SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

985

FROM: Executive Office

SUBMITTAL DATE:
June 13, 2016

SUBJECT: Community Choice Aggregation/Community Choice Energy Implementation

RECOMMENDED MOTION: That the Board of Supervisors:
1. Receive and file the CCA Feasibility Study – Initial Economic Analysis Report prepared by Good Energy, L.P.; and
2. Direct the Executive Office to:
   a. Prepare an ordinance for the Board's consideration which may, upon adoption by the Board, be submitted to the California Public Utilities Commission to begin the implementation process for a Community Choice Aggregation (CCA) program.
   b. Prepare a Request for Proposals for electrical power and other services necessary to implement a Community Choice Aggregation (CCA) program.

BACKGROUND:
Summary
Community Choice Aggregation (CCA), also referred to as Community Choice Energy, enables local governments to procure (aggregate) and/or develop electrical power on behalf of their public facilities, residents and businesses. In the CCA feasibility study it is indicated that County ratepayers could potentially save an average of 9% or 7.75 million dollars annually countywide.

Brian Nestande
Deputy County Executive Officer

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost:	POLICY/CONSENT (per Exec. Office)
COST	$	$	$	$	Consent ☐ Policy ☒
NET COUNTY COST	$	$	$	$	

SOURCE OF FUNDS:

Budget Adjustment:

For Fiscal Year:

C.E.O. RECOMMENDATION:

APPROVE

BY: Paul McDonnell

County Executive Office Signature

MINUTES OF THE BOARD OF SUPERVISORS

Departmental Concurrence

☐ Positions Added ☐ Change Order
☐ A-30 ☐ 4/5 Vote

Prev. Agn. Ref.: 3-17 of 1/12/2016 | **District:** All | **Agenda Number:** 3-8

BACKGROUND:
Summary (continued)

The first Community Choice Aggregation project occurred in 1997 in Cape Cod Massachusetts leading to the creation of the Cape Light Compact. In a short period of time, the idea of Community Choice Aggregation was able to expand to other states, to date 7 states permit CCA's to operate. A CCA creates a functional partnership between local governments and existing investor-owned utilities (IOU), such as Southern California Edison, whereby the electricity bought or developed by the local government will be distributed and delivered over existing electricity lines owned by the IOU to the CCA's customers. Additionally, all electricity billing, meter reading and customer service continues to be handled by the IOU. All IOU customers within the CCA's territory have the option of buying electricity from the CCA or remaining as generation customers of the IOU by exercising their rights to "opt out" of the CCA program. CCAs were first authorized in California in 2002 by Assembly Bill No. 117 (AB 117) and the legal framework for CCAs is set forth in Public Utilities Code sections 331.1, 366, 366.2, 381.1, 394 and 394.25.

Board actions necessary to implement a CCA entity.

1. County adoption of an ordinance. (staff to bring to Board within 60 days)
2. Issue a request for proposals to; draft an Implementation Plan and solicit electric generation proposals which will provide a precise estimate of rates. (staff to bring to Board with ordinance)
3. The Board approve award of the RFP.
4. The Board receives proposed power contracts and final Implementation Plan and decides whether to implement the CCA.
5. The finalized implementation Plan and the power supply contracts are approved by the Board.

In January 2016, the Board directed the Executive Office to prepare a report summarizing the findings of a preliminary economic analysis prepared by Good Energy for a County CCA program. Good Energy's "CCA Feasibility Study – Initial Economic Analysis Report" is attached and this agenda item serves as the Executive Office's report. The summary data reviewed by Good Energy and obtained from Southern California Edison (SCE), for the unincorporated areas served by SCE only, includes total usage for each applicable utility rate schedule for the calendar years 2014 and 2015. It is important to note that Good Energy's report does not contain any analysis of electricity usage in the cities in the County, nor does it include areas where a municipal utility or other public agency is already providing electric service. A CCA is not permitted to serve in areas where a municipal utility or public agency is already providing service.

Subject to the "Key Factors Affecting Savings" listed below, as further explained on pages 9-10 of Good Energy's report, Good Energy's report estimates potential average savings of 10% for commercial use (assuming those entities with increased costs chose to not join) and 9% for residential (domestic) use.

Key Factors Affecting Savings:

- Market Prices for Electricity
- Customer Usage Patters
- Utility Customer Responsibility Surcharge Charges
- Opt-Out Rate
- Regulatory Changes
- Administrative and Start-up Costs

These estimated potential savings could provide an economic incentive for businesses to locate in Riverside County. As the attached report indicates, not all commercial customers would experience savings and some may choose to keep their current provider/IOU. The economic analysis demonstrated cost savings for residential customers at all rate levels.

Community Choice Aggregation Program in California
As a result of passage of Assembly Bill 117, a number of communities in California have explored and implemented Community Choice Aggregation programs. Today, there are four active Community Choice Aggregation programs in California with several other communities exploring/implementing Community Choice Aggregation programs within the next few years.

Community power's penetration in California		
Service start date	**Program**	**Population served**
2010	Marin Clean Energy (MCE)	261,000
2014	Sonoma Clean Power	488,000
2013-2015	MCS adds Richmond, Benicia, El Cerrito, San Pablo, Napa	220,000
2015	Lancaster Choice Energy	161,000
2016	CleanPowerSF	852,000

The stated goal of the first implementers of the CCAs was to purchase more alternative energy than their current IOUs were providing. Apparently cost savings was not a threshold concern for the pioneering entities as one actually cost customers more than the previous IOU. Since that time, costs for alternative energy has decreased and those CCAs are now seeing cost reductions. All CCAs in California are bound to the same state-mandated Renewable Portfolio Standards as any IOU, namely at least 33% renewable energy by 2020 and 50% by 2030. Through a CCA, a local government can develop a electricity generation portfolio that diversifies fuel and technology types, is responsive to local environmental and economic goals, and, as estimated in Good Energy's report, potentially provides electricity to customers at a lower overall cost since electricity suppliers will likely compete for the right to serve a CCA's load. Another factor in favor of a CCA is the anticipated increases of rates from the IOUs.

Community Choice Aggregation Models
Organizational approaches that a County can take in implementing a CCA program vary in the degree of operational control, risk, and benefits afforded to the County.

Outsourced Model of Operations
The outsourced model is the national standard for operating CCA programs. Over 95% of operations outside of California use the outsourced model. In this model, the contract manager administers the program and would serve as a conduit between the County and a third party electric supplier. However, the Board of Supervisors still has the exclusive and final authority over all energy procurement decisions.

In House Model Operations
Alternatively, the County could implement a CCA program on its own in. Individual implementation would require a significant up front startup cost and have a higher operational cost as a result of the hiring of new employees dedicated to the running of the CCA . The current CCA's in the state all use the in house method with an average of 20 employees in each. Once again, this approach is unique to California.

Statutory/Regulatory Requirements
Per AB 117, a local government could become an Aggregator for electricity generation by passing an ordinance declaring the local government to be a CCA and developing an Implementation Plan for certification by the California Public Utilities Commission (CPUC). Both the ordinance and the Implementation Plan will be submitted to the Board for approval prior to submission to the CPUC. Any customers that do not want to participate in the CCA program are required to notify the County of their election to opt-out within a specified

amount of time. Customers opting out during the initial opt-out period would not be subject to penalty of any kind. Customers choosing to exit the CCA program after the initial opt-out period may be subject to exit fees imposed by the CCA and/or re-entry fees imposed by SCE.

Ordinance Authorizing Implementation of a Community Choice Aggregation Program
Before a CCA program can be implemented in a particular jurisdiction, Public Utilities Code section 366.2 requires the entity electing to implement the program to do so by adoption of an ordinance and preparation of an Implementation Plan. Adoption of the ordinance will facilitate the "Request for Proposals" process, by providing potential respondents with a clear expression of the County's interest in implementing the CCA program. If, however, after receiving the results of the Request for Proposal process the County decides not to finalize and submit the Implementation Plan to the California Public Utilities Commission for approval, the ordinance allows the County to forego further implementation efforts.

