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# Santa Barbara County

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## Municipal Energy Financing District

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### Feasibility Study

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**Prepared for:**

Santa Barbara County Board of Supervisors and Debt Advisory Committee

**Prepared by:**

Santa Barbara County AB 811 Project Team

**Project Team Members:**

David Matson, Housing and Community Development  
Chris Rich, Long Range Planning  
Angie Hacker, Housing and Community Development  
Mark Paul, Auditor-Controller  
Stacy Matson, Treasurer/Tax Collector  
Anne Rierson, Deputy County Counsel (Legal Advisor)  
Bob Nisbet, General Services

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# Executive Summary

Buildings account for 72 percent of electricity use and over 36 percent of greenhouse gas emissions.<sup>1</sup> Accordingly, buildings are a key focal point of the national policy strategy to simultaneously stimulate economic recovery and incentivize energy savings across communities. Since buildings have useful lives that span many decades, a high-percentage of existing energy-intensive building stock will continue to operate for the foreseeable future. The building improvements capable of effectively reducing, or offsetting energy demand, carry high upfront costs that are discouraging, and often prohibitive, to most property owners. Consequently, new programmatic strategies are needed to help property owners proactively reduce energy consumption and demand in existing buildings.

For local governments in California, a municipal energy finance district, pursuant to Assembly Bill (AB) 811, is one way for a city or county to provide property owners with access to capital for residential and commercial clean energy projects. Simultaneously, municipal energy finance districts provide an opportunity to address climate change and strengthen the local economy by adding jobs related to energy efficiency retrofitting and solar installation, while also providing a host of co-benefits that can improve the relative quality of life of local residents. These co-benefits include smaller energy and water bills, and improved indoor comfort. Additionally, these programs offer property owners a convenient, complimentary financing option which can increase home equity.

In June, a project team consisting of Santa Barbara County staff was directed by the Board of Supervisors to conduct a study to examine the feasibility of a County municipal energy finance program. Feasibility has been defined as the ability for the program to achieve desired outcomes, while paying for itself over time, thereby ensuring minimal impacts to other County programs. Based on extensive analysis provided in this report, the project team has concluded that financially feasible options exist to establish a municipal energy finance district. Within that context, feasibility is influenced by the ability to develop solutions, mitigate risks, and enhance the benefits associated with four topic areas evaluated in this report. These include:

- 1) **Market Feasibility:** Given the program scale, can local demand and available workforce support the necessary volume of contractual assessments?  
Conclusion: Yes, many indicators show that demand will be high and the workforce is prepared.
- 2) **Program Feasibility:** Can the County design and administer an effective regional program?  
Conclusion: Yes, particularly if start up funding is obtained to cover start-up costs and program administration needs.
- 3) **Financial Feasibility:** Can the program become self sustaining and minimize financial risk to the County?  
Conclusion: Yes, if interim and long-term financing sources are made available.
- 4) **Legal Feasibility:** Will the program overcome legal hurdles?  
Conclusion: Yes, the County expects to be successful in receiving judicial validation.

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<sup>1</sup> “Guide to Energy Efficiency & Renewable Energy Financing Districts For Local Governments” prepared by University of California, Berkeley.

Based on the findings of this report, the project team recommends the Board of Supervisors to use the following approach for implementing a municipal energy finance district:

- Direct staff to design a regional program, called the Central Coast Energy Independence Program (CCEIP), to be housed under the County Housing and Community Development Department and include all interested incorporated cities.
- Provide a short-term General Fund advance receivable for approximately \$1 million to address initial cash-flow and ARRA grant reimbursement requirements for start up and operating costs, including:
  - An agreement with Bond Counsel to establish formal program documentation, including resolutions, contracts, financial instruments, and judicial validation documents.
  - Initially four full-time program staff with specialized lending knowledge to service up to 400 funded contracts per year in the initial launch phase.
  - A loss reserve fund to preserve programmatic integrity and risk mitigation options.
  - Marketing and advertising materials, including a strong internet presence.
  - Rent and overhead for storefronts in the northern and southern regions of the County.
- The use of resources from assessment district notes or bonds sold to the County Treasurer’s Investment Pool, to fund interim contractual assessments with property owners.
- The use of long-term financing in the form of bonds, which would be used to pay off the assessment district notes with the County Treasurer’s Investment Pool, and are necessary for program sustainability.
- Implementation of specific risk mitigation strategies that would preserve program integrity, while simultaneously protecting County financial resources.

These recommendations establish a baseline of feasibility, given current information. The study illuminates how municipal energy finance districts provide a new community and economic development tool for local jurisdictions. Given the associated co-benefits described in this study, it is not surprising that these programs are garnering significant interest from state and federal policy makers. Accordingly, if directed to move forward, staff will continue to explore cutting edge best-practices to adapt to an evolving policy environment and further mitigate associated risks.

# 1. Introduction

This report provides an assessment of the market, programmatic, financial, and legal feasibility of establishing a municipal energy financing district, coupled with a business model for program implementation.

On July 21, 2008, California enacted Assembly Bill (AB) 811, authorizing the establishment of contractual assessment programs to finance the installation of solar photovoltaic panels and energy efficiency upgrades that are permanently affixed to real property. Under this program, voluntary participants can install a wide variety of approved improvements and finance those improvements over time through a supplemental assessment on their property tax bill.

At the request of the County Executive Office, staff began due diligence into the development of a municipal energy finance district in Santa Barbara County in late 2008. Given the early success of local government leaders in the City of Palm Desert and Sonoma County, it became clear that a municipal energy finance program had the potential to create a host of beneficial outcomes if implemented in Santa Barbara County. Those benefits include reductions in greenhouse gas (GHG) emissions, local economic stimulus and job creation and quality of life improvements for residents such as improved indoor comfort, increased home equity, and smaller energy and water bills.

On June 23, 2009, the County Board of Supervisors (Board) voted 5-0 to direct staff to formally study the feasibility of implementing a municipal energy finance district. Soon thereafter, on July 30, 2009, staff presented a status report to the Debt Advisory Committee (DAC), and was directed to continue work on a feasibility analysis and to return on September 21, 2009 with an interim report on financial and legal options, as well as draft program design. This September report concluded that feasible options for implementation do exist. Accordingly, staff was directed to return with a complete feasibility study as well as a draft business plan for a “Central Coast Energy Independence Program” on November 9, 2009, after which the DAC’s recommendation will be forwarded to the Board for a decision on December 1, 2009, as to whether the program implementation should be initiated.

This final feasibility report is the result of a collaboration of County staff consisting of representatives from the Auditor/Controller, Treasurer/Tax Collector, County Counsel, Housing and Community Development, General Services and Long Range Planning. Over the course of several months, this “project team” leveraged a wide cross-section of skills and experience to focus on market, programmatic, financial, and legal issues and successfully engaged a wide range of community input and expert advice.

Feasibility is defined as the ability for the program to achieve desired outcomes, while paying for itself over time, thereby ensuring minimal impacts to other County programs or financial condition. Program feasibility is contingent upon several factors, as demonstrated in the sections that follow, which: 1) provide background and context, 2) illustrate the elements of regional demand for solar and energy efficiency improvements, 3) review successful programmatic design options and related costs, 4) evaluate interim and long term financing options, 5) discuss legal considerations, with consideration given to pending legislation, 6) illustrate additional property owner and community wide benefits associated with program implementation, and 7) summarize the report’s conclusions coupled with suggested next steps.





## 2. Background

### What is AB 811?

On July 21, 2008, California enacted Assembly Bill (AB) 811, a law enabling cities and counties to set up local finance programs to incentivize property owners' ability to make energy efficiency upgrades to their property and install renewable energy technology. Through AB 811, contractual assessments on local property tax bills are used to pay for these improvements.<sup>2</sup> In doing so, AB 811 aims to minimize the upfront costs of improvements by providing property owners with a pay-as-you-go funding option, which includes a longer repayment period than might otherwise be possible with conventional financing.

Since contractual assessments run with the property, program costs and benefits can be transferred to subsequent owners when the property is sold. This helps address many property owners' reluctance to install higher-cost solar and energy efficiency upgrades, since the cost of those improvements may not be fully recovered in the price of the home or commercial building upon resale. As part of AB 811, all improvements must be permanently affixed to pre-existing residential, commercial, industrial or other real property. This debt is land secured, and applies to existing real property. The provisions of the program do not apply to new development.

According to the statute, to legally establish an AB 811 program a local agency must adopt a resolution of intention indicating its intention to do so. The resolution of intention must, among other things, 1) include a statement that the local agency proposes to make contractual assessment financing available to property owners; 2) identify the kinds of public works, distributed generation renewable energy sources, or energy or water efficiency improvements that may be financed; 3) describe the boundaries of the area within which contractual assessments may be entered into; and 4) briefly describe the proposed arrangements for financing the program. Subsequently, the local agency must hold a public hearing at which the report shall be summarized and those present have an opportunity to comment. At the conclusion of the hearing, the legislative body may adopt a resolution confirming the report or may direct its modification and thereafter adopt a resolution confirming the report as modified, or the legislative body may abandon the proceedings.<sup>3</sup>

### Nexus with Climate Change and Economic Recovery Efforts

AB 811 provides a mechanism through which California municipalities can simultaneously address two broader policy issues: climate change and economic recovery. The State made climate change an important priority in 2006 when it adopted AB 32: the Global Warming Solutions Act. AB 32 established a 15 percent target for reductions to statewide GHG emissions by 2020, and an 80 percent target by 2050 – a goal that requires a fundamental repositioning of the statewide economy, along with the behaviors of individuals, households, and businesses. AB 32 was accompanied by a Scoping Plan which notes that residential and commercial buildings account for nearly 25 percent of statewide GHG emissions. Among several other emission reduction measures outlined in the Scoping Plan, energy efficiency and renewable

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<sup>2</sup> Amended in 1987, Sections 5898.10 through 5898.32 of the Streets and Highways Code

<sup>3</sup> Statute can be found at [http://www.energy.ca.gov/recovery/documents/ab\\_811\\_bill\\_20080721\\_chaptered.pdf](http://www.energy.ca.gov/recovery/documents/ab_811_bill_20080721_chaptered.pdf)

technologies are projected to deliver a large portion of the greenhouse gas emissions reductions necessary to achieve the goals of AB 32.<sup>4</sup> According to the California Energy Commission,<sup>5</sup> 9 million homes in California need to be retrofitted, or roughly 75 percent of existing stock in order to achieve statewide energy and greenhouse gas emission goals. Through the provision of financial incentives to streamline efficiency retrofits and renewable energy improvements, AB 811 gives local governments an important and unique role in a comprehensive greenhouse gas emission reduction strategy.

