Community Choice Aggregation

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

April 8, 2015

City of Davis, CA
CCA In Context

Authorized by CA Assembly Bill 117 in 2002

CCAs in 7 States
- California
- Illinois
- Massachusetts
- New Jersey
- Ohio
- Rhode Island
- New York

Under Consideration:
Utah, Delaware, Minnesota
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Proposition 16 Defeated; First CCA in Marin</td>
</tr>
<tr>
<td>2011</td>
<td>CA RPS Rises to 33% by 2020</td>
</tr>
<tr>
<td>2011-2014</td>
<td>SB 790/Utility Code of Conduct passes; Significant regulatory engagement; CCA outreach and education begins (Sonoma, Monterey, Arcata, Yolo County, Lancaster...)</td>
</tr>
<tr>
<td>2014</td>
<td>Sonoma Clean Power launches; AB 2145 defeated; Surge in local interest and awareness</td>
</tr>
<tr>
<td>2015</td>
<td>Lancaster Choice Energy launching in May; Several other cities and counties entering Phase I</td>
</tr>
</tbody>
</table>
CCA is Poised for Growth in CA

**Operational CCAs**
- MCE Clean Energy
- Lancaster Choice Energy
- Sonoma Clean Power

**LEAN's Municipal Clients**
- Alameda County
- City of San Diego
- City of Sunnyvale/Silicon Valley Partnership
- San Mateo County

**Exploring CCA**
- Butte County
- City of Arcata/Humboldt County
- City of Davis/Yolo County
- Contra Costa County
- LA County/South Bay Consortium
- Lake County
- San Luis Obispo/Morro Bay
- Mendocino County
- Monterey Bay Community Power (Tri-County)
- Napa County Cities
- San Bernardino County
- San Diego County
- Santa Barbara County
- Solano County
- Ventura County
CCA is a Local Economic Engine

• Est. annual gross revenues in Yolo County = ~$134 M*

• Public agency bonding authority to initiate or co-sponsor local power projects.

• Excess revenues can be leveraged for locally tailored energy programs (e.g. EE/DR, EV charging stations)

• Low overhead, no shareholder profits or multi-million salaries

• Percentage of revenues back to the City is permissible if General Fund support is a goal

• In current programs, economic/program risk is low

*http://ecdms.energy.ca.gov/ Yolo County 2013 electrical consumption = 1.7 B kwh x .079/kwh which is MCE’s current E-1 residential rate.
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.
- SCP’s customers are saving $6M in first year of service.
- Sonoma’s current rates are 6-9% lower than PG&Es and 10-14% lower for low income CARE customers.
- The City of San Rafael (municipal operations) saved $47,000 in 2014.
- West Contra Costa Unified School District projected to save $60,000 per year from its operations in Richmond and San Pablo.
And It’s Good for Business

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

- Rate savings are only the tip of the iceberg
- New energy contracts = new power projects, new CA and local jobs
- Local Feed-in-Tariff, Net Energy Metering incentivizes local solar
- Public/Private Partnerships: Community Solar, PACE Financing, Commercial Battery Storage, Home Area Networks, EV Charging Stations, etc.
- Energy Efficiency funding available from utility and state
- On-bill repayment option and green business loans
- Local job training programs that focus on underserved populations
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 Marin County, unincorporated Napa, Richmond ++
- 15-Member Board of Directors
- 195 MW new renewable energy in development for MCE customers, including 20 MW of local solar and 10.5 MW project in Richmond
- 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

### Comparison Table

<table>
<thead>
<tr>
<th>Service</th>
<th>PG&amp;E</th>
<th>MCE Light Green 50%</th>
<th>MCE Deep Green 100%</th>
<th>MCE Local Solar 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>508 kWh E-1/Res-1</strong></td>
<td>$44.37</td>
<td>$44.37</td>
<td>$44.37</td>
<td>$44.37</td>
</tr>
<tr>
<td><strong>Delivery</strong></td>
<td>$49.50</td>
<td>$40.13</td>
<td>$45.21</td>
<td>$72.14</td>
</tr>
<tr>
<td><strong>Generation</strong></td>
<td>-</td>
<td>$6.27</td>
<td>$6.27</td>
<td>$6.27</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td>$93.87</td>
<td><strong>$90.77</strong></td>
<td>$95.85</td>
<td>$122.78</td>
</tr>
</tbody>
</table>

- 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

<table>
<thead>
<tr>
<th>1,405 kWh</th>
<th>PG&amp;E 22%</th>
<th>MCE Light Green 50%</th>
<th>MCE Deep Green 100%</th>
<th>MCE Local Solar 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery</td>
<td>$154.70</td>
<td>$154.70</td>
<td>$154.70</td>
<td>$154.70</td>
</tr>
<tr>
<td>Generation</td>
<td>$142.54</td>
<td>$111.00</td>
<td>$125.05</td>
<td>$199.51</td>
</tr>
<tr>
<td>PG&amp;E Fees</td>
<td>-</td>
<td>$15.45</td>
<td>$15.45</td>
<td>$15.45</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td><strong>$297.24</strong></td>
<td><strong>$281.15</strong></td>
<td><strong>$295.20</strong></td>
<td><strong>$369.66</strong></td>
</tr>
</tbody>
</table>

- 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
CCA Facilitates Local Renewable Power