Issue Request for Proposals
Issuance of a Request for Proposals will allow the County to obtain the specific and definite pricing and other information necessary for a decision to be made by the County and potential city participants, if cities elect to participate with the County in a CCA program, about whether to implement the program. The Request for Proposals will allow a precise estimate of the actual rates for electric generation that a Community Choice Aggregation program would be able to offer its customers.

Once responses to the Request for Proposals are received and analyzed, the information obtained will allow for a more refined and exact estimate of the rates that a CCA would charge if it became operational. At that point, the Board may make a more informed decision regarding whether to join/implement a Community Choice Aggregation program. If the decision is made to have an operational Community Choice Aggregation program, the Implementation Plan would be finalized based upon information received from the Request for Proposal process and the County would enter into the power supply and other agreements necessary to implement the Program.

Impact on Residents and Businesses
The action presented would affect residents of Riverside County through possible utility rate savings by providing options in their choice of power providers and local control over electricity procurement.

SUPPLEMENTAL:
Additional Fiscal Information
N/A

Contract History and Price Reasonableness
N/A

GoodEnergy

A Smarter Way To Buy Energy

Prepared by: **Good Energy, L.P.**

CCA Feasibility Study – Initial Economic Analysis Report

Friday, May 20, 2016

Revised Tuesday, June 7, 2016

Presented to: County of Riverside, California

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GoodEnergy
A Smarter Way to Buy Energy

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GLOSSARY

Ancillary Services—charges associated with balancing and managing regional system load

CAISO—the California Independent System Operator, the entity which maintains transmission grid operations for system reliability and coordination of electric generation dispatch.

CCA – Community Choice Aggregation as enabled by California A.B. 117

CPUC—California Public Utility Commission. The state agency which governs, among other items, electric utilities and administers regulations

CRS—Customer Responsibility Surcharge, the charge imposed by Southern California Edison on accounts participating in a CCA

DA—Direct Access customers, the estimated 17% of statewide electric load that was permitted to select an Electric Service Provider before customer choice was halted.

Domestic—the rate class associated with residential electric accounts.

Energy—the wholesale cost of electricity itself, driven primarily by the cost of fuel. It is adjusted by the Load-Following premium and Basis from its wholesale cost to establish a weighted energy price.

ESP—Electric Service Supplier. An electric supplier that a customer contracts with directly (through Direct Access) for the electric supply portion of the local utility's services. Prices contract terms are negotiated and not subject to CPUC approval.

KW—kilowatt, the unit of measure for the amount of electricity required by the account during a single moment. Typically used to determine the greatest period of electricity demand for commercial accounts.

KWh—kilowatt-hour, the unit of measure for an account's usage and billing indicating the volume of energy consumed.

Load-factor—the relationship between the volume of energy used in a month and the maximum demand of an electric account.

PCIA—Power Cost Indifference Amount the charge levied to CCA participants to offset the settlement costs of SCE's forward power purchases.

Rate Class—the published schedule of charges applicable to customers within a defined user group (i.e. small commercial)

RA—Resource Adequacy, or costs associated with keeping generation available for system reliability to meet monthly demand.

REC—Renewable Energy Credits, or the costs for certificates purchased from renewable generators required to comply with California state-required renewable energy standards.

SCE—Southern California Edison, the local utility

Transmission—charges associated with reserving capacity on high voltage transmission lines operated by California Independent System Operator (CAISO)

COUNTY OF RIVERSIDE, CALIFORNIA
Initial Economic Analysis

OVERVIEW

Purpose of the Study

The study is designed to conduct a community-wide review of electricity usage, the costs that ratepayers, on average, pay Southern California Edison (SCE) for electric supply and a comparison to estimated market costs under a fully-implemented Community Choice Aggregation (CCA) program as authorized by the California Legislature under A.B. 117.

As background, in 1994, the California Legislature passed Assembly Concurrent Resolution No. 143 (Resolution Chapter 148) of the Statutes of 1994 authorizing certain customers within the state's investor-owned utility jurisdictions to select an alternative electric service provider (ESP). As open-access to select an ESP was being phased in, an electricity crisis plagued the state during 2000-2001 which caused the Legislature to halt any additional customer choice. Customers who had already chosen an ESP, estimated to be 17% of the state's eligible customer load however, were allowed to continue under this format, effectively creating winners and losers in electricity costs within any given community. In 2002, the Legislature subsequently enacted Assembly Bill 117, which authorized local governments to implement CCA programs through which to manage their electric supply on a community level, providing equal opportunity to all eligible customers within their jurisdiction.

The foundation to an effective CCA program is to assess the fundamental economic value-proposition offered by CCA on a community-wide basis. This preliminary assessment is designed to gauge the scope of savings opportunity in unincorporated Riverside County for eligible electric accounts. The scope of accounts and usage examined in this study is limited to the largest classes of electric consumers: Domestic, GS-1, GS-2, GS-3 and TOU-8(SEC) rate schedules. The assumptions used to establish market pricing are intentionally conservative and reflect current market and regulatory conditions. It is likely a fully-functional CCA which employs competitive procurement techniques can result in more competitive prices and greater savings for participants.

As discussed below, our assessment identifies the estimated savings opportunities for the county's electric consumers to save money on electric supply compared to the equivalent SCE generation charges. It also estimates which types of accounts have the greatest savings opportunities. This detailed segmentation allows Riverside County to develop its CCA program in stages, focusing on the segments representing the greatest magnitude of savings first and phasing in additional participants thereafter.

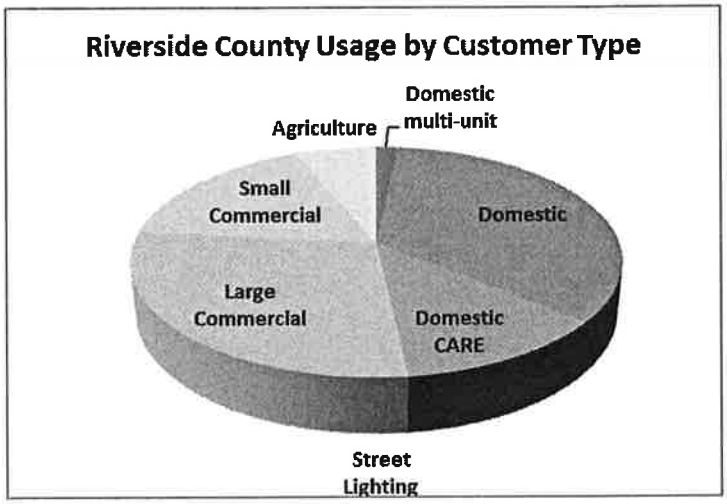
Scope

This study encompasses an analysis of the electric usage for selected eligible customer accounts within the corporate limits of Riverside County. Good Energy was granted agency by Riverside County to receive and review summary electric usage data from SCE. The summary data includes total usage for each applicable utility rate schedule for the calendar years 2014 and 2015. A review of this data shows no material difference between the usage patterns of the two calendar years (i.e., no variation in usage patterns between the two years which would render different market costs), so a single calendar year was used in the analysis.