Concurrently, the economic benefits of municipal energy finance programs are attracting strong attention throughout the nation. By incentivizing energy efficiency retrofits and solar installation, early municipal energy finance programs in Sonoma County and the City of Palm Desert have successfully put contractors back to work, helped incubate new energy businesses, and have already induced tens of millions of dollars in private investment into these communities. Noting these demonstrated benefits, the federal government has recently issued a series of reports, including a recent report released by the Office of the Vice President called *Recovery Through Retrofit*,<sup>6</sup> that describe aggressive federal support for what are termed Property Assessed Clean Energy, or “PACE,” programs, concluding that such programs provide a prime opportunity to reduce greenhouse gas emissions while supporting economic recovery (described further in Section 7: Additional Impacts).

In fact, the federal government, through the United States (US) Department of Energy (DOE) intends to continue using American Recovery and Reinvestment Act (ARRA) funds to encourage widespread implementation of local programs.<sup>7</sup> The California Energy Commission recently announced guidelines for two ARRA funding opportunities – the State Energy Program (SEP) and the Energy Efficiency and Conservation Block Grant (EECBG) – that would pay for activities such as administrative program costs, financing costs, educational demonstration projects, and seed money for a pilot effort (described further in Section 5: Financing Plan).

In Santa Barbara County, a successful municipal energy finance program would directly align with Santa Barbara County’s recently adopted Climate Change Guiding Principles which underscore the importance of County GHG emission reduction efforts,<sup>8</sup> and constitute a significant early implementation measure in the Santa Barbara County’s Climate Action Strategy (CAS) now underway. Noting the timely opportunity to reduce GHG emissions and revive a struggling local economy by leveraging available federal stimulus funding, in May 2009, County staff from Long Range Planning, Housing and Community Development, the Redevelopment Agency, the Workforce Investment Board, Project Clean Water, as well as Building and Safety formed an interagency working group to develop best-practice strategies related to improving building energy efficiency and conservation in all segments of the community (Figure 1).

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4 The full AB 32 Scoping Plan can be accessed at <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>

5 From CEC Clean Energy Summit Webcast Presentation (8/10/09)

6 *Recovery Through Retrofit* was released October 2009 by the Middle Class Task Force Council on Environmental Quality, lead by the Office of the Vice President and the Executive Office of the President.

7 The White House PACE Principles and the report *Recovery Through Retrofits* can be accessed at:

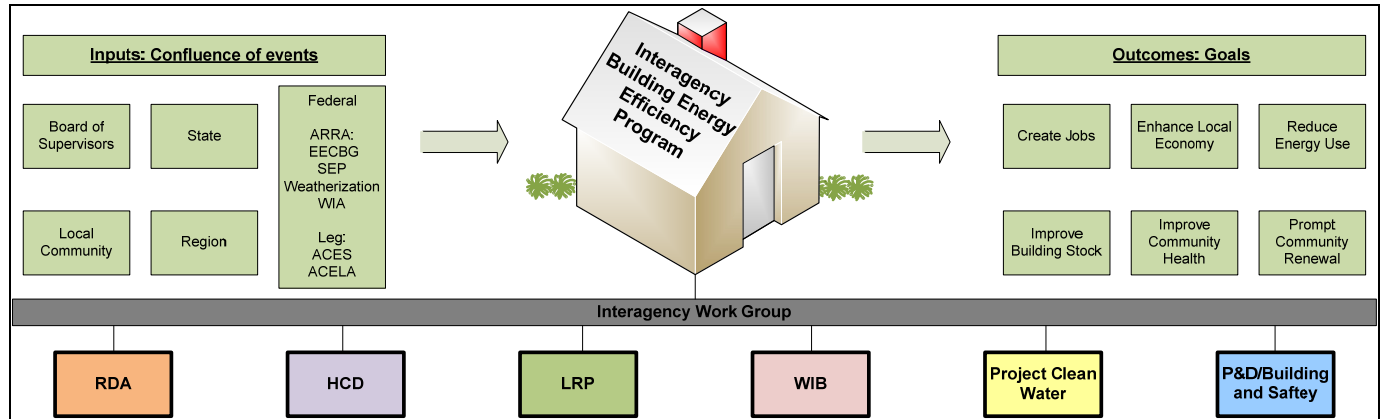
[http://www.whitehouse.gov/assets/documents/Recovery\\_Through\\_Retrofit\\_Final\\_Report.pdf](http://www.whitehouse.gov/assets/documents/Recovery_Through_Retrofit_Final_Report.pdf)

[http://www.whitehouse.gov/assets/documents/PACE\\_Principles.pdf](http://www.whitehouse.gov/assets/documents/PACE_Principles.pdf)

8 Adopted by the Board of Supervisors on March 17, 2009, can be accessed at

<http://longrange.sbcountyplanning.org/programs/climateactionstrategy/docs/Resolution%2009-059-final%20draft%20signed.pdf>

Figure 1. Interagency Building Energy Efficiency Group



With the potential to provide financing if adopted, an AB 811 program is major component of a comprehensive approach to countywide building energy efficiency. In order to gain the full economic and environmental benefits from building energy efficiency opportunities, the interagency group continues to explore complementary programmatic elements which could include the following:

- Regional clean energy workforce development and retraining programs targeting dislocated workers and apprenticeships
- Subsidized solar installation and energy efficiency retrofits for low income residents, in conjunction with existing community programs including the Community Action Coalition’s weatherization efforts, and efforts managed by Grid Alternatives<sup>9</sup>
- An expanded Innovative Building Review Program (IBRP) to provide related information and technical advice to property owners
- Incubation of clean technology industries
- Demonstration projects in key redevelopment areas

## Case Studies and Success Rates

Numerous jurisdictions are currently exploring municipal energy finance programs including Los Angeles County, San Diego County, the Association of Bay Area Governments, the City/County of Sacramento, the City of Oakland, the City of San Francisco, the City of Roseville, and Alameda County. There are, however, only three jurisdictions in California that have demonstrated successful program implementation. The case studies below<sup>10</sup> provide valuable lessons and best practices. In summary, existing programs have been able to achieve economic development goals, as well as GHG emission reduction targets, consistent with federal, state and local climate policy implementation.

<sup>9</sup> GRID alternatives manages credits available to lower income households to help dramatically reduce the cost of solar installations: multifamily affordable solar housing program (MASH) and single family affordable solar housing program (SASH).

<sup>10</sup> Case studies were informed by several sources including Renewable Funding California Communities CaliforniaFIRST Program Data and Demand Analysis (September 16, 2009) and “Guide to Energy Efficiency & Renewable Energy Financing Districts For Local Governments” prepared by University of California, Berkeley.

### ***Energy Independence Program, Palm Desert, California***

Palm Desert, CA initiated an AB 811 finance program in October 2007, as part of its Climate Action Plan. The program has gone through three rounds of funding. For the first two phases, the city's general fund provided approximately \$7.5 million to fund 200 contractual assessments averaging \$36,000. Seventy percent of the contractual assessments were for energy improvements, as opposed to solar. Wells Fargo has committed over \$2.5 million in a public/private partnership for phase 3. Consumer savings reached \$20 million in less than a year. Seven new clean energy start-ups have emerged since program adoption. To increase scale and build upon programmatic success, Palm Desert is considering a regional model for Riverside County. In conversations with representatives from Palm Desert, County staff was encouraged to use a customized approach to retain local control and provide appropriate customer service to residents and business owners including a physical storefront, as well as to include workforce development experts early in the process.

### ***BerkeleyFIRST, Berkeley, California***

As part of the Climate Action Plan, Berkeley established a "special tax financing law" in their municipal code, using their authority as a charter city. In November of 2008, the city launched a \$1.5 million dollar pilot phase limited only to solar photovoltaics (PV). Applications for the pilot were closed within the first 10 minutes due to overwhelming demand from Berkeley homeowners. This included 38 residential projects with an average project value of \$28,000. The City is currently evaluating the pilot to assess the potential to launch a full program that would include energy efficiency and solar energy projects.

### ***Sonoma County Energy Independence Program (SCEIP), Sonoma County, California***

As part of the Climate Action Plan, Sonoma County's AB 811 program includes the County and all 9 cities in a Joint Powers Authority (JPA) called the Sonoma County Energy Independence Program. Approximately \$100 million in financing from the County Treasurer's Investment Pool and Water Agency has funded the program. The program was adopted in March 2009, and as of September 1, 2009, 535 applications have been received, totaling \$18.5 million. Participation is growing at a rate of \$750,000 per week. Applications are split between solar and energy efficiency improvements, including water conservation technology. Sonoma County estimates the potential for approximately \$1 billion in work for contractors. Accordingly, the program is being used as a national model by the US Department of Energy.

### ***ClimateSmart Loan Program, Boulder County, Colorado***

Boulder County, Colorado established a municipal financing district under the enabling legislation House Bill 08-1350. In November 2008, Boulder County voters passed Ballot Measure 1A to authorize \$40 million in bonding capacity for the Climate Smart Loan Program. The program began accepting applications for its initial phase in April 2009, receiving almost 400 applications for over \$7.5 million in financing. The average project amount was \$15,869. The program funds solar hot water, solar PV, small wind, and energy efficiency measures. Boulder has used the "pooled bond approach" where the administrator approves a portfolio of individual projects before issuing bonds. A second round of funding was scheduled to occur in September 2009.

A comparison chart of each case study described is provided on the following page.<sup>11</sup>

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<sup>11</sup> Adapted from *Guide to Energy Efficiency & Renewable Energy Financing Districts For Local Governments* prepared by University of California, Berkeley.

