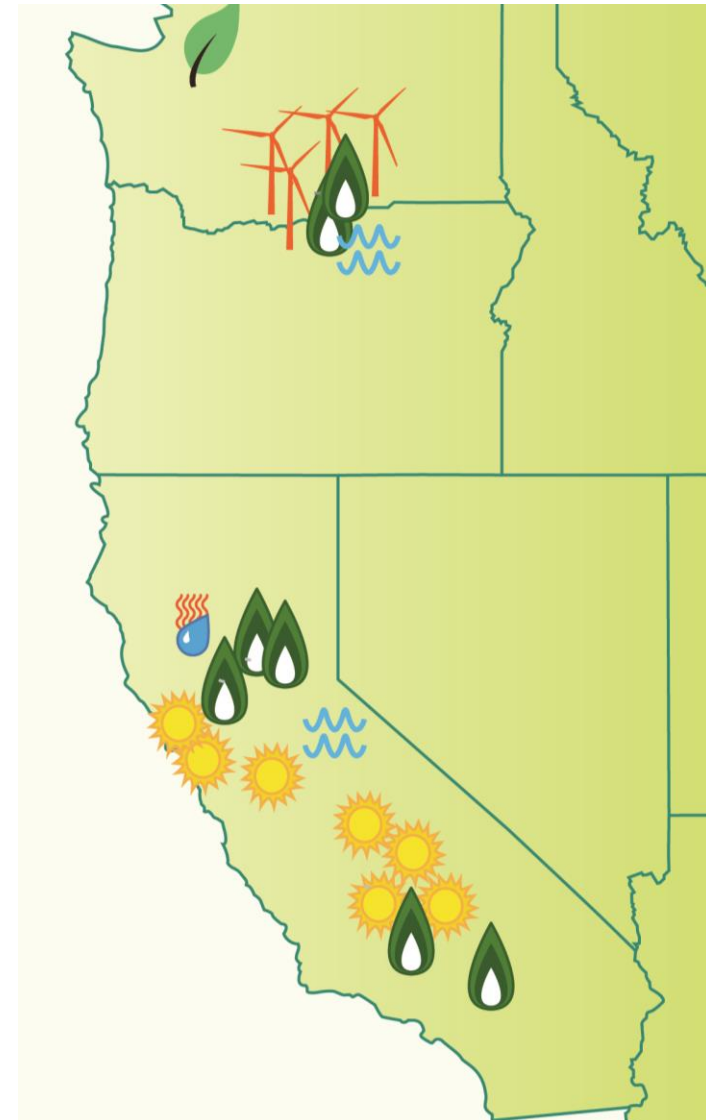
1,405 kWh A-1/Com-1	PG&E 22%	MCE Light Green 50%	MCE Deep Green 100%	MCE Local Solar 100%
Delivery	\$154.70	\$154.70	\$154.70	\$154.70
Generation	\$142.54	\$111.00	\$125.05	\$199.51
PG&E Fees	-	\$15.45	\$15.45	\$15.45
<b>Total Cost</b>	<b>\$297.24</b>	<b>\$281.15</b>	<b>\$295.20</b>	<b>\$369.66</b>