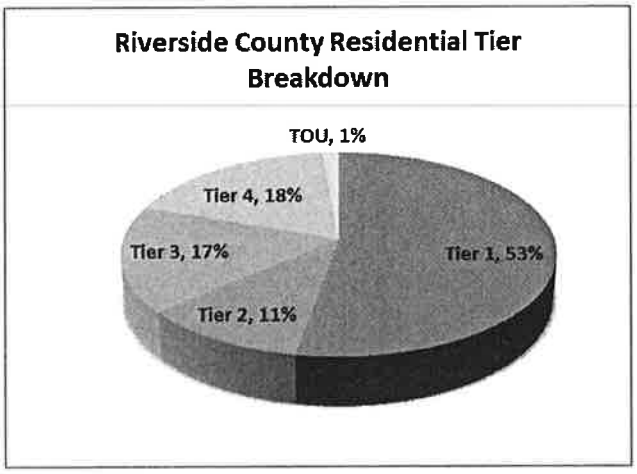
The economic analysis is limited to the electricity supply portion of SCE's bill, referred to as the "Generation Charge". SCE's charges for distribution and metering of each account are non-bypassable under CCA rules. Customers pay the same rates for electric distribution, whether on SCE supply or a CCA program.

The table below illustrates the volumetric distribution of electric usage among the applicable customer types in the unincorporated regions of the county:

RATE GROUP	%
Domestic multi	2%
Domestic single	34%
Domestic CARE	12%
Street Lighting	0%
Large Commercial	28%
Small Commercial	17%
Agriculture	6%



The *Domestic* customers represent residential electric accounts. Domestic-CARE customers receive a subsidy on the delivery services portion of the bill rather than the generation portion, all Domestic rate groups were combined in this analysis for assessment of market opportunity.



The average usage per account in Riverside County's Domestic accounts is among the highest in the SCE territory. The savings opportunities presented by a CCA are magnified particularly for the Domestic rate class.

Large Commercial customers represent SCE's rate schedule TOU-8 SEC. This schedule applies to all customers whose monthly maximum demand has exceeded 500 kW in any three months during the preceding 12 months. These are typically the largest electric consumers. Market costs for these users will vary according to the individual account's usage pattern, which can vary widely. A detailed review of representative TOU-8 usage patterns appears in the Economic Analysis section.

The *Small Commercial* group consists of SCE rate schedules:

- GS-1—Non-domestic accounts with annual peak demands of less than 20kW
- GS-2—Accounts with annual peak demands of 20kW to 200kW (i.e., small commercial office building, convenience store)
- GS-3—Accounts 200-500 kW (i.e., large department store, light manufacturing, warehouse)

These schedules were analyzed separately, but combined in cases where the difference in usage patterns resulted in no material variation in market prices.

Street Lighting and Agriculture accounts represent a small percentage of the electric usage overall. Since the resulting market analysis for these accounts will not have a material impact on the community-wide opportunity, they were excluded from the study, but will be included in subsequent phases of program development should the county move forward with CCA.

The rate classes studied are the primary drivers of the economic opportunity. If Riverside County approves additional phases of CCA development, Good Energy will conduct a comprehensive analysis of all applicable rates, with the likely result increasing estimated savings.

Results Overview

The results of the initial economic analysis are encouraging for the establishment of a CCA in Riverside County. Overall, the study indicates savings for Domestic accounts and for significant segments of commercial customers within the county. The community-wide savings that can be achieved are in the range of $7.75 million annually.

Rate Class	Payment($)	Positive Savings ($)	Positive Savings (%)
Domestic	$69,313,070	$6,193,717	8.94%
TOU-GS-1	$5,381,160	$701,893	13.04%
TOU-GS-2	$4,199,457	$294,913	7.02%
TOU-GS-3	$1,281,563	$128,446	10.02%
TOU-8-SEC	$4,570,518	$426,682	9.34%
Totals	**$84,745,768**	**$7,745,651**	**9.14%**

This estimate of potential community-wide savings should be used to gauge the magnitude of the economic opportunity for participating accounts when compared to current SCE electric supply rates. This estimate necessarily includes several caveats which are discussed in more detail in the Economic Analysis section. Initial results, however, provide promise that significant economic opportunity exists to continue development of a CCA program for the eligible participants in Riverside County.

Overall, the Domestic and GS-1 (small commercial) rate classes demonstrate consistent market savings when compared to the corresponding SCE generation charges. However, the larger commercial classes represent a mixed bag of savings for some customers, while others may achieve a lower rate by remaining on the utility supply. This is examined in detail on page 13. Good Energy recommends that a CCA program include a detailed evaluation of commercial customers' load patterns to determine the most economic option.

ECONOMIC ANALYSIS

The following sections provide additional detail on each rate schedule analyzed for this project. In each case, a number of factors and assumptions contribute to the overall results discussed below.

Also important to note: a CCA's rates are not required to conform to the same structure as the utility. All of the analyses for this report have been developed in comparison to the corresponding utility rate schedule. Good Energy proposes, however, that an ensuing CCA should have its own rate structure which accurately reflects wholesale market prices and maximizes potential savings for participants.

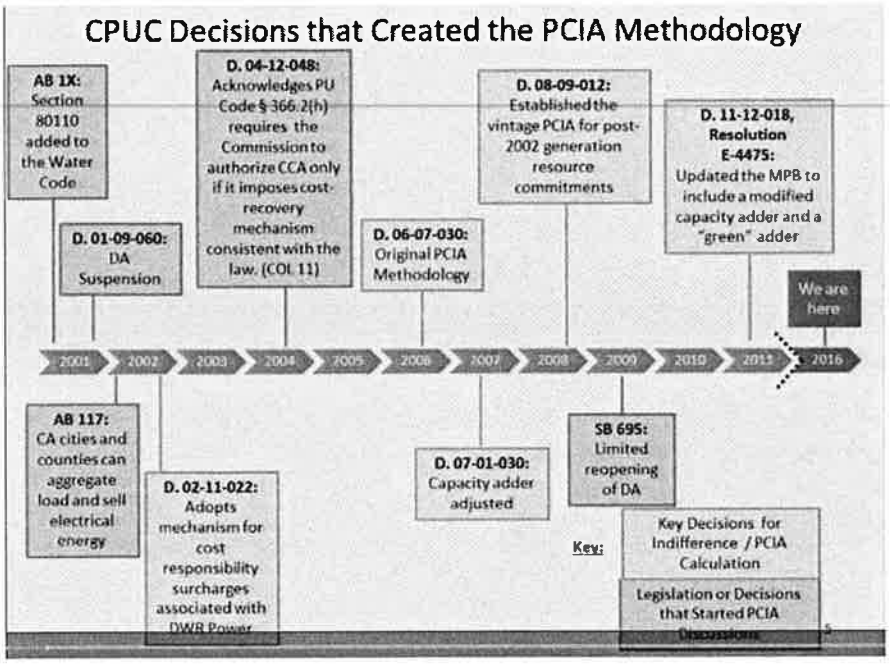
Key Factors Affecting Savings

- Market Prices—the market price of electricity and resource adequacy represents the single most significant determinant of cost. Market prices have proven to be volatile over time, so fixing the cost for a significant period of time (e.g., 2-5 years) provides a hedge against this volatility. Forward electric prices change daily and reflect seasonal differences. The costs used in this analysis are indicative of prices at the time of publication and are subject to change.

- Customer Usage Patterns—customer usage, both the volume and the profile (i.e., during which hours, days of the month) impact the overall price.

- Utility CRS Charges—a major factor in the savings estimate is the imposition of the Customer Responsibility Surcharge, which is determined by SCE prior to the implementation of the CCA program. Our analysis has accounted for the CRS charges in all estimates using the current published SCE CRS rates. Since such charges are reset periodically, the actual rate of savings will be determined once CRS is established and then annually, thereafter.

  Important note: the largest component of the CRS charge, the Power Cost Indifference Amount (PCIA), is expected to decline as SCE's prior power purchases converge to market costs. The PCIA is currently receiving significant scrutiny by the California Public Utilities Commission and various intervenors in utility rate cases. For example, in SCE's most recent rate forecast (CPUC Case 15-05-007, CPUC Decision 15-12-033 December 17, 2015) numerous parties submitted testimony calling for more transparency in the PCIA's annual calculation. Specifically, some CCAs have challenged the methodology and transparency of data inputs. As a result, the CPUC conducted a workshop addressing concerns over the PCIA in March, 2016. This signals an ongoing movement to create more transparency and predictability surrounding PCIA costs for communities considering development of a CCA program. The estimates in this report include the current SCE published PCIA values.