Table 1: Case Study Comparison Chart

	Palm Desert, CA	Berkely, CA	Sonoma County, CO	Boulder County, CO
<b>Program Launched</b>	Oct-08	Nov-08	Mar-09	Apr-09
<b>Owner Occupied Housing Units</b>	14,947	19,841	111,937	74,893
<b>Median Family Income</b>	\$70K	\$86K	\$62K	\$84K
<b>Source of Capital</b>	General fund, Redev Agency bonds, seeking financing partner now	"Micro" bond sold to financial partner	County treasury pool and water agency	County issue bonds
<b>Financing Mechanism</b>	Assessment (AB 811)	Special tax (Mello-Roos)	Assessment (AB 811)	Assessment (HB 08-1350)
<b>Collection Mechanism</b>	Property tax bill	Property tax bill	Property Tax Bill	Property Tax Bill
<b>Eligible Measures</b>	Energy efficiency, solar thermal, solar PV	Solar PV (pilot)	Energy efficiency, Water efficiency and variety of renewables	Energy Efficiency and variety of renewables
<b>Rate; Term; Max Amt</b>	7% up to 20 years, no max	7.75%; 20 years; \$37,500	7%; 20 years; no max	Varies (6.68% for 1st round); 15 years; \$50,000
<b>Who Processes Application</b>	City staff	Third party	Sonoma County Energy Independence Program	County staff with third party support
<b>Local Gov't Staff</b>	1.5GTE	1.25 FTE	7 FTE	1-2 FTE
<b>Results as of August 2009</b>	206 projects, \$28,000 ave/per \$1M committed	38 project; \$28,000 ave/per \$1M committed	400+ projects; \$35,000 ave/per \$14 M committed	393 projects; \$19,000 per \$7.5M committed
<b>Estimated Annual Application</b>	400	500	900	700

In summary, these case studies illustrate several common themes:

- Existing programs have been met with significant demand, even under varying program constructs, and are achieving early success.
- A comprehensive, regional program is critical for achieving scale. While small jurisdictions with a smaller pool of owner occupied home owners have achieved some success, Sonoma and Boulder are the only programs large enough to achieve enough scale to fund interim contractual assessments through internal resources. Berkeley and Palm Desert may have a large proportion of interested property owners, but they are not large enough to have access to the interim resources needed for contractual assessments.
- Outreach should be fast-tracked to garner participation by local cities and/or neighboring counties.
- Local governments must retain sufficient local control and involvement to actively promote workforce investment and training.
- High average contractual assessment sizes in these jurisdictions indicate a preference for solar. However, given new federal and state guidelines, along with increased information on the cost-effectiveness, it is likely that energy efficiency improvements be performed first, coupled with smaller solar units. This could reduce average contractual assessment requests for programs implemented in the future.
- Interest rates for these contractual assessments tend to fall in the 7 percent range, which reflects the rate acceptable by participants under current market conditions.
- Administrative requirements vary substantially under various organizational structures. In all cases, administrative needs, whether administered in house or by an external party, are significant given the workload necessary to launch and market a program, process applications and handle customer service.



## 3. Santa Barbara County Market Analysis

### *Given the program scale, can local demand and available workforce support the necessary volume of contractual assessments?*

As illustrated in other jurisdictions, an adequate level of participation in, or demand for, a regional program is critical for sustained financial feasibility. Accordingly, to assess the likely demand for a municipal energy financing program in Santa Barbara County, the Market Analysis section evaluates important factors related to forecasted participation. These factors include local climate, quality and type of the existing building stock, demographics, and the availability of various incentives (i.e. rebates), which serve to make energy retrofits and solar installation more cost effective and increase overall demand. This Market Analysis also describes the supply of skilled workers available to service the region and support successful program implementation. Statistically valid demand surveys conducted by the California Statewide Community Development Authority (CSCDA) and Sonoma County have provided supplemental insight into these factors, and further illuminate the level of demand that could be expected in Santa Barbara County.

Assumptions taken from these surveys, informed by subsequent analysis, were used to estimate program participation. Accordingly, three Santa Barbara County-based scenarios of varying program size were devised. These scenarios are used throughout this study to analyze the best approach for achieving cost neutrality, an important attribute to determining overall feasibility.

### Climate

Climate and geography significantly impact the energy and water demands of a building, translating directly to expenses for property owners. It is expected that property owners with the highest utility and water costs are most likely to seek strategies to reduce their bills, and therefore be most likely to participate in municipal energy finance program. While Santa Barbara County is one of the most pleasant year-round climates in the country, residents can attain energy and water cost savings and improve indoor comfort, particularly in areas of the County with more extreme climates.

#### **Temperature and Energy Demand**

In Santa Barbara County, typical temperatures range from the mid-50s to mid-70s (degrees Fahrenheit) throughout much of the year. However, extreme highs and lows may also occur. Within the last 60 years, temperatures as high as 109 degrees, and as low as 20 degrees, have been recorded in the County.<sup>12</sup>

Despite the relatively mild climate, residents can achieve the significant benefits of increased indoor comfort and financial savings associated with energy improvements. While few regions in California experience the consistent heat, and associated energy costs, of jurisdictions such as Palm Desert, the California Energy Commission's Consumer Energy Center indicates that the average home spends approximately \$1,900 on energy costs every year<sup>13</sup> – a substantial sum of discretionary income for most households.

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<sup>12</sup> Santa Barbara County Public Works Climatology description: <http://www.countyofsb.org/pwd/water/climatology.htm>

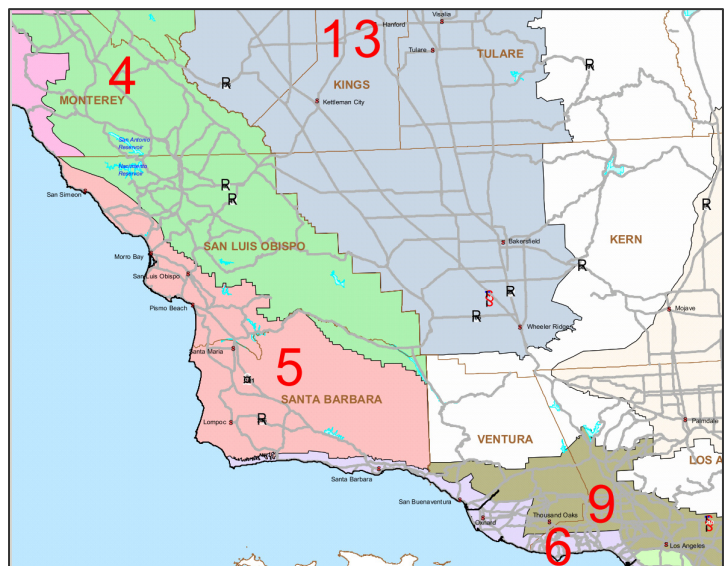
<sup>13</sup> California Energy Commission Consumer Energy Center energy saving tips can be found at <http://www.consumerenergycenter.org/tips/winter.html>

The extent to which energy savings and indoor comfort benefits are realized will likely vary in different microclimates of the County. From the Santa Ynez Mountains to the beaches of Summerland, the Santa Barbara County region encompasses enormously varied terrain and topography. As shown in the map in Figure 2, the County is comprised of three specific building climate zones, each with different energy efficiency construction requirements:<sup>14</sup>

- **Zone 4** (central coastal valley) is inland of the coast with some ocean influence which keeps temperatures from hitting more extreme highs and lows. However summers are hot and dry and require cooling, and many days of low temperatures in the winter require heating.
- **Zone 5** (central coastal) is characterized by warmer temperatures and moist air due to the proximity to the ocean and southern latitude. This zone comes close to comfort standards, meaning little cooling is needed and heat is only necessary for part of the day, even in the winter.
- **Zone 6** (south coastal – Los Angeles) includes beaches at the foot of southern California hills where the ocean is relatively warm and keeps the climate very mild, and sunshine is plentiful making solar equipment very advantageous. This zone requires the least energy of any region in California.<sup>15</sup>

South County cities and towns, which are in building climate zones 5 and 6, are south of the Santa Ynez mountains, along the shore of the Pacific Ocean. Many North County communities, in zones 4 and 5, are located in higher-elevation inland mountain valleys. Here, temperatures are an average of 15-20 degrees (Fahrenheit) hotter during the day, than on the South Coast. Conversely, low temperatures tend to be colder than those experienced on the South Coast. Given these dynamics, inland areas are expected to have more economic incentive to pursue energy efficiency improvements or solar installation to reduce utility bills, and therefore higher levels of programmatic demand.

Figure 2. Modified California Climate Zone Map



### Rainfall and Water Prices

While temperature is an important climate-related factor, rainfall is also important, as regional water availability affects the prices local water purveyors charge property owners. Rainfall within the County is fairly low on average (roughly 18 inches per year), but varies from season to season and with each

<sup>14</sup> The California Energy Commission recognizes 16 different climate zones in California, based on models related to energy use, temperature, weather and other factors. These zones are incorporated into the Energy Code which dictates minimum efficiency requirements. Each climate zone has special recommendations for insulation levels and ventilation including configurations of crawlspaces and attics and recommendations for foundation types. This map can be found at [http://www.energy.ca.gov/maps/BUILDING\\_CLIMATE\\_ZONES.PDF](http://www.energy.ca.gov/maps/BUILDING_CLIMATE_ZONES.PDF)

<sup>15</sup> PG&E provides a Guide California Climate Zones at <http://www.pge.com/mybusiness/edusafety/training/pec/toolbox/arch/climate/index.shtml>



microclimate. Average annual precipitation ranges from a minimum of about 8 inches in the Cuyama Valley to over 36 inches at the apex of the Santa Ynez Mountains. Climate studies have determined that drought periods occur regularly and may last as long as a decade or more. The most recent drought lasted from 1986 to 1991, during which water storage in the County's major reservoirs was nearly depleted. Due to the limited supply of water to the region, water costs exceed energy costs for many households. In fact, average water costs for households in the Santa Barbara region often exceed \$1,000 per year. This translates directly to an economic incentive for implementation of cost-effective water conservation activities throughout the County. As energy and water costs continue to rise, energy retrofits, renewable energy installation, and water conservation activities can provide significant cost relief, while also providing increased comfort.

## Existing Building Stock

Along with climate related factors, building energy and water efficiency also depends upon the age and condition of the building. The age and condition helps indicate a potential need for the retrofits and rehabilitation work enabled through a municipal financing district. In Santa Barbara County, 81 percent of the stock was built prior to 1990 and roughly 50 percent was built before 1975.<sup>16</sup> Therefore the majority of the building stock was built before more stringent energy efficiency requirements were in place. Such factors make Santa Barbara County somewhat better suited for a municipal energy finance district than communities with proportionally newer construction, like Palm Desert.

Additionally, the breakdown of types of buildings within a jurisdiction helps to illustrate likely demand for a municipal energy finance program. Since the benefits of the program (i.e. comfort and monetary savings) go directly to those who occupy buildings and pay for energy and water bills - and repayment is made through property taxes - participation would be most attractive owner-occupied homes or businesses. Of the approximately 150,000 residential units within unincorporated and incorporated parts of the county, over half (76,400) are owner-occupied.<sup>17</sup> Due to the fact that multifamily residential units often share utility and water systems and costs, single-family homes are best suited for program participation. In Santa Barbara County, roughly 70 percent of residential buildings are single-family detached homes.<sup>18</sup> This fact, coupled with age of the building stock in the region, suggests that an overwhelming majority of property owners could benefit from participation in a municipal energy finance program.

In addition to a sizable pool of eligible residential participants, there are nearly 6,000 non-residential parcels across the County that would be eligible for program participation. Table 2 uses County Assessor data to show the number of (non vacant) parcels in each of the cities and in the County in three categories: 1) single family residential parcels, 2) commercial parcels, 3) and industrial parcels.<sup>19</sup> This helps to illustrate the relative demand for both residential and non-residential contractual assessments in each jurisdiction. It is important to note that more than one building may exist on each parcel.