MCE Local Power Resources, 2012 - 2015

KEY

- BIOGAS
- SOLAR
- MCE SERVICE AREA

Map information accurate as of 08/07/14
Sonoma Clean Power

- May/December 2014: service starts for 22,000 commercial customers; December roll out to 140,000 residential customers
- SCP has 11% opt out rate so far, and projects about 15% over time.
- Average rates are 6%-9% lower than PG&E and 10-14% lower for low income CARE customers
- SCP customers are saving $6M in first year of program
- Product Options: CleanStart @ 33% and Evergreen @ 100% CA qualified renewable power
- 100% renewable product sourced from Calpine/local geo-thermal plant
- 70MWs plus 12.5 MW local project with County water agency for solar on floating docks in irrigation holding pond
## 2015 Residential Cost Comparison

### Example Residential Electric Charges
- Based on a home using 500 kWh per month on the RES-1 (E-1) rate

<table>
<thead>
<tr>
<th>Service</th>
<th>PG&amp;E</th>
<th>CleanStart</th>
<th>EverGreen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Generation (all customers)</td>
<td>$48.73</td>
<td>$35.50</td>
<td>$53.00</td>
</tr>
<tr>
<td>PG&amp;E Electric Delivery* (all customers)</td>
<td>$58.85</td>
<td>$58.85</td>
<td>$58.85</td>
</tr>
<tr>
<td>Additional PG&amp;E Fees (SCP customers only)</td>
<td>$0.00</td>
<td>$6.17</td>
<td>$6.17</td>
</tr>
<tr>
<td><strong>Average Total Cost</strong></td>
<td><strong>$107.57</strong></td>
<td><strong>$100.52</strong></td>
<td><strong>$118.02</strong></td>
</tr>
</tbody>
</table>

*PG&E fees are calculated by Sonoma Clean Power using rate data provided by PG&E effective on January 1, 2015.  
†Based on 2014 forecasted data, as reported by PG&E. The Power Content comparison, linked at left, contains 2013 actual data for PG&E.
### 2015 Commercial Cost Comparison

#### Example Commercial Electric Charges

- Based on a business using 1,500 kWh per month on the COM-1 (A-1) rate

<table>
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<th>EverGreen</th>
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<tbody>
<tr>
<td>Electric Generation (all customers)</td>
<td>$153.42</td>
<td>$114.24</td>
<td>$166.74</td>
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<tr>
<td>PG&amp;E Electric Delivery* (all customers)</td>
<td>$165.75</td>
<td>$165.75</td>
<td>$165.75</td>
</tr>
<tr>
<td>Additional PG&amp;E Fees (SCP customers only)</td>
<td>$0.00</td>
<td>$16.50</td>
<td>$16.50</td>
</tr>
<tr>
<td><strong>Average Total Cost</strong></td>
<td><strong>$319.17</strong></td>
<td><strong>$296.49</strong></td>
<td><strong>$348.99</strong></td>
</tr>
</tbody>
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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, owned assets, and “value add” programs.

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

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

**Regulatory/Legislative:** PUC decisions may adversely affect CCA, and legislation (eg: AB 2145) can change program viability; Participate in the regulatory and legislative process.
CCA Administrative Frameworks

An Evolving Market is Yielding New Operational Models...

- Each has different benefits, trade-offs, risk profiles
- Your choice depends on local goals and conditions
- Fully research, compare, and understand cost/benefits

**Model A: Multi-Jurisdictional JPA**
(e.g. Marin and Sonoma; soon Monterey Bay, San Mateo and Alameda Counties...)

**Model B: Single City/Enterprise Fund**
(e.g. City of Lancaster)

**Model C: Commercial Managed Service**
(e.g. CA Clean Power, Good Energy)
**Administrative Model A**

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**Joint Powers Authority**

Public, Independent, Multi-Jurisdictional Agency

**Benefits:**
- Non-profit agency ensures high level of transparency, full revenue retention, and public accountability
- Low risk to participating cities: assets and liabilities are legally separate from member govts.
- Program integration beyond power procurement
- Localized revenue can stimulate local jobs and local power projects

**Tradeoffs:**
- Start-up takes time, effort and money
- No excess revenue paid to municipal general funds
- Long-term commitment
Administrative Model B

Single City/Enterprise Fund
Public, Independent, “In House”

Benefits:
• City (or County) retains full program autonomy and all revenues
• Local programming, local power devt, and local jobs
• Program integration beyond CCA
• Existing municipal examples within Enterprise Fund structure

Tradeoffs:
• Start-up takes time, effort and money
• Single city = Less cost-spreading over large customer base
• Potentially higher risk due to limited scale and lack of standard management practices
Administrative Model C

Commercial Managed Service
Private, multi-jurisdictional

Benefits:
• Low or no up-front cost to the local government
• Negotiable excess revenues can support general fund
• Plug and Play = less time, effort, commitment

Tradeoffs:
• Save now, pay later (management fees, investor profits)
• Less local autonomy and public transparency re: revenue generation/split
• Local programs and opportunity for local project devt. unknown
• Long-term procurement and operational risk profile unknown
Key Questions

1. What is your Local Context?
   • Local policy mandates/objectives
   • Size of community
   • Flying solo or working together
   • Available resources/capacity?
   • Risk tolerance

2. What are your Long-Term Goals?
   • Economic, Environmental, Local/Regional

3. Municipal Philosophy & Politics
   • Public, private, both
   • Supportive leadership?
Now is the time to take control of your local energy future!

CCA is the path forward.

For More Information:

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