- Opt-Out Rate—the number and type of customers participating in the program have an impact on the prices which can be negotiated in the market. This analysis has not included an assumed opt-out rate. California and national statistics have demonstrated typical opt-out rates in the single digits.

- Regulatory Changes—the analyses in this study are based upon the applicable laws and regulation in place at the time of preparation; changes may increase or decrease savings opportunities.

- Administrative and Start-up Costs—this analysis is limited to an estimate of the market charges compared to the corresponding SCE generation charges. A fully-developed CCA design and implementation plan will account for administrative costs, which are not included in this analysis. Good Energy's has observed that existing CCAs in California have borne significant administrative costs which are not typical in markets where local government aggregations are common. We are confident that by adopting best-in-class practices for program design and operation, such costs can be reduced measurably when compared to existing California CCA programs.

Savings Summary—Domestic Customer Accounts

The following table summarizes the number of accounts in the two primary customer rate schedules: Domestic (single and multi-unit) and the Domestic CARE accounts. The CARE subsidy is applied on the delivery services segment of the SCE bill, and is not expected to impact the potential for savings these customers can achieve through a CCA.

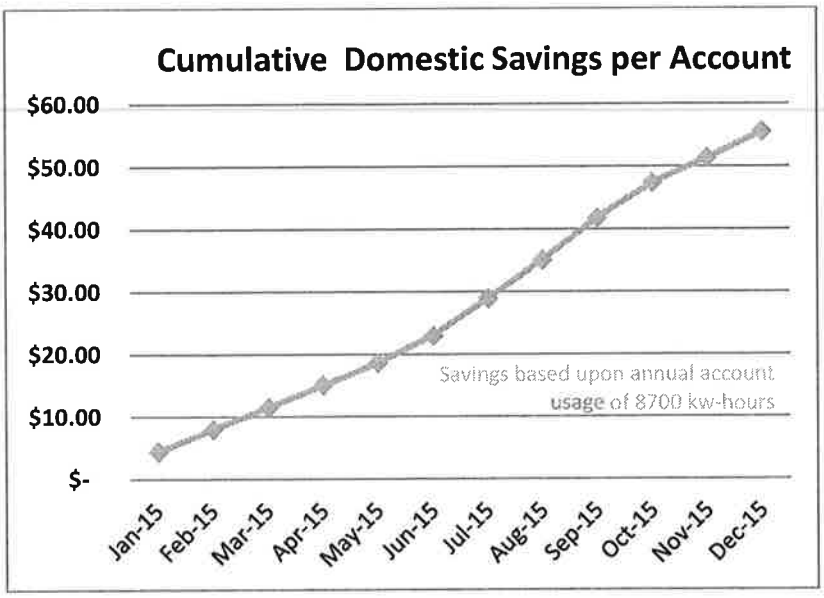
RATE GROUP	# Accounts	Total Usage	Usage/Acct	Est Annual Savings	Annual Svgs/Acct
Domestic multi-unit	162	34,549,419	213,818	$ 212,478.93	$ 1,314.98
Domestic-single	80,704	716,442,453	8,877	$ 4,406,121.09	$ 54.60
Domestic CARE	30,666	255,441,555	8,330	$ 1,570,965.56	$ 51.23
Totals	**111,532**	**1,006,433,427**	**8,727**	**$ 6,189,565.58**	**$ 55.50**

The Domestic class of customer represents the majority of the accounts in Riverside County, representing 91% of the total accounts, and 48% of the total electricity usage. This is where preliminary estimates demonstrate the greatest savings. Although each customer's savings experience will vary with the individual usage pattern, the application of a single load profile across the entire class provides a greater level of certainty regarding savings. In such classes, the "load factor effect" (discussed above) is not applicable as all accounts are assumed to have the same usage profile While more investigation and analysis is required to fully flesh out the details of a CCA program, this study indicates the greatest opportunity lies in the residential accounts and should receive the highest priority in the deployment of Riverside County's program.

The graph illustrates how savings are accumulated each month based upon total participation and historical volumes of the residential accounts in Riverside County.

In addition, two sensitivity cases have been included in the analysis, one at 80% of estimated savings baseline, and one at 120%. This illustrates that with variables that reduce or increase the baseline savings estimate, the total savings potential is still significant. Even when reducing the baseline savings estimate, the annual community-wide savings exceeds $5 million for residential customers as a whole.

If factors such as lower market prices, resource adequacy costs or utility CRS charges combine to deliver increased savings to 120% of the baseline estimate, the community-wide total exceeds $7 million annually. Application of these simple stress factors provides additional confidence that a CCA program in Riverside County could deliver consistent savings and price stability to its residential customers.



Savings Summary—Commercial Classes

Demand-metered vs. Scalar-metered accounts

SCE Domestic rates do not depend on individual account metered demand. While SCE is in a multi-year program to install so-called "smart" meters for all its accounts which would, among other data points, record each home's individual peak demand, the rate structure currently applied is *scalar*. A scalar rate structure applies a single load profile to all the accounts and uses the overall load profile of the entire class for bill calculations. In this structure, the volume of electricity used per month is the primary bill determinant.

Commercial accounts, however, do record each account's individual demand and use this data to establish a monthly peak demand. The monthly peak demand is used as one of the bill determinants. Specifically, the commercial general service (GS 1-3) and time-of-use (TOU) classes have a rate structure where the amount of monthly peak demand sets one component of the bill and the volume of electricity consumed sets another portion. As a result, accounts with a higher load factor (accounts which use a larger proportion of electricity relative to the monthly peak demand) pay a lower effective rate per kilowatt-hour. In essence, the utility rate structure rewards a higher load factor with a lower rate.

For this reason, calculating a rate class-average savings estimate is more complex. Some customers, by virtue of their load profiles, will achieve clear savings under the market pricing of a CCA program. Other customers, by the same token will be better off remaining on the utility rate structure.

Impact of Resource Adequacy

The demand-determined component of the bill is primarily the cost of *resource adequacy* (RA), which reflects the cost of reserving enough generation capacity on the electric grid to satisfy peak electric demand each month. Unlike electric energy which is transacted daily and hourly throughout the California electric grid, RA is transacted in "odd lots" at comparatively infrequent intervals. The cost of generating capacity to satisfy RA requirements is less transparent than the electricity component. For this reason, this analysis has erred on the side of being conservative when applying market RA costs. It is very likely we have understated the savings potential by assuming RA costs on the higher end of the range. However, since this is an early evaluation, we feel this is the best approach. During subsequent phases, Good Energy can refine these estimates to narrow the range of variability in savings estimates.

To develop a reasonable savings analysis, Good Energy has prepared estimates for all the accounts in rate classes GS-2, GS-3 and TOU-8. Customer accounts in these rate schedules represent the majority of the non-residential electric consumption in Riverside County.

The tables below illustrate two approaches to savings estimates for the commercial classes. The first evaluates all the account data provided by SCE, which renders a small overall savings percentage. The second table summarizes only the positive-savings accounts, whereby the negative savings accounts (which are estimated to get a lower price by staying on the SCE tariff) are removed. This results in a greater percentage of savings for this sub-set.