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<sup>16</sup> 2009-2010 Santa Barbara County Draft Housing Element can be found at [http://longrange.sbcountyplanning.org/programs/housing/documents/2009/Chapter percent202 percent20- percent20Needs percent2010-01-09.pdf](http://longrange.sbcountyplanning.org/programs/housing/documents/2009/Chapter%202%20-%20Needs%202010-01-09.pdf).

<sup>17</sup> 2009-2010 Santa Barbara County Draft Housing Element.

<sup>18</sup> 2009-2010 Santa Barbara County Draft Housing Element.

<sup>19</sup> 2009 Secured Assessment Roll compiled 7/14/2009 by the Santa Barbara County Clerk Recorder and Assessor.

Table 2. Breakdown of Countywide Residential and Nonresidential Parcels by Jurisdiction

Jurisdiction	Number of Single Family Residential Parcels	Number of Commercial Parcels	Number of Industrial Parcels	Total Parcels
<i>Unincorporated</i>				
Santa Barbara County	27,604	403	71	28,078
<i>Incorporated</i>				
Buellton	1,006	92	73	1,171
Carpinteria	1,620	153	77	1,850
Goleta	5,263	341	190	5,794
Guadalupe	1,276	68	23	1,367
Lompoc	7,038	374	152	7,564
Santa Barbara	14,117	1,734	334	16,185
Santa Maria	15,813	1,049	440	17,302
Solvang	1,173	217	4	1,394
Total Incorporated	47,306	4,028	1,293	52,627
<b>Total</b>	<b>74,910</b>	<b>4,431</b>	<b>1,364</b>	<b>80,705</b>

## Demographics

Beyond the demonstrated need for energy and water related improvements, program demand also depends on the ability for property owners to afford to participate. Several demographic factors indicate the availability of sufficient equity necessary for program participation. For example, the average household income is \$57,741, and 66 percent of households are moderate-income and above.<sup>20</sup> The median home price in the County is \$653,000. Of the owner occupied units, 29 percent, or 22,500, have no mortgage burden. For homeowners with a mortgage, monthly payments are \$2,360 on average. In total, statistics point toward a conclusion that homeowners in Santa Barbara County are likely to have the economic means necessary for program participation.

## Relevant Market Studies

The County has yet to complete a full statistical analysis of program demand. However, two recent market studies provide a directly relevant nexus for estimating the expected demand in Santa Barbara County.

### Sonoma County Market Survey

Prior to program implementation, Sonoma County funded a scientific survey, determining that approximately 20 percent of homeowners within the region – or approximately 22,400 households – would be interested in participating in the program. Given the level of financing availability, approximately 3 percent of interested homeowners are expected to participate the first year.<sup>21</sup>

Demographic and socioeconomic similarities between Santa Barbara and Sonoma counties indicate that a regional program in Santa Barbara County that includes the incorporated cites is likely to result in similar

<sup>20</sup> 2009-2010 Santa Barbara County Housing Element.

<sup>21</sup> Via interviews with Rod Dole, Program Administrator of Sonoma County’s Energy Independence Program (SCEIP).

proportional participation and demand. For example, the average household income of \$62,279 in Sonoma County tracks closely to that of \$57,741 in Santa Barbara County. Moreover, whereas 26 percent, or approximately 30,000, of the 112,000 owner-occupied homes in Sonoma County currently have no mortgage, 29 percent, or 22,500, of the 76,400 owner-occupied homes in Santa Barbara County have no mortgage burden. In addition, median home prices are similar between both counties, at \$611,000 for Sonoma County and \$653,000 for Santa Barbara County. Other indicators of programmatic demand, such as the age of the residential building stock in both Sonoma and Santa Barbara counties yield strong similarities: 81 percent of the stock in Santa Barbara County was built prior to 1990, and 78 percent of the stock in Sonoma County was built prior to this date.<sup>22</sup>

Additionally, as described in the “Climate” section, the inclusion of a water conservation component, similar to that provided in Sonoma County, could be instrumental in garnering high program participation.

### **Renewable Funding Market Survey**

Renewable Funding, a company working with California Communities to develop a pilot statewide AB 811 turn-key program, conducted a demand analysis survey of 1000 California homeowners within five regions of the state, including the Central Coast.<sup>23</sup> The survey indicated that 83 percent of all participants were at least somewhat interested in the program. Overall, the survey findings demonstrated that 15 percent of homeowners were very likely candidates, 18 percent were possible candidates, 28 percent were unlikely candidates, and 39 percent were not candidates (either not interested or do not have positive equity in their home). Of note, the “very likely” candidates agreed that it was okay if they did not save money over the life of the contractual assessment, as long as payments were affordable and the equipment has a substantial benefit to the environment. One of the most relevant findings in the study was that higher proportions (23 percent) of Central Coast respondents are likely program candidates than in other areas. This is not surprising, considering these jurisdictions are often home to strong local environmental traditions.

Together, these studies provide insights suggesting that approximately 20-23 percent of homeowners in the region would be interested in participating in a municipal energy finance program in Santa Barbara County.

## **Other Incentives**

Numerous financial incentives are currently available to lower the price of energy efficiency and solar improvements. Lower prices will reduce the amount of funding a property owner must request from a municipal energy finance program, thereby lowering the ongoing repayments assessed through property taxes. For this reason, it is expected that the increasing availability of incentives will result in increased interest and demand in the program. These include rebates from various levels of government and utility companies.

Recent changes by Congress to the Federal Tax Credit and Energy Efficiency Rebate Program have provided direct incentives to homeowners by providing tax credits for qualifying energy efficiency improvements in the areas of solar installation, weatherization retrofits, and energy-star appliance upgrades. Similar programs are also available to businesses to partially offset costs associated with energy

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<sup>22</sup> US Census.

<sup>23</sup> Renewable Funding California Communities CaliforniaFIRST Program Data and Demand Analysis (September 16, 2009)

efficiency retrofits. In California, the California Solar Initiative provides significant rebates for solar technology. At the County, Building and Safety's Innovative Building Review Program (IBRP) provides a number of incentives to projects if they exceed Title 24 standards by a certain percentage and include additional energy efficiency features. Incentives include fast-tracked permit processing or reduced plan-check fees.

Additionally, local utility companies provide a variety of incentives to both residential and non residential energy users, including the following examples:

- Rebates from natural gas companies for energy saving appliance installations that burn natural gas, such as “on-demand” water heaters and qualifying home heating systems.
- Rebates from Southern California Edison (SCE) and Pacific Gas and Electric (PG&E) for various residential improvements such as lighting, pool products, heating and cooling improvements, and home appliances such as refrigerators and water heaters.
- Free direct audit or installation services for small businesses. For example, from January 2009 through September 2009, PG&E has provided free direct installations of energy efficiency products to 134 small businesses in Santa Barbara County.

In order to forge collaborative efforts and leverage available resources, the project team has begun to engage local utility representatives to discuss possible partnerships. In doing so, the project team has learned about partnership opportunities through two local energy efficiency consortiums funded by local utility companies: South Coast Energy Efficiency Program and Energy Watch Partnership in the North County. Through these programs, financial resources are available for local governments from the utility companies to support programs that encourage retrofits designed to increase community wide energy conservation. In fact, on September 24, 2009, the California Public Utility Commission approved a \$3.1 billion plan for Southern California Edison, Pacific Gas and Electric Company, San Diego Gas and Electric Company, and Southern California Gas Company to establish energy efficiency programs for 2010 – 2012. This agreement represents the largest commitment ever made by a state to energy efficiency and is expected to help the state avoid 3 million tons of GHG emissions and create 15,000-18,000 skilled green jobs.<sup>24</sup>

## Local Workforce and Opportunities for Job Creation

Thusfar, this section has focused solely on the demand side of market feasibility. However, the supply of local labor capable of supporting demand is also critical component of market feasibility. Simply put, the work paid for through a municipal energy finance program cannot be done without an adequate local supply of skilled workers trained to perform energy efficiency retrofit and renewable installation.

Without a doubt, the County is home to many outstanding skilled contractors, such as single trade contractors licensed to install specific improvements, such as HVAC systems or insulation, as well as others in the building trades including carpenters, electricians, roofers, and construction managers. Interviews and outreach to local contractors and builders demonstrate a high degree of awareness regarding energy efficiency and renewable energy opportunities among the diverse communities throughout the region. While local contractors indicate that a sufficient level of specialty contractors is available in the region to support individual energy related improvements, they note that very few are

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24 The CPUC's 2010-2012 plan can be found at [http://docs.cpuc.ca.gov/PUBLISHED/AGENDA\\_DECISION/107378.htm](http://docs.cpuc.ca.gov/PUBLISHED/AGENDA_DECISION/107378.htm).

currently trained as home performance contractors able to execute comprehensive whole building retrofits. Local contractors believe workers are eager to attain skills and add new services to their businesses if a municipal energy finance program were implemented, thereby increasing local demand. Fortunately, local professional associations have a strong track record of helping its membership both respond to changes in demand and state regulatory requirements, as well as take advantage of available incentives.

Accordingly, implementation of a successful local municipal energy financing district would stimulate local job creation, particularly for professionals specializing in: 1) the design, construction, and maintenance of buildings and facilities using processes and materials which promote environmental sustainability, and 2) the development and installation of new energy technologies and materials.<sup>25</sup> In fact, if just 1 percent of all the homes in the County were to undergo an energy retrofit, over 350 jobs would be created or maintained in the Santa Barbara County (for more detailed projections on job impacts, see Section 7: Additional Impacts).<sup>26</sup>

Clearly, the timing of a new policy initiative provides significant opportunity to help local tradespeople. With a total unemployment rate of approximately 9 percent, certain industries in the region, such as the construction trades, have been more impacted than others by the current downturn. In fact, since 2007, the number of construction jobs in the region has already declined by 22 percent, from a peak of 10,800 to 8,400.<sup>27</sup> As a result, the capital provided through municipal energy financing programs would speed the implementation of new energy efficiency technology in homes and commercial property, thereby increasing level of work available building professionals, helping to address the existing and predicted underutilization of the building workforce.

Moreover, as new industries emerge as a result of the growing green economy, new opportunities for specialization will become available. For example, the Home Energy Rating System (HERS) was recently adopted as the official California Energy Commission (CEC) – endorsed energy auditing system. HERS involves a rating process with field verification, diagnostic testing, and building performance analysis. In total, a HERS rating is capable of providing useful information to property owners, helping to support cost-effective decision making through providing objective, fact-based information. Given the importance of this information to consumers, the demand for HERS audits and workers capable of carrying out these or other types of home performance ratings is expected to increase. Currently, only 19 auditors or raters have been identified that provide service in the tri-county areas, and only two are located in Santa Barbara County.<sup>28</sup> With implementation of a municipal energy finance district, this is just one type of skill set that is expected to be in higher demand. Others include insulation and weatherization workers, solar PV panel installers and technicians.