- 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

# MCE Power Sources 2010-2018

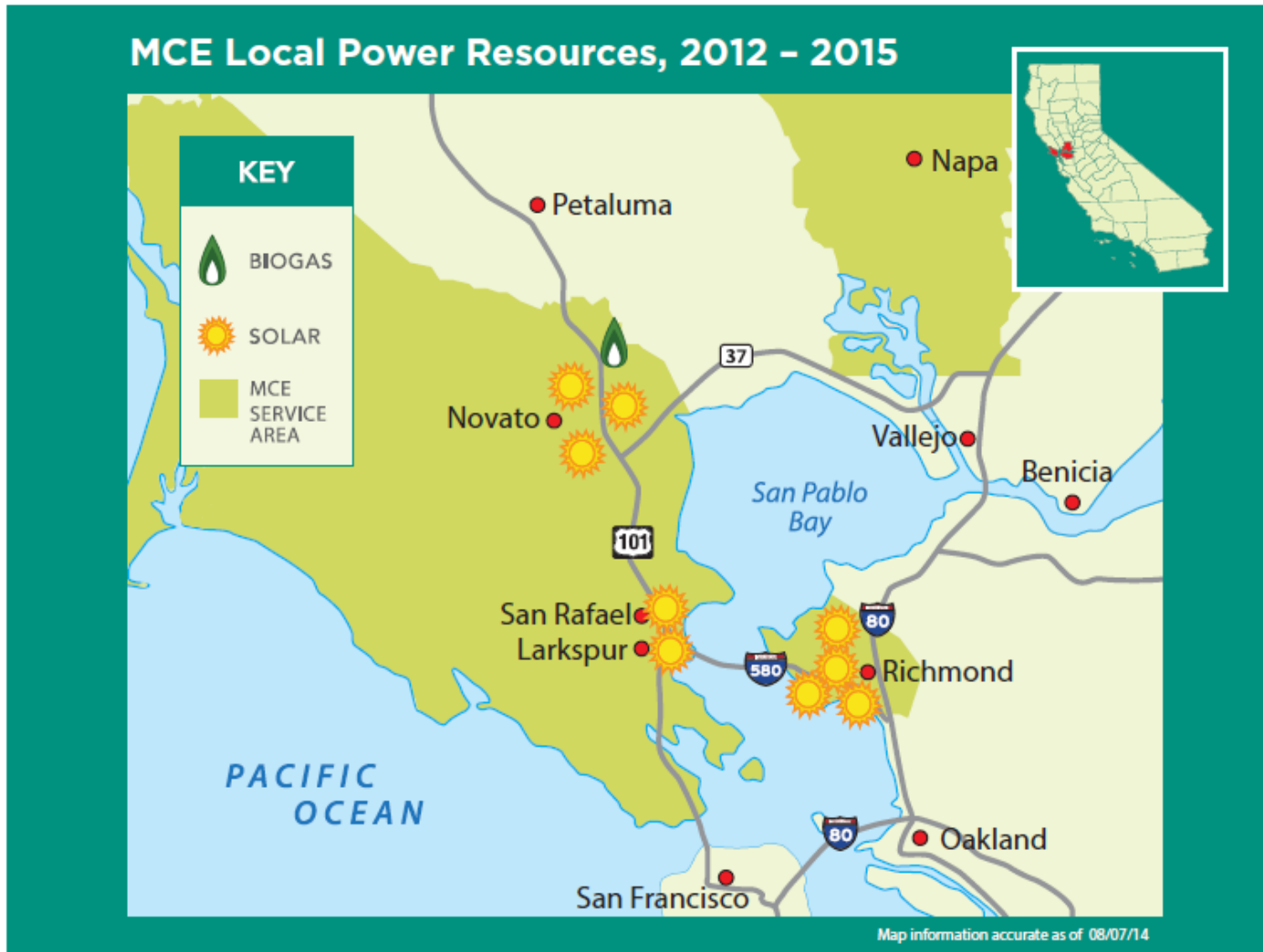


- Contracts with 17 Energy Suppliers
- More than 177 MW of new California renewable energy under development for MCE customers
- 20 MW of local solar in development
- Enough clean energy to power approximately 85,000 homes per year





# CCA Facilitates Local Renewable Power



# Sonoma Clean Power



- May 2014: service starts for 22,000 commercial customers
- December 2014: Roll out to 140,000 residential customers
- SCP has 92.6% of customer base (avg. 7.4% opt out rate)
- Service area includes unincorporated Sonoma County all of its cities
- Average rates 5%-8% lower than PG&E
- Phase I customers saved \$6M in first seven months of program
- Product Options: CleanStart @ 33% and Evergreen @ 100% CA qualified renewable power
- 100% renewable product sourced from Calpine/local geo- thermal plant
- 70MWs new solar for SCP customers recently announced

# CCA: What are the Risks...

*And how are they mitigated?*



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



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



**Political:** Align CCA to local policy objectives; Appeal to both progressive and conservative minds by making the environmental AND business case; Local education and advocacy is key.



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

# Now is the Time... The 3 Year Outlook



- ✓ Historic gas lows help achieve competitive pricing
- ✓ Solar tax credit shrinking or expiring at end of 2016
- ✓ Utilities are fully resourced through 2018-2020; excess power available
- ✓ Capacity charges currently low
- ✓ Affordable financing available



# Momentum Around the Bay



## All Nine Counties Engaged ...

Operational:	Marin, Sonoma Counties
Joining Marin:	Unincorporated Napa, City of Benicia and San Pablo
Moving Ahead:	Alameda County
Early Investigations:	San Mateo, Santa Clara Contra Costa Counties
On Political Hold:	San Francisco City/County
Up Next:	Solano County



# Next Steps in San Mateo County



- CCA workshops on Wednesday, 1/28 – please join us!
- Build outreach database and connect with key stakeholders
- Return to Board of Supervisors in late February/early March
  - Study authorization, potential funding and approval of plan to move forward
- Countywide Technical Study



# What We're Asking From the Cities

- Indicate your interest by authorizing electrical load data for CCA Technical Study
  - via City resolution or letter
- Help us identify key stakeholder groups in your area
- Attend CCA briefings; participate in future steering committee if formed
- *No anticipated cost to the Cities*





# *Thank you!*

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

*CCA is the path forward.*