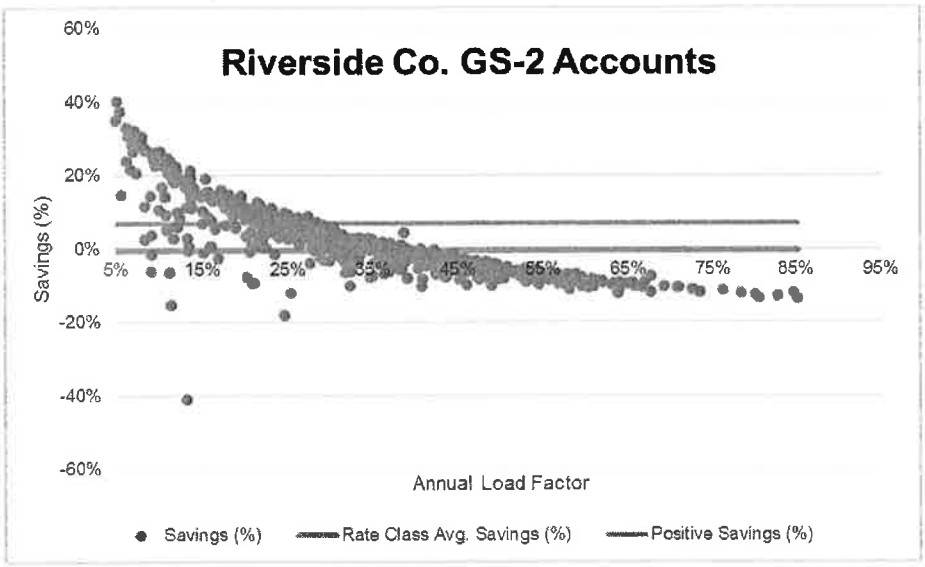
All Commercial Accounts Studied				
	Volume (kWh)	Payment($)	Savings ($)	Savings (%)
TOU-GS-1	77,151,198	$5,381,160	$701,893	13.04%
TOU-GS-2	166,829,599	$10,215,415	-$48,145	-0.47%
TOU-GS-3	110,946,611	$6,431,343	-$294,734	-4.58%
TOU-8-SEC	178,128,675	$10,847,231	$99,160	0.91%
Totals	**533,056,083**	**$32,875,149**	**$458,174**	**1.39%**

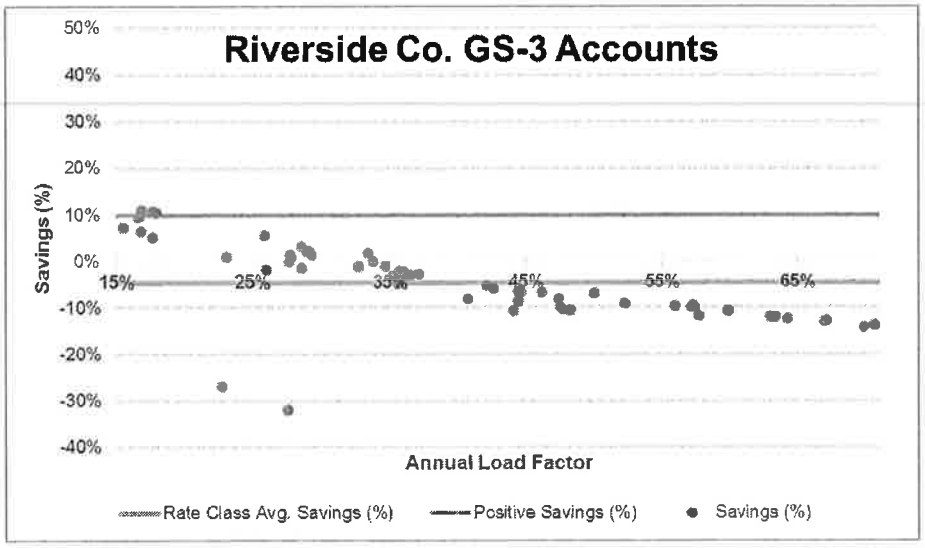
Commercial Accounts with Savings			
	Payment($)	Positive Savings ($)	Positive Savings (%)
TOU-GS-1	$5,381,160	$701,893	13.04%
TOU-GS-2	$4,199,457	$294,913	7.02%
TOU-GS-3	$1,281,563	$128,446	10.02%
TOU-8-SEC	$4,570,518	$426,682	9.34%
Totals	**$15,432,698**	**$1,551,934**	**10.06%**

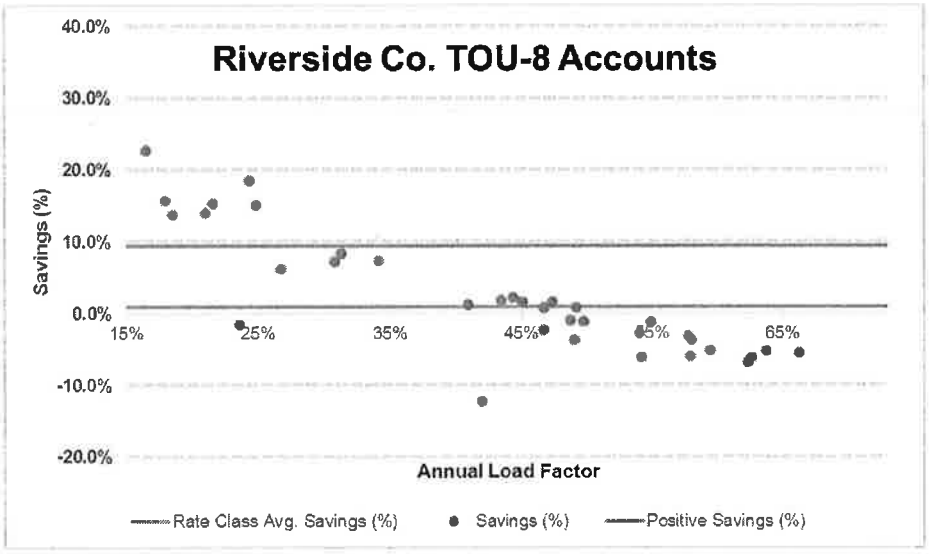
This illustrates the importance of considering each commercial customer's load profile to determine the potential for savings through participation in a CCA program. Good Energy recommends that during the program design and implementation phases, resources be included to calculate an individual account's potential for savings before entering the program. Good Energy regularly performs these analyses in its program management services. Such analyses can be web-based for small and medium commercial accounts, and individually performed by our analysts for larger and multiple-account customers.

Note that GS-1 accounts achieve savings in both scenarios. GS-1 accounts are less sensitive to load-factor calculations, and based on the assumptions in this analysis achieve consistent savings.

The scatter plot graphs below illustrate the varying rate of savings among various account types extracted from the summary data provided by SCE. As noted above, the conservative nature of the assumptions in this analysis likely understates the savings potential for these classes.





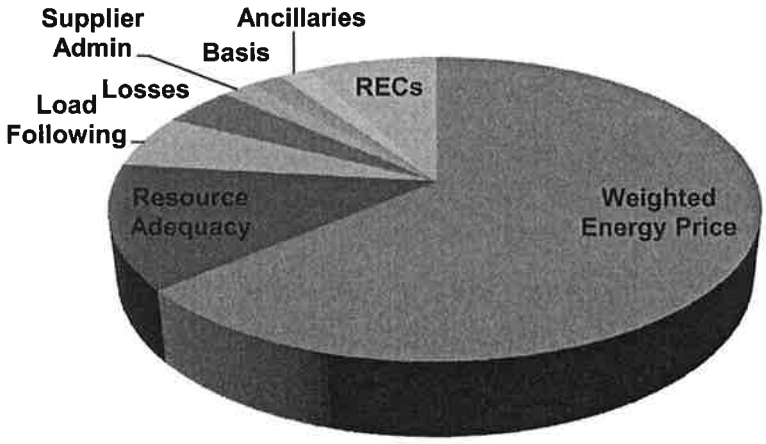


Components of the Market Cost

Market costs are built up from several components. The electric energy itself is largely set by fuel costs and supply/demand relationships. Other components, such as renewable energy credits (REC), are driven more by regulatory requirements. The graph below gives an overview of the relationship of these components.