Looking forward, it is clear that a focused effort is necessary to build a workforce that can thrive in emerging green building industries. In conversations with workforce development experts and local

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25 The Development Challenges and Opportunities in Santa Barbara County. Santa Barbara County Workforce Development Board, 2009.

26 Analysis performed using IMPLAN software.

27 State of California Employment Development Department, September 2009.

28 In order to determine the number of HERS raters located in- or that service Santa Barbara County, a preliminary list of raters throughout the state was generated by a group of UCSB Bren School graduate students using information from CalCERTS, CHEERS, and the CBPCA. As of July 2009, approximately 19 raters were found to provide service for Santa Barbara. Of this group, only 2 were located in Santa Barbara County, however other independent contractors may exist.



educators, the project team recognizes that both Santa Barbara City College and Allan Hancock College have put curriculum in place to ensure local tradespeople of today and tomorrow have access to training on the latest building technologies, materials, and techniques. In order to ensure new and existing workers continue to have increased access to workforce development, training and certification opportunities like these, it is critical that the County coordinate with industry associations, local community colleges, utilities, Workforce Investment Boards, and other training providers. Strategic cross-organizational partnerships can ensure that a highly professional and well-trained workforce is available to serve ongoing consumer demand for residential and commercial energy retrofits.

## Market Conclusions

The analysis in this section suggests that Santa Barbara County has adequate demand to sustain ongoing municipal energy finance program feasibility. Concurrently, the County is home to sufficiently skilled workers capable of supporting program implementation, given a coordinated workforce development effort. Despite its mild climate, a sizable number of single family homeowners and business owners are expected to be interested accessing the benefits of lower energy and water bills, while achieving improved indoor comfort and higher home equity, particularly in older buildings. Strong program interest is critical, considering that adequate participation is one of the most important factors in determining ongoing programmatic and financial sustainability, described in the following sections.

Before moving on, there are several key market conclusions worth emphasizing:

**Cities must be included:** Without a doubt, to ensure that the County can achieve the scale necessary for program success, participation from each incorporated city will be a fundamental aspect of program success. The program administered by Sonoma County bridges all cities within the region under a central program framework, achieving a potential customer base of approximately 463,000 people.<sup>29</sup> With over \$12 million in approved contractual assessments, and \$8 million in contract as of August 28, 2009, Sonoma County is quickly approaching a level of funding whereby accessing the market for long-term financing could soon become a reality.

**Marketing will be important:** Outreach efforts will play an important role in the success of the program. However, lack of information about clean energy options or the impact of greenhouse gas emissions may make the task of marketing the program more difficult. Identifying existing means within the community to provide the public with information is a critical first step.

The project team has already begun extensive outreach to both community groups and contractors, and will continue to do so in preparation for program implementation. It will be critical to engage local solar and energy efficiency contractors. Preliminary conversations with related business owners, contractors and associations reveal that they are best equipped to educate customers about clean energy improvements. Other successful programs, including Sonoma County have relied heavily on contractors as the primary marketing force.

Additionally, local community organizations, such as neighborhood associations, small business councils, local nonprofits, rotary clubs, religious groups, and other organizations can become useful ambassadors for the program. In communicating effectively with these groups, the project team has already begun

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<sup>29</sup> Program details at <http://www.sonomacountyenergy.org/>

identifying strategic partnerships that could yield greater program efficiencies and leverage additional resources.

**The County must be engaged in workforce development:** While the County is fortunate to have a willing and capable workforce eager to meet the demand presented by a municipal finance district, additional workforce development will be necessary to train or retrain new or existing workers. As discussed earlier, the County’s interagency building energy efficiency group has been exploring opportunities to train or retrain the local workforce in order to prepare for the increase in demand for related services. Those efforts have already been fruitful, as an application for federal Recovery Act dollars was recently awarded over \$600,000 for a green building apprenticeship program in partnership with San Luis Obispo County. The program would provide at least 200 adults (over 18 years old) classroom and hands on training in the fields energy weatherization, retrofit and alternative landscape, including water efficiency. The County must continue to seek similar funding opportunities as they to become available.

### ***Estimated Participation***

Using assumptions based on the market analysis (explained in detail in Appendix A), three scenarios of various program sizes, or estimated annual contractual assessment volumes, were created for analysis. The scenarios are used in the following sections to identify the optimal program size as it relates to financial feasibility (ensuring that ongoing costs are offset by revenue in a number of programmatic options and the ability to preserve the County’s overall fiscal integrity is maximized) and desired outcomes (economic impact and GHG emission reduction).

#### **Scenario 1 (small): 160 contractual assessments/year**

Contractual assessments provided to roughly 10 percent of all “interested” property owners of owner occupied homes by 2020 (1,757 contractual assessments). As a result, roughly 1 percent of all homes in the County would be retrofitted and/or receive solar installations by 2020. The volume of contractual assessments needed to support this level of participation is \$4.8 million/year.

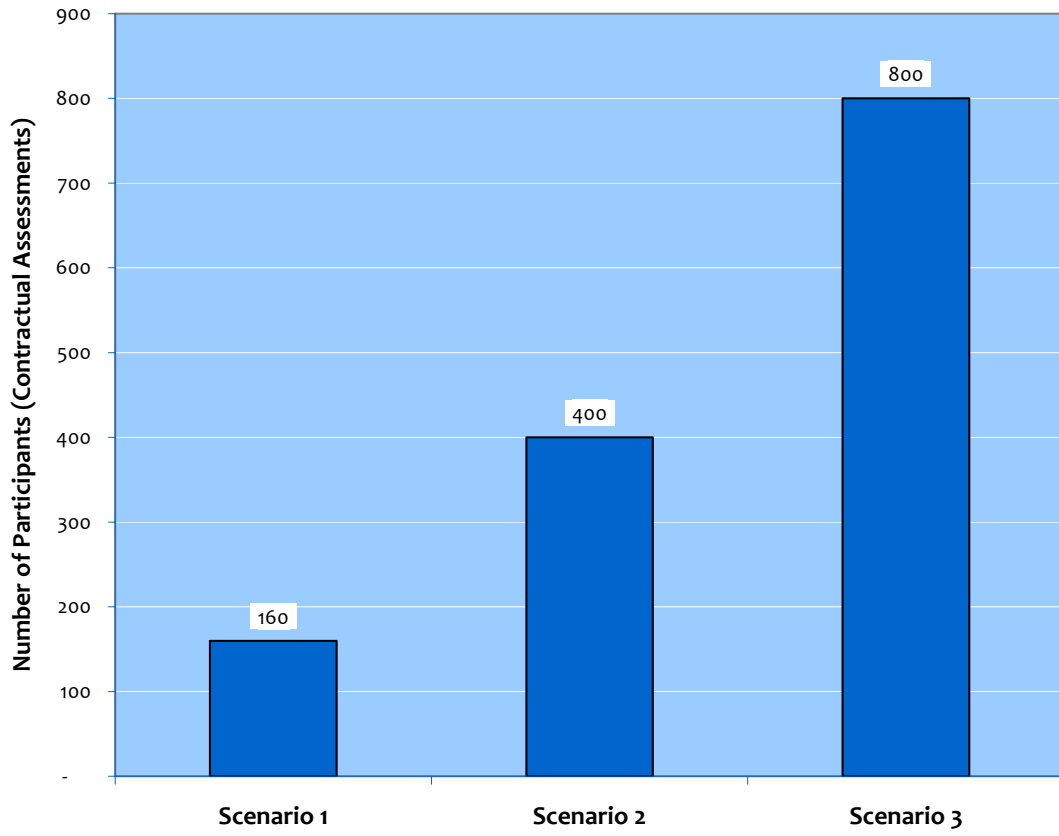
#### **Scenario 2 (medium): 400 contractual assessments/year**

Contractual assessments provided to roughly 25 percent of all “interested” property owners of owner occupied homes by 2020 (4,393 contractual assessments). As a result, roughly 3 percent of all homes in the County would be retrofitted and/or receive solar installations by 2020. The volume of contractual assessments needed to support this level of participation is \$11.9 million/year.

#### **Scenario 3 (large): 800 contractual assessments/year**

Contractual assessments provided to roughly 50 percent of all “interested” property owners of owner occupied homes by 2020 (8,786 contractual assessments). As a result, roughly 6 percent of all homes in the County would be retrofitted and/or receive solar installations by 2020. The volume of contractual assessments needed to support this level of participation is \$24.0 million/year.

Figure 3. Three Estimated Annual Participation Scenarios





## 4. Program Administration and Design

### *Can the County design and administer an effective program?*

The way in which an approved AB 811 assessment district and financing program is administered is not governed by statute; rather, it is established at the discretion of each jurisdiction. This section assesses the benefits and challenges of several organizational options for program administration, and discusses associated costs, funding strategies and program design elements based on the most feasible programmatic approach.

### **A Regional Approach**

The programmatic success achieved in both Sonoma County (California) and Boulder County (Colorado) illustrates the benefit of a large potential customer base.<sup>30</sup> As described in the case studies earlier, Sonoma County expects just 3 percent of its 112,000 homeowners to participate in its program this year. Clearly, 3 percent of the 112,000 owner-occupied homes in Sonoma County allows for greater volume of contractual assessments, and consequently a more favorable rate in the bond market, when compared to 3 percent of households in a smaller jurisdiction. Similarly, the project team forecasts that if 3 percent of the 76,400 owner-occupied homes in both incorporated and unincorporated parts of the County were retrofitted by 2020, the program would achieve appropriate scale and would be sustainable.

Given the importance of achieving this scale, establishing a regional approach among neighboring jurisdictions, and particularly with the County's incorporated cities, is critical. In addition to ensuring adequate demand and associated volume of contractual assessments, larger programs have a greater likelihood of achieving necessary economies of scale, thereby lowering administrative costs, and increasing the cost-effectiveness of delivering communitywide energy savings. To help foster this regional approach, the project team has engaged in significant outreach activities with local stakeholders and regional counterparts. As a result of these efforts, all incorporated cities within the County have expressed positive interest in program participation, given the Board's direction to pursue implementation. In addition, the project team continues to work with Ventura County and San Luis Obispo County, which are both currently analyzing implementation options for municipal energy financing programs. In fact, San Luis Obispo County has designated approximately \$160,000 of the \$2 million in EECBG it received directly from the US Department of Energy for municipal energy efficiency and solar financing district implementation. Both jurisdictions have expressed an interest in collaborating with the County to develop a consistent programmatic approach, which would provide program predictability and simplicity for the benefit of private contractors and workforce development programs servicing the tri-county area.