Note that this is an example for illustration purposes only. A power contract which bundles all the components together takes into consideration the load served, obligations of the parties to the contract, regulatory requirements, in addition to customer service functions.

Such contracts are complex and unique from other commercial transactions. Good Energy has negotiated literally thousands of such contracts on behalf of our clients.



- Energy—the wholesale cost of electricity itself, driven primarily by the cost of fuel. It is adjusted by the Load-Following premium and Basis from its wholesale cost to establish a weighted energy price.
- Resource Adequacy (RA)—costs associated with keeping generation available for system reliability to meet monthly demand.
- Transmission—charges associated with reserving capacity on high voltage transmission lines operated by California Independent System Operator (CAISO)
- Ancillary Services—charges associated with balancing and managing regional system load
- Renewable Energy Credits (REC)—costs required to comply with California state-required renewable energy standards.

CCA STUDY CONSIDERATIONS

The results of the initial economic analysis demonstrate clear opportunity for developing a CCA program within the unincorporated portions of Riverside County. Moving forward with a program structured with low administrative costs allows the opportunity for individual communities to join a Riverside County-led program to achieve mutual benefit. We have listed some of these benefits below:

- Developing a county-led CCA provides resources at the regional and local levels that can operate very efficiently and without incurring significant overhead costs. Using this approach, Good Energy manages more than 200 such programs throughout the United States.

- The key to developing an effective county-wide program is for the county to establish the overall structure and demonstrate to individual communities how participation will benefit *their* constituents
- A one-size-fits-all approach does not create the local support necessary to create an effective buying consortium. For example, some communities may want to emphasize renewable sources, while others may prefer the most cost effective power supply. Good Energy manages buying consortia consisting of hundreds of communities with this flexibility. Overall, these programs have saved their constituents more than $150 million since 2012.

A county-led CCA, based upon the economics of the unincorporated area alone, has the potential to deliver significant value to the region. We look forward to meeting with your representatives to discuss the contents of this report and possible next steps for development.

Economic Development Opportunity for Riverside County

CCA opens Direct Access to all commercial and residential accounts within the municipal boundaries as delineated by SCE. Some commercial usage in Riverside County is already on Direct Access. In our estimation, the DA segment of load in the jurisdiction only encompasses a few businesses as many of the accounts are served by one Electricity Service Provider (ESP) contract. Businesses of all sizes are interested in Direct Access for the following reasons: price stability, product diversity, rate control, and the potential for enhanced renewable products. As was evidenced by the three small rounds of Direct Access lotteries a few years back, there is significant pent-up demand for utility supply choices.

The CCA provides an economic incentive for businesses to move to Riverside County. Potential power costs savings coupled with the Ontario and San Bernardino International Airports in close proximity and poised to grow significantly, Riverside County would be strategically placed to attract new businesses with its competitive utility rates and nearby airline hubs.

Launching a CCA program early in the region could provide Riverside County with a distinct economic advantage, compared to other jurisdictions. Furthermore, early implementation of a CCA program would give the county an option to act as the lead agency with other member participants paying fees to participate in Riverside County's program. The new entity would have myriad ways to provide potential revenue to defray early startup costs.

Phased-In Approaches - Sensitivity Analysis (Pre Launch)

As mentioned earlier in the economic analysis section, Good Energy recommends that during the program design and implementation phases that resources be included to calculate an individual account's potential for savings before entering the program. As positive savings for individual participants will vary greatly, it is paramount that a program

consultant conducts sensitivity analyses to determine an optimal launch schedule for all participants. There are actual account holders who do not have positive savings at this time. A phased roll out of the CCA program for eligible participants is something Good Energy has over a decade of experience conducting for communities. Good Energy regularly performs these analyses to stress test for participant inclusion before actual launch. Current CCAs in California have phased in account types at the domestic and commercial designation level. We believe that many of the commercial account rate classes, domestic classes, and direct access customers need to be phased in after careful consideration.

On-Going CCA Program Analysis

Once a program is active, Good Energy continues to provide on-going customer support. We have developed web based tools known as 'rate calculators" to automate the process for account holders seeking to understand their opportunity.

Outsourced Model

The completely outsourced Community Choice Aggregation service model is the national standard for operating CCA programs. In fact, over 95% of all programs utilize the services of a turn-key consultant for all developmental and operational aspects. However, in California, the first CCA efforts have employed community employees and a basket of subcontractors to operate CCA programs. This "cottage industry" approach has, in effect, created a mini utility with all of the inefficiencies of the investor owned utilities. Municipal staff, with little to no energy management and procurement experience, poses a risk to a CCA program and its participants.

In the fully-outsourced model, community executives still have the exclusive and final authority over procurement decisions recommended by the consultant. Consultants are incentivized to operate successful programs, as their fees are linked to the longevity and participation levels of a CCA program. Good Energy has almost a decade of experience in areas of CCA evaluation e.g., technical feasibility assessment and organization, implementation, administration and operation.

Renewable Energy & CCA

The economic analysis of renewable energies is not part of this feasibility study. As the degree of commitment to renewable energy initiatives by community can only be ascertained through goals set forth in public policy, Good Energy believes this discussion is best had upon discovery of the initial results via base rate comparisons.

The California state-mandated Renewable Portfolio Standards (RPS) is in a state of transition as the state moves to increase the required renewables from 33% to 50%. Any CCA program is bound to the same RPS compliance levels as the investor owned utility (SCE). Any CCA program launched by Riverside County will adhere to these requirements.

Building a relationship between a newly formed CCA and its participants, at the outset, is critical. Many early stage CCA programs have tried to implement too many initiatives

resulting in consumer confusion. As a program progresses, CCA may be a way for a community to meet local environmental goals through renewable generation development, renewable purchases (RECs) and demand side management through energy efficiency. Many CCAs in California and around the nation have successfully rolled out these goal-driven objectives.

Of note in southern California is the impact of the "duck curve" on hourly pricing. The phenomenon is created by the impact of solar output coupled with traditional generation resulting in an oversupply of power during the afternoon. This dip is followed by a sudden ramp up of traditional base load generation and peaker plants in the late afternoon to meet demand as the solar generation fades away. In a subsequent stage of analysis, beyond the scope of this study, Good Energy will make recommendations around rate structures designed to maximize savings during the oversupply hours of the day caused by this phenomena.

Finally, Good Energy firmly believes that the evolution of storage could significantly transform renewable effectiveness in California.

Marketing Efforts and Strategies

A comprehensive marketing plan is critical to the success of Riverside County's CCA program. Though several other states are engaged in community aggregation, CCA is in its relative infancy in California. Good Energy's client communities have experienced extraordinary results in Illinois and Massachusetts, successfully building consortia of more than 200 municipalities and counties, including over 600,000 homes combined.
Building consensus has been a hallmark of Good Energy's success since we began developing community aggregation programs, whether between municipal representatives, organizations (e.g., environmental groups) or ratepayers – the direct beneficiaries of the program. Nowhere was this more evident than in Illinois, where implementation of an aggregation program required the successful passage of a voter ballot referendum in each municipality, in effect, an "all or nothing" scenario. Consensus building required, among other things, dynamic outreach to all of the groups mentioned above, so that the goals of the CCA were effectively communicated and understood. Good Energy worked closely with municipal leaders to design the most strategic marketing efforts, in many cases, utilizing the most transparent and personable avenues available, not only to effectuate the successful passing of referendums, but also to subsequently reduce opt-out rates (approximately six percent) once the program had launched. In this way, maximum savings paired with maximum contract protections for account holders within participating communities were achieved, these savings largely being redirected back into local economies.

As mentioned above, Good Energy works closely with community leaders in building a broad approach to community awareness and education about the program. As with the majority of our program management services, our awareness and education strategies are developed IN-HOUSE, in coordination with community representatives.