### **Organizational Structure Options**

The degree to which inter-jurisdictional collaboration and participation is fostered, both now and in the future, ties directly to the organizational structure used to administer a program. Ultimately, these organizational decisions impact the degree of control the County exercises over a program, the level of

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<sup>30</sup> Program details at <http://www.sonomacountyenergy.org/> and <http://www.bouldercounty.org/bocc/cslp/cslpintro.html>

customer service program participants can expect, and local flexibility to change the program, given best practices and lessons learned.

As noted previously in the case studies, various organizational frameworks are available to administer a program; however, the three primary options include: 1) a joint powers authority, 2) a County-managed program, or 3) a statewide program. Each of these offers various advantages and challenges; accordingly, to select the choice best suited for Santa Barbara County, the project team developed a set of categories that reflect the criteria necessary for successful program implementation. Table 3 shows a matrix of the criteria used.

### Joint Powers Authority

A Joint Powers Authority (JPA) is an institution permitted under California law that allows two or more public authorities to operate collectively in circumstances where an activity transcends the boundaries of existing public authorities, or to achieve economies of scale. Sonoma County used a JPA to implement its Energy Independence Program because its program merged the financing capabilities of two separate entities, the County and a Water Agency. For Santa Barbara County, a JPA could be used to implement the program and combine the collective financing capacity of participating jurisdictions. This would allow for a large program, capable of offering a high volume of funding and achieving greater energy savings, while at the same time centralizing costs and avoiding organizational redundancies.

Despite these benefits, there are some important challenges associated with creating and operating a JPA. Namely, the formation of a JPA involves a legal process that would require set-up time. Moreover, JPAs require a separate operating Board of Directors and shared decision-making among partner organizations, which would create delays in programmatic implementation or changes to reflect lessons learned and best-practices. In addition, the County’s outstanding credit rating may be diluted by jurisdictions with lower ratings, which would impact the permanent financing rate. As illustrated in Section 5: Financing Plan, the County has already identified feasible interim financing sources; therefore, the JPA does not appear necessary for successful financing.

Table 3. Organizational Structure Criteria Matrix

Required Program Attributes	
1.0 Governance	
1.1	Clear decision-making authority
1.2	Easy for other agencies to participate
1.3	Minimal bureaucracy; business-like approach
1.4	Regional approach supported
1.5	Representative of statewide leadership
2.0 Program Design & Administration	
2.1	Aligned with Board policy regarding administration
2.2	Reflects local standards and needs
2.3	Includes energy efficiency and renewables
2.4	Includes water conservation
2.5	Ability to modify or enhance program
2.6	Ability to tailor customer service
2.7	Appropriate staff availability
2.8	Ability to supplement with effective QAQC
2.9	Timeliness of program set-up
2.10	Modest level-of-effort required for set-up and admin
3.0 Financial Criteria	
3.1	Admin cost-effectiveness (staffing, counsel, etc.)
3.2	Availability of ARRA funds for admin
3.3	Mitigates risk to County General Fund
3.4	Cost-effectiveness of long term financing
3.5	Minimal direct long term financial risk to County
3.6	Control over assessment contract interest rates
3.7	Exposure to interest rate / cash flow benefits or costs
4.0 Legal Criteria	
4.1	Ability to mitigate Prop 218 issues
4.2	Ability to mitigate senior lien issues
5.0 Economic Vitality	
5.1	Supports local workforce and job development
5.2	Ability to capture ARRA funding for the region

## **County Managed Program**

Another option is to operate the program under the direct control of the County. As described below, three options are available to operate an “in-house” organization.

### *County Department*

Palm Desert opted to use city staff to operate its Energy Independence Program. Similarly, Santa Barbara County could run its program by creating a new division under the Department of Housing and Community Development, and hiring additional County staff for operational purposes. Using an existing County department to oversee the program would provide the most streamlined and least costly approach to implementation, as no new legal entity would be formed. Additionally, the County would retain full control and authority over ongoing program design and operations, and would not be vulnerable to the financial problems associated with other jurisdictions. In addition, the County’s role as the financing administrator would enable it to design a program that is wholly reflective of local preferences, and is sustained through an interest rate spread. Of course, this benefit comes with some associated risk, but that risk can be mitigated using strategies discussed in the following section. Finally, a County-managed program allows residents physical access to staff members who can provide customized customer service.

### *Arm’s Length or Contract for Services*

A jurisdiction could also opt to create an arm’s length organization to administer its program, such as a non-profit 501(c)3, an enterprise corporation, or a contract with a third party to administer all programmatic needs. This approach is somewhat similar to Sonoma County’s JPA model, except the County would retain full authority, rather than sharing authority with other local agencies or jurisdictions. An arm’s length entity would have increased management flexibility, due to its separation from the County. However, this approach would require additional start up efforts, which could be costly and may delay program launch, including the creation of a Board of Directors and establishment of a new legal entity. While the third party contract for services option would mitigate these challenges, and would offer management flexibility, there are currently very few vendors with established records in performing this type of work.

## **Statewide Program**

To address a significant barrier for small and moderately sized jurisdictions in achieving adequate programmatic scale, California Statewide Communities Development Authority, also known as California Communities, has been working with Renewable Funding, LLC to establish a statewide turnkey program, called CaliforniaFIRST. CaliforniaFIRST aggregates contractual assessments through a consistent statewide program to help such jurisdictions access the bond market. On October 22, 2009, Renewable Funding announced that 14 counties would be accepted into the pilot program, and a second pilot program will begin in July 2010. The project team has been in communications with Renewable Funding for several months, and continues to follow the development of the statewide program.

According to these communications, the CaliforniaFIRST program would charge a jurisdiction the size of Santa Barbara County \$20,000 annually to opt into a pilot program. While this approach eliminates direct financial risk to the County, there are several uncertainties and unfavorable attributes. First, the launch of the program is still contingent upon several outstanding legal hurdles and approvals, including judicial validation. Additionally, program details are unclear, particularly those relating to quality assurance and control. Of particular concern, little information has been made available concerning the rates at which

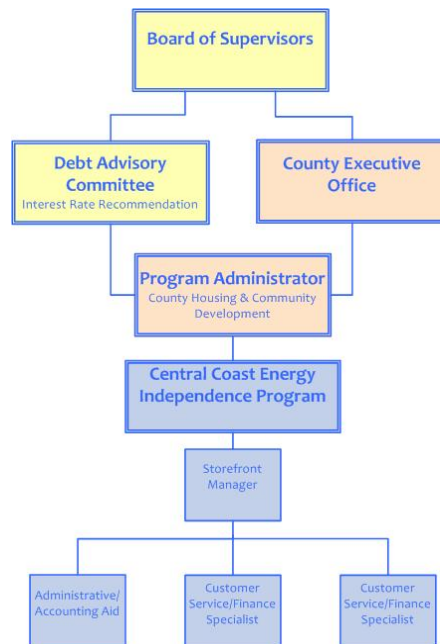
contractual assessments would be provided. The demand study conducted by CaliforniaFirst indicated the statewide program’s interest rate could go as high as 9 percent.<sup>31</sup>

Moreover, the statewide program would offer no local physical presence or “storefront” to provide customized customer service. Property owners in the County would only have access to a website and toll free number to address their questions and needs. Even without customized customer service, Renewable Funding estimates that the County would have to be prepared to provide at least half a full-time equivalent employee to administer the program. Because the County would not administer the financing process, it would have no access to interest rate spread that could otherwise help fund local programmatic costs.

## Recommended Programmatic Approach

Based on the analysis of assumed benefits and risks outlined above, the project team concludes that a regional program is best housed within a division of County Housing and Community Development (HCD). Under this approach, as shown in Figure 5, a Program Administrator would oversee the program, called the “Central Coast Energy Independence Program” (CCEIP), with guidance from other County staff members. In order to establish necessary County oversight and accountability, the Program Administrator will report to both the County Executive Office and the Debt Advisory Committee (DAC). The DAC is comprised of a Board member, the Auditor/Controller, the Treasurer/Tax Collector, the CEO, and County Counsel and is charged with providing recommendations to Board of Supervisors on leases, bond issuances and other debt related matters. The DAC would be consulted regularly to provide a recommendation to the Board regarding the program interest rate for participants. The AB 811 Project Team and the existing County Interagency Building Energy Efficiency Working Group would continue to provide technical support on allowable technologies and complementary programs (as described in Section 2, on page 7).

Figure 4. Central Coast Energy Independence Program Organizational Structure



31 Renewable Funding California Communities CaliforniaFIRST Program Data and Demand Analysis (September 16, 2009)

Noting the recommended contractual assessment volume described in Section 5: Financing Plan, the project team recommends that the program launch initially with up to 4 staff members. The day-to-day functions of the CCEIP would be managed by the Storefront Manager, who would also act as a key liaison to various County staff advisors. The Storefront Manager's responsibility would include organizational development, staff hiring, and ongoing office management, training, marketing/outreach, and data tracking. This person would manage 3 full-time staff with specialized lending knowledge and customer service skills. Specialists would provide advice and assistance to interested participants and administer title check, application review, contract processing, and disbursement, as well as perform accounting duties. An Administrative Assistant's responsibilities would include answering phones, maintaining files, scheduling appointments and assisting with application processing. Staff would be housed in two storefront locations, one in North County and one in South County.

The project team estimates that establishment of a municipal solar and energy efficiency finance program will require start-up costs of approximately \$170,000. Start-up costs would consist primarily of bond counsel and underwriter services necessary to establish appropriate financial documents. Ongoing administrative expenses of approximately \$1 million, depending upon the size of the program, would include:

- Initially four full time program staff with specialized lending knowledge and customer service skills to service up to 400 contractual assessments per year in the initial phase, and 570 applications.<sup>32</sup> As the program grows, staff levels are expected to escalate to seven full time program staff.
- A reserve fund to preserve programmatic integrity and risk mitigation options.
- Marketing and advertising materials, including a strong internet presence.
- Rent and overhead for storefronts in the northern and southern regions of the County.

A description of how start-up and ongoing administrative costs will be funded is provided in Section 5: Financing Plan. Based on current market dynamics, contract volume estimates, and projected administrative costs, the program is forecasted to have minimal impact on County resources. In every analyzed scenario, the goal is to provide sufficient resources in the program's reserve fund to adequately address any forecasted net program losses. Moreover, contractual assessments would continue providing regular income for up to a 20 year period, providing additional assurance that losses would be covered.

Administrative costs are likely to increase or decrease incrementally with program participation, as staff and other resources would fluctuate in alignment with the demand for new contractual assessments. As illustrated by the pro formas included in Appendix B, three scenarios have been developed to provide a realistic, yet conservative, analysis of the costs and income forecasted for a municipal energy financing program. The analysis of these scenarios illustrates the sensitivity of program performance in relation to the demand for contractual assessments.

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<sup>32</sup> Sonoma County reports that approximately 70 percent of funding applications are approved, meaning that 30 percent of the contractual assessments processed are not actually funded. No interest income is collected from these unfunded applications, even though staff resources have been committed to processing associated paperwork and interacting with potential customers.



## Elements of Program Design

The Draft Program Administrative Guidelines Report that accompanies this feasibility study provides a significant level of detail about preliminary program design. The elements summarized below reflect the primary aspects of program design, and reflect the influence of the California Energy Commission’s grant requirements for the use of ARRA funds. These funds will be important for offsetting program administrative costs and protecting the County’s General Fund (described in Section 5: Finance Plan).

- **Loading Order:** Programs must follow the State’s formally adopted “loading order,” which requires property owners to install energy efficiency improvements in advance of solar or other renewable energy improvements. In fact, programs will be required to demonstrate that retrofits result in a 10 percent reduction in total building energy use prior to allowing the installation of on-site solar or renewable energy improvements.
- **Eligible Activities:** These include individual energy efficiency improvements (i.e., new attic insulation, weather seals, radiant barriers, windows, etc.), comprehensive energy efficiency retrofits (multiple energy efficiency improvements), renewable energy improvements (i.e., solar photovoltaic panels, solar water heaters, solar attic fans, etc.), and water conservation activities (irrigation controls, grey water systems, low flow toilets, etc).
- **Home Energy Ratings or Audits:** To enable consumers to understand costs and benefits and to help prioritize home improvements, the ARRA grants strongly encourages that Home Energy Ratings or Audits be an included program component. While financing for initial improvements is allowed without a local audit program, jurisdictions are to provide a strategy for how the transition towards comprehensive or “whole-home” retrofits, including energy audits, will be achieved within one year of receiving an award. The CEC views whole-home retrofits, whereby comprehensive diagnostics are performed and improvements are made to residential property, as a fundamental strategy for achieving the goals of AB 32.
- **Quality Assurance:** Applicants are to follow local permitting processes and ensure that improvements have been appropriately installed. In addition, where feasible, programs are to require submittal of electricity and gas bills over a period of two years to demonstrate energy savings. As discussed, existing County programs, such as the Planning & Development Innovative Building Review Program would be leveraged to address this quality assurance requirement.<sup>33</sup> In fact, Planning & Development meet with Sonoma County and the City of Santa Rosa on September 16, 2009 to discuss quality assurance and permitting issues as part of the ongoing program design process.
- **Participant Qualification:** Screening processes are strongly encouraged to ensure that participants are capable of paying off their contractual assessment. While AB 811 does not require a credit check for program participation, metrics available through title checks and other means are to be used to determine creditworthiness. These include requiring a specific loan-to-value ratio, as well as ensuring that property taxes have been paid in full and on time.
- **Property Type:** Improvements to both residential and commercial property are allowed. Given the experience of other jurisdictions, the majority of program participants are expected to be residential property owners.

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<sup>33</sup> Planning and Development will not be responsible for demonstrating energy savings.

## 5. Financing Plan

*Can the program become self-sustaining without creating a significant risk to the County?*

### Financing Options

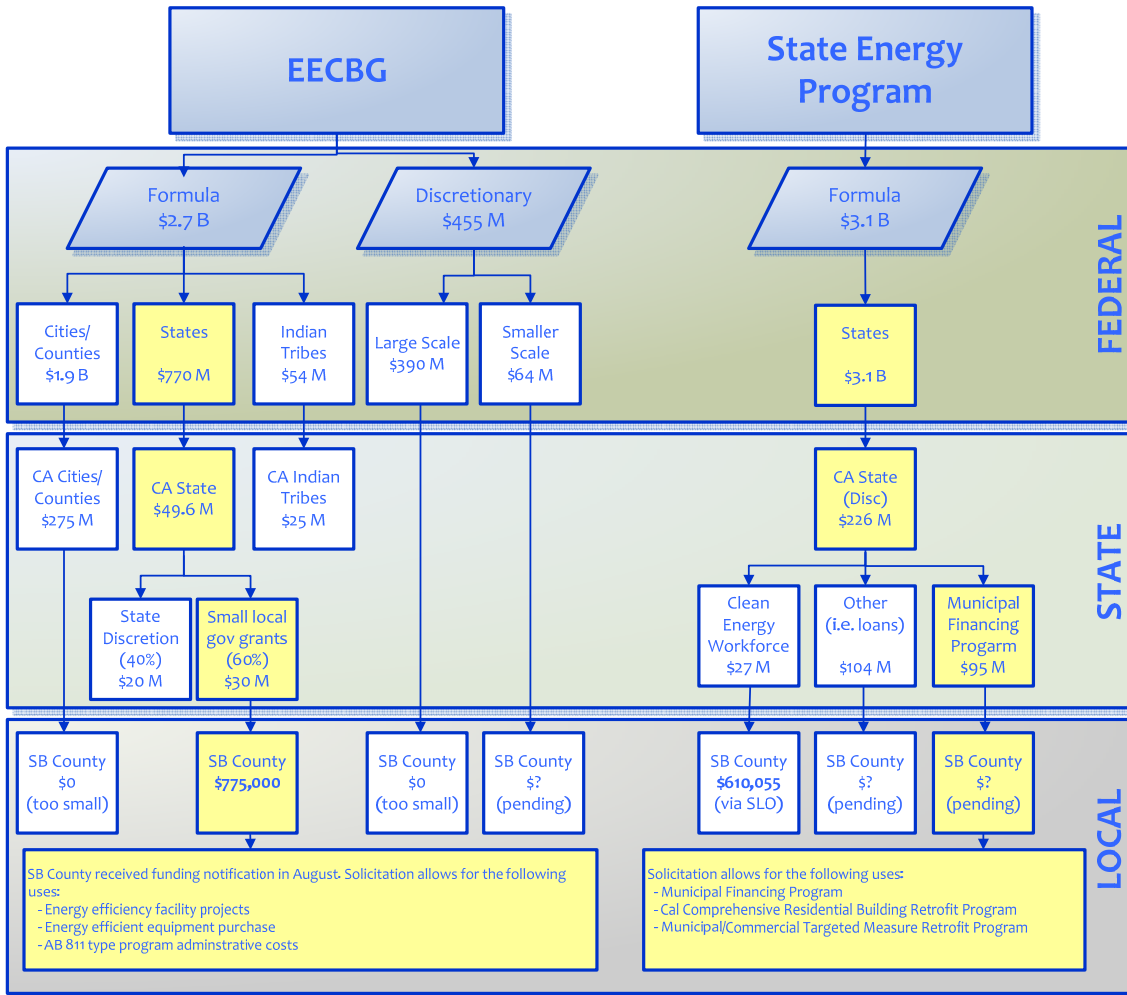
With program administration and design established, contractual assessments would be processed for property owners to purchase and install energy efficiency and solar improvements. Upfront financing for these assessments would first be provided through a short term, or interim, source, in most cases using County funds. The difference or “spread” between the cost of interim capital to the CCEIP and the interest rate on the assessments paid by property owners would produce income necessary for administering a program. However, for a program to be sustainable and capable of funding contracts into perpetuity, interim resources must be converted to long-term financing once an appropriate aggregate funding volume has been achieved and the costs of debt issuance could be offset. This conversion to long-term financing would replenish internal sources of capital and, as discussed later, could continue to provide income for ongoing program administration, if market conditions are favorable. Options for the CCEIP to meet both interim and long-term financing needs are discussed in more detail below.

#### *Start-up Funding Options*

A significant portion of the administrative costs noted above would be required upfront, prior to the receipt of any programmatic revenue via grants or income from contractual assessments. Therefore, negative cash-flow would be expected during the first and potentially second year of implementation. Resources made available through ARRA could offset these upfront costs.

As shown in Figure 6, the federal Department of Energy has made over \$6 billion in ARRA funding available to fund energy conservation related initiatives nationwide through the Energy Efficiency and Conservation Block Grant (EECBG) and the State Energy Program (SEP). The County is eligible for several of the state funding pass-through opportunities provided by the CEC, highlighted in yellow on Figure 6. Of relevance to the CCEIP, the CEC has made \$95 million available through the SEP in support of ongoing state and local efforts to launch AB 811-type programs. The CEC’s solicitation consists of a multi-pronged approach, focusing funding towards municipal program development and financial support. Proposals must request between \$2 and \$20 million in funding, and are due November 30<sup>th</sup>. In addition, the County has been allocated over \$772,000 in Energy Efficiency and Conservation Block Grant (EECBG) funds from the CEC, which can be used to offset administrative costs for program implementation. The County plans to allocate the full amount towards program administration. Of course, these funding opportunities come with an extensive set of requirements for program design. These are addressed in the next section.

Figure 5. ARRA Energy-Related Funding Opportunities



It is important to note that ARRA resources are provided through the CEC on a “reimbursement” basis, meaning that the County must first pay for the necessary programmatic start-up and administrative costs, and then submit follow-up documentation for reimbursements to the CEC. Accordingly, to address the need for upfront resources, a short-term County General Fund advance receivable for approximately \$1 million pay for bond counsel, hire personnel, establish a reserve fund, develop marketing materials, and open the storefronts needed to generate positive cash-flow. The County will direct the \$772,000 in proceeds from the EECBG grant, along with any funding awarded by the SEP funds, to reimburse the General Fund in a timely manner. Without a doubt, ARRA resources would increase program feasibility and reduce the risk to the General Fund. Since the overarching programmatic intent is to provide services to property owners while protecting the financial integrity of the County, it is recommended that a new enterprise fund be established to operate the program, should the Board direct staff to move forward with implementation on December 1, 2009. This would enable maximum protection of the General Fund, and would support the financing process, described in further detail below.

### Interim Financing Options

Funding opportunities and credit provided through banks, investors, grants, and internal County funds all provide viable means of supporting the initial contractual assessments made with residential and



commercial customers through the CCEIP. Of these available options, three have been identified as most feasible for providing consistent and predictable sources of interim capital necessary to establish an adequate volume of contractual assessments: Internal Service Funds, the County Treasurer’s Investment Pool, and the General Fund (See Table 2). A fourth option – the establishment of a COP/Letter of Credit with a bank – has been used by the City of Palm Desert. However, given the associated nuances, this option currently holds limited feasibility for Santa Barbara County. Each option is discussed in more detail below.