Examples include the following:

1. USPS Mail Campaigns
2. Local Radio/TV Spots
3. Web-based Infomercials
4. Local Cinema Screen Advertisements
5. Newspaper Interviews and Advertisements
6. Municipal Newsletters
7. Voluntary Municipal Polls – using the Riverside County municipal website, mail drop-off or dedicated call-in telephone number to host an informal poll of residents
8. Development and Online Hosting of Dedicated Online Sites
    a. Illinois: www.munienergychoice.com - this site has since been integrated into http://goodenergy.com/Community-Energy-Aggregation/illinois
    b. New Jersey: www.NJGEA.com – this site has since been integrated into http://goodenergy.com/Community-Energy-Aggregation/new-jersey
    c. Massachusetts: http://masscea.com/ and http://goodenergy.com/Community-Energy-Aggregation/massachusetts (integration in progress)
9. Social Media – Facebook, Twitter
10. Dedicated 24/7 Call Center
11. Billboard Signage
12. Informational Flyers and Palm Cards
13. Public Hearings
14. Community Meetings, both government and organization-hosted, i.e., Chambers of Commerce, Rotary Clubs, Churches, Environmental Groups, Senior and Age-Restricted communities, etc.

Examples of these various strategies are included on the following pages.

Each region has unique characteristics and trends that must be considered when an outreach campaign is developed. For instance, Good Energy has come to understand, via its Illinois experience, that seniors and residents of age-restricted communities are among the most engaged constituents in their communities. Good Energy regularly presents at age-restricted communities not only to educate residents, but as a *de facto* form of consumer protection. A transparent approach is the most effective in explaining all aspects of the program, no matter the size of the audience. Indeed, Good Energy's experience in the utility industry has frequently resulted in the firm being able to secure utility support during public meetings. In Massachusetts, 24 municipalities, represented by 35 different representatives were queried on a bi-weekly basis for several months to better understand the population characteristics of the different participating cities and towns, and how to best build an outreach program. Two interesting observations about the market came to light - the regional country music station had the highest listenership in the area overall, making this an unexpected outlet for 5, 10, and 30 second CCA advertisements, and secondly, certain partner communities had substantial foreign language speaking constituencies, particularly Portuguese. Nevertheless, no less than six foreign language speaking segments of the

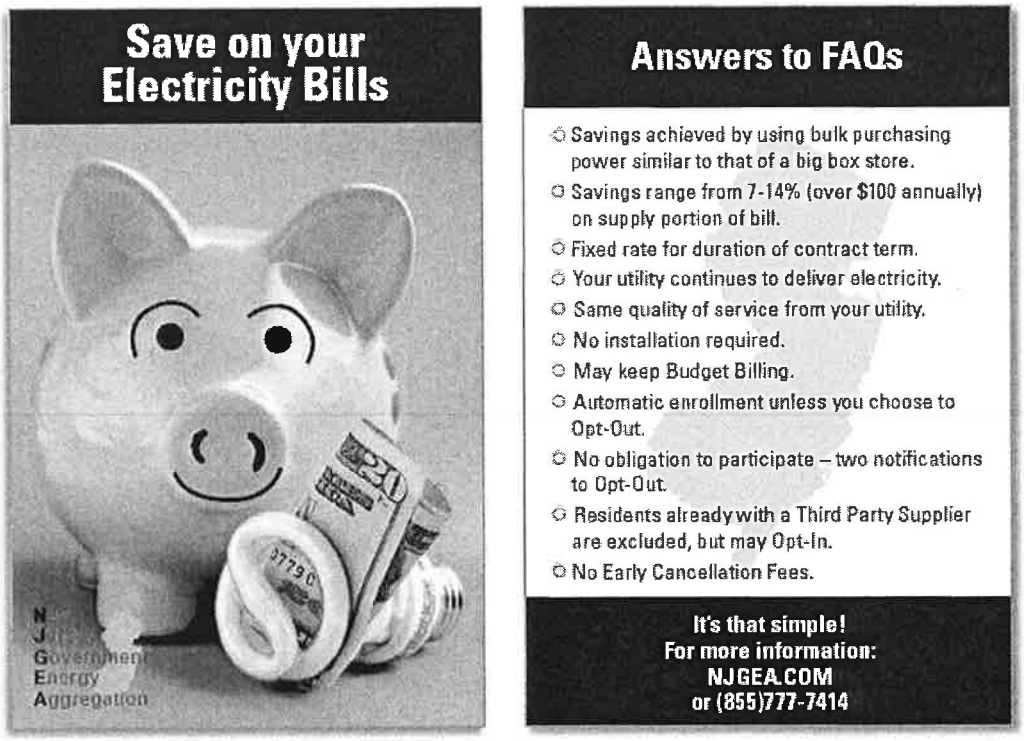
population were identified as having significant presence. The broadest inclusion for all segments of the population, specifically those who were non-native English-speaking, was of paramount importance. Consequently, Good Energy had the vast majority of our awareness campaign materials professionally translated and/or subtitled for each of the six languages. This included our informational video, as well as numerous radio spots on foreign language stations.

Good Energy has learned that marketing campaigns, in one form or another, do not end once a program has fully launched. Participants need to be periodically reminded via media press releases, municipally-hosted website pages, as well as Good Energy's own dedicated online site and social media pages, about the status of the value it provides to the participants and the community.

APPENDIX – MARKETING EXAMPLES

PALM CARDS - FAQs

Serve as convenient handouts for the public and as a quick reference for municipal representatives

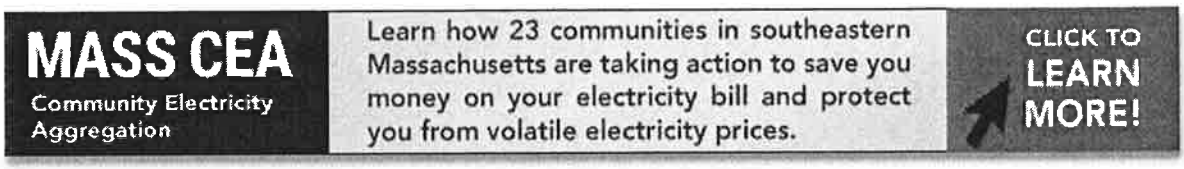


GoodEnergy
A Smarter Way to Buy Energy

FLYER (2-sided) – PROGRAM OVERVIEW TRANSLATED INTO SIX LANGUAGES, MASSACHUSETTS

GoodEnergy
A Smarter Way to Buy Energy

DIGITAL AD – REDIRECTS TO PROGRAM WEBPAGE



RADIO ADS

ILLINOIS

Good Energy October 2012 Vote_mixdown (3).mp3

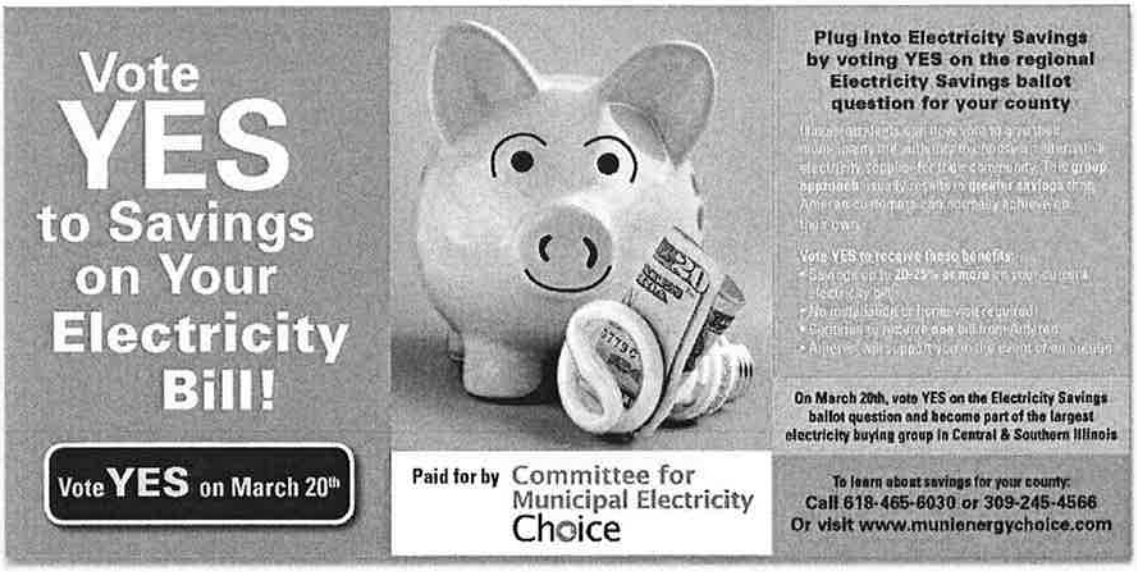
MASSACHUSETTS – 15 & 30 SEC, PORTUGUESE

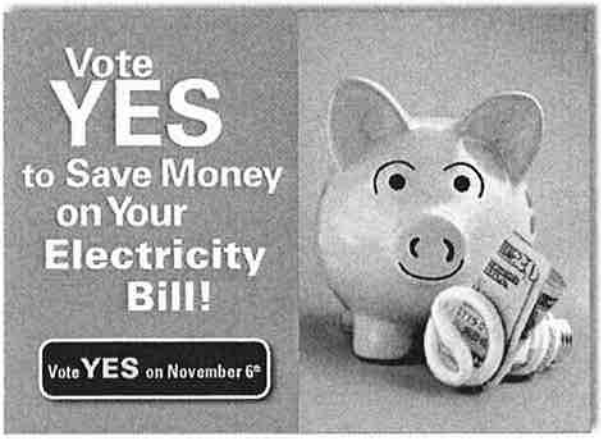
GoodEnergy_15_102615 (1).mp3

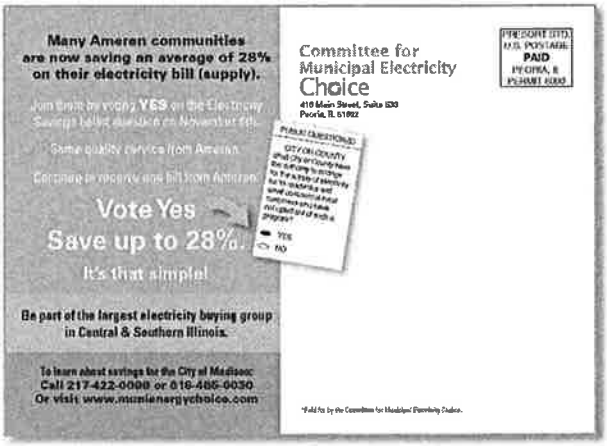
GOOD ENERGY - HIGH ELECTRICITY - 102715.mp3

GOOD ENERGY 30s (1).mp3

PRINT AD AND POSTCARDS (pre-referendum), ILLINOIS







GoodEnergy
A Smarter Way to Buy Energy

GOOD ENERGY DEDICATED CALIFORNIA CCA WEBPAGE

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A Smarter Way to Buy Energy

GOOD ENERGY DEDICATED MASSACHUSETTS CCA WEBPAGE FOR 23 MUNICIPALITIES AGGREGATED UNDER SOUTHEAST REGIONAL PLANNING & ECONOMIC DEVELOPMENT DISTRICT (SRPEDD)

MASS CEA
Community Electricity Aggregation

Home
Participating Communities
How do I join the program?
How do I leave the program?
Have you received multiple opt-out letters?
Opt-Out Period
Savings Calculator
Frequently Asked Questions
Contact

Participating Communities

Attleboro	Douglas	Mattapoisett	Seekonk
Acushnet	Dracut	New Bedford	Somerset
Carver	Fairhaven	Northbridge	Swansea
Dartmouth	Fall River	Norton	Westford
Dedham	Freetown	Plainville	Westport
Dighton	Marion	Rehoboth	

The Cities and Towns listed above are participating in the Southeast Regional Planning and Economic Development District (SRPEDD) Community Electricity Aggregation Program. The program was formed to leverage bulk purchasing power by creating a large buying group with the goal of purchasing electricity at a better rate and preferential terms than currently available through default service.

Any business or household that currently purchases electricity from the default Basic Service of either Eversource or National Grid will automatically be included in the program. **If you are currently enrolled in National Grid's Green Up Program you will NOT be enrolled automatically and must contact the supplier, Con Ed Solutions, at 855-788-9885 to enroll.**

To understand how the program will work feel free to explore the FAQ section

INFORMATIONAL VIDEO TRANSLATED INTO SIX LANGUAGES, MASSACHUSETTS

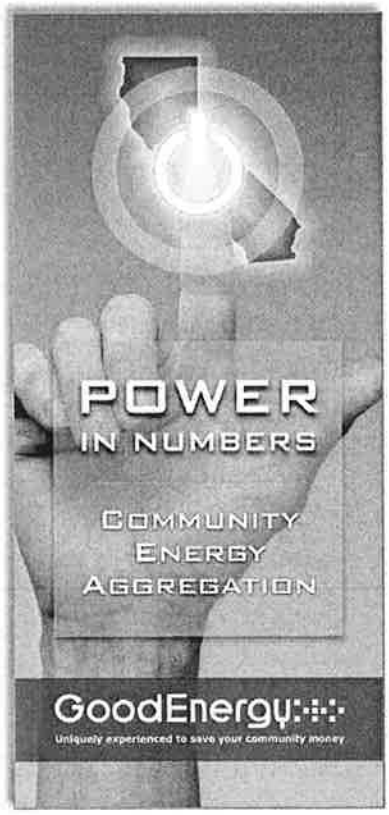
HYPERLINKS

- MASSCEA - Community Electricity Aggregation Information (Arabic)
- MASSCEA - Community Electricity Aggregation Information (English)
- MASSCEA - Community Electricity Aggregation Information (French)
- MASSCEA - Community Electricity Aggregation Information (Khmer)
- MASSCEA - Community Electricity Aggregation Information (Portuguese)
- MASSCEA - Community Electricity Aggregation Information (Spanish)
- MASSCEA - Community Electricity Aggregation Information (Vietnamese)

BILLBOARD SAMPLES - ILLINOIS

GoodEnergy
A Smarter Way to Buy Energy

FLYER (2-sided) – PROGRAM OVERVIEW



Community Energy Aggregation, "CEA", (or Community Choice Aggregation as it is known in California), began in 2002 with the passage of California AB 117. CEA empowers local governments to create large electricity buying groups in pursuit of cheaper and more stable energy supply rates. Hugely successful in other states, savings are achieved by leveraging the bulk purchasing power of thousands of households. CEA programs provide for local control of rates resulting in significantly reduced energy supply costs for ratepayers. CEA also allows for increased renewable energy options.

Managing more CEA programs than any other energy management firm, Good Energy uses its national experience to design and implement the most successful turnkey CEA programs.

Program Benefits

- Rate stability for the duration of the contract term
- Utility continues to deliver the power
- Same quality of service from the utility
- Enrollment is automatic unless customer opts-out
- No obligation to participate
- No early cancellation fees

About Good Energy

Good Energy, L.P. is an energy management and consulting firm working in all deregulated energy markets nationally on behalf of public and private clients, and is the industry leader in CEA program design and implementation. Working collaboratively with communities and energy buying groups of all sizes, Good Energy applies innovative, out-of-the-box thinking to build turnkey aggregation programs and procurement strategies that optimize end-user savings and security for the long term.

To learn more contact Good Energy:
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goodenergy.com/ca

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