#### *Internal Service Funds (ISFs)*

Internal Service Funds (ISFs) are established to account for services provided to the County and other governmental agencies. While all ISFs have been considered, the two largest, the Vehicle Operations and Maintenance Fund and the Workers Compensation Fund, have cash balances that could provide an interim funding source for program participants. The current cash balances in the Vehicle Operations and Maintenance Fund and the Workers Compensation Fund are \$14.5 and \$29.9 million, respectively. Revenues primarily consist of charges to user departments for services rendered. The rates charged are standardized, based upon an estimated cost recovery basis, and the Workers Compensation Fund rates are based upon an annual actuarial analysis. The setting aside of a portion of the ISFs – for example, less than 10 percent – could provide some of the capital required for initial CCEIP contractual assessments, without compromising the County’s ability to support current cash needs for related activities of the ISFs. As a result, approximately \$5 million could be set aside for the CCEIP. Notably, funds provided by ISFs must be re-paid within three years, per the State Controller’s Guidelines. Effectively, this means that the CCEIP must seek to access another source of financing after three years, if funds from the ISFs were used.

#### *Santa Barbara County Treasurer’s Pool*

The Santa Barbara County Treasurer manages and invests cash deposits on behalf of the County, school districts, community colleges, and special districts via the Treasurer’s Investment Pool. Investment decisions are governed by State law and through the Treasurer’s Investment Policy, which is adopted annually by the County Board of Supervisors. Approximately \$900 million is managed in the County Treasurer’s Pool. No more than 5 percent – approximately \$40 million – could be set aside for funding initial contractual assessments made through the CCEIP. The assessment bond or note issued to the Treasurer’s Investment Pool would need to meet the Treasurer’s fiduciary responsibility to all pool participants. In addition, it would need to pay a market rate of interest, which is currently 3.5 – 4.5 percent, and have a term in compliance with the Treasurer’s Investment Policy. Investments purchased may not exceed five years; therefore, by the fifth year, the CCEIP would be required to pay off the assessment bond or note.

#### *General Fund Advance*

The General Fund is the County’s primary operational fund. In other jurisdictions, such as Palm Desert, contractual assessments have been made with property owners directly through General Fund resources. While this is not a feasible scenario for Santa Barbara County, the General Fund does provide a mechanism to transfer funds into the County’s municipal energy finance program, while also providing the flexibility to respond to market conditions. Short term advancements would be made from the General Fund to the program in increments up to \$3 to \$5 million. Once this threshold is reached, the County municipal energy financing program could sell an assessment district bond or note to the Treasurer’s Investment Pool, repay the General Fund, and resume financing contractual assessments. Once \$15 to \$25 million in total interim financing is achieved, permanent financing would be put in place. Notably, this advanced accounting procedure makes capital available for interim funding to customers, while also preserving

other programs funded through the General Fund. Interest charge would be the same as the Treasurer’s Pool rate.

**COP/Bank Letter of Credit**

A final consideration for providing interim or initial capital to fund contractual assessments made through the CCEIP is by obtaining variable rate financing through a letter of credit with a bank. The City of Palm Desert has used this approach to finance approximately \$5 million through its program by issuing a general fund-backed structure that is similar to a Certificate of Participation (COP). A unique nuance associated with Palm Desert’s approach is that the issuance is reliant upon a bank letter of credit, which sets the interest rate and funds the proceeds received by the City. Interviews with underwriters have indicated that this structure would be more costly for counties, who typically have smaller reserves than cities. Because of these comparatively smaller reserves, investors may require a higher rate of interest from counties. In addition, this structure exposes the issuer to market interest rate risk over time and to the associated bank’s credit rating risk. Accordingly, this is not currently considered an advisable option for interim funding.

Table 4. Sources of Interim Capital

SOURCES OF CAPITAL	AMOUNT AVAILABLE FOR CCEIP	ISSUES	COST
Santa Barbara County Treasurer's Investment Pool	\$40 million (1)	Must be repaid within five years	3.5 - 4.5 percent
Santa Barbara County Internal Service Funds	\$5 million (2)	Must be repaid within three years	2 - 3 percent
Santa Barbara County General Fund	\$3 - \$5 million	Advance receivable only; accounting technique for transfer of funds	2 - 3 percent

Notes:

- 1. Represents approximately 5% of the Treasury Pool
- 2. The ISFs have a total fund balance of approximately \$60 million

**Long-term Financing Options**

For a program to become sustainable on a long-term basis, interim or initial capital sources funding the contractual assessments, such as the ISFs, the Treasurer’s Investment Pool, and the General Fund must be “refreshed” by selling aggregated CCEIP contracts to investors. Following such an issuance, the CCEIP could then begin redrawing capital from identified interim source(s) to make new contracts with property owners, until another bond sale is feasible. Such long-term financing options become viable when the total amount of contractual assessments issued to property owners reaches a marketable level, and adequate coverage of administrative and debt issuance costs has been achieved.<sup>34</sup> Conversations with other jurisdictions and financial institutions, including Sonoma County, bond counsel, and various underwriters, have indicated that the minimum level for a public offering is approximately \$10 to \$15 million in contractual assessments. The goal of the CCEIP would be to seek long-term financing prior to reaching a \$25 million threshold in total contractual assessments.

Given this context, as of November 2009, three long-term financing options have been identified as most feasible, including: 1) a land secured taxable issuance, 2) a General Fund-backed issuance, such as

<sup>34</sup> The cost of issuance is typically 2 – 3 percent. For example, a \$20 million issuance would cost \$400,000 - \$600,000.

Certificates of Participation, and 3) a private placement issuance. At this time, such issuances are taxable, and each is discussed in greater detail below.

#### *Land Secured Issuance*

Land secured municipal debt is typically used to finance improvements to property, such as the installation of a new sewer line or a new street. Those individuals that benefit from new public improvements are usually the ones that are required to pay off the debt. Through these arrangements, the property owner agrees to a lien on the property that is paid off over time through an annual assessment on the property tax bill. Accordingly, AB 811 enables local jurisdictions to issue voluntary assessment district bonds, through which the lien is superior to other obligations held on the participating property.<sup>35</sup> In essence, this structure aims to lower the risk associated with purchasing assessment district bonds. Nonetheless, the taxable bond market is more familiar and comfortable with large (\$100 million and up) corporate issuances, and has shown some hesitancy, given that AB 811-related bonds are new.

Even so, underwriters have indicated that a small pool of investors might be interested in purchasing CCEIP bonds, structured as a land secured issuance. But, given the lack of general awareness regarding AB 811 bonds, current rates are estimated to not be less than 8 percent. Underwriters indicated that, as investors become more familiar with AB 811-type issuances, comfort, and thus, demand, is likely to improve. Accordingly, the interest rate on the bonds should decline in the near future as the market becomes educated and more accepting of this new type of municipal program debt. Moreover, if proposed changes to the US Tax Code are enacted allowing CCEIP issuances to qualify for tax-exempt status or for a Federal guarantee, the rates would be more favorable to issuers.<sup>36</sup>

#### *Certificates of Participation*

The issuance of Certificates of Participation (COPs), would provide another method of converting interim capital to long-term financing. To issue COPs, the General Fund would be obligated to cover any losses, in the event payments were insufficient to cover the total debt service.<sup>37</sup> However, with that General Fund backing, this option could result in significantly lower interest rates. The issuance would be taxable and the rates would be higher than what the County typically pays for a COP, but better than for the taxable land secured issuance, discussed earlier. A federal guarantee, if implemented, would also considerably lower the interest rate required by investors.

#### *Public versus Private Placement Issuances*

Given the costs associated with a public issuance, smaller issuances are generally less cost-effective. In fact, some small issuances are not economically feasible. This is because most costs of an issuance are fixed; even the variable costs have minimum amounts needed to cover the services provided by underwriters, bond counsel, and rating agencies. However, a private placement of an issuance to certain investors can be less costly and perhaps feasible. For example, private placements with banks or other entities, such as retirement plans or deferred compensation plans could be pursued. Given that AB 811

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<sup>35</sup> Note that this is subject to validation proceedings, as discussed in Section 6.

<sup>36</sup> Currently, an issuance would be taxable, due to the Internal Revenue Code “private activity” regulations. A taxable issuance would demand a higher rate of interest paid to investors. HR 3525, introduced by Congressman Mike Thompson of Sonoma on July 31, 2009, would change the status of bonds sold through energy efficiency and solar financing districts from taxable to tax exempt. This could significantly lower the interest rate associated with taking bundles of contractual assessments to market, thereby increasing the “spread” and assisting program viability. Of note, these issuances are already exempt from State income tax requirements.

<sup>37</sup> COPs are a type of leasing transaction. Demised premises of a value equal to the issuance amount would be required for a COP lease financing.

assessments have senior lien status, and are therefore relatively low risk investments, underwriters have noted that this could be an attractive option. Moreover, preliminary conversations with banks have indicated interest in purchasing such an investment, and market conditions would determine the associated interest rate.

In summary, the ability to access long-term financing through these three options is likely, but nonetheless, speculative. Although the financial markets are very familiar with municipal issuances such as Mello Roos bonds, Redevelopment Agency bonds, and General Obligation backed bonds, new financial products and programs, such as AB 811-type municipal financing programs, require time to mature within the broader investment community. Notably, incentives and regulations by state and federal agencies can assist in this process, and this is increasingly becoming the case with municipal energy financing programs. In fact, the US Department of Energy and others have taken measures, discussed in further detail below, to assist the markets adaptation to this innovative type of municipal financing. In addition, an increasing number of local government agencies that are either interested in implementing or have already established municipal energy financing programs are pushing investment banks and others in the financial community to provide solutions. Given this momentum, those local agencies that are well-prepared, with issues vetted and programs designed, stand to benefit significantly.

## Important Financial Considerations

In addition to identifying sources of capital for funding CCEIP contracts, other issues could impact the relative success and sustainability of the program. A thorough understanding of these issues and strategies to mitigate potential risks is illustrated below.

### ***Interest rate risk***

Changes in interest rates – both for interim and long-term financing – could significantly impair or enhance the ability to sell CCEIP contractual assessments to investors. As indicated in Table 4, current Treasurer's Investment Pool rates are approximately 3.5 percent for products similar to a CCEIP assessment note or bond. This means that funds could be purchased for 3.5 percent, and sold to customers for 7 percent, creating a 3.5 percent “spread.” This spread would be needed to cover the administrative costs associated with the program; however, over time the availability of grants or other resources are expected to minimize the reliance on this spread. Regarding long-term financing, if investors are willing to pay a rate lower than the rate for assessment contracts with property owners, the CCEIP would receive a positive spread and additional income. For example, a long-term financing spread of approximately 1 percent on a \$20 million issuance would provide an additional \$200,000 every year to support the program. These funds would likely be placed into the reserve to support future issuances. Conversely, market dynamics could also drive investors to demand a greater interest rate than what is provided via contractual assessments made to program participants. In this case, the CCEIP would only be required to hold contracts until the market improved, or sell at a loss.

One method to mitigate this risk is to make variable rate contracts, with fixed rates updated annually by the Auditor/Controller, based upon a common index. To protect consumer interests if variable rate contractual assessments were pursued, proper disclosure and documentation would be required.

A second method to mitigate risk could involve the use of subsidies by the state or federal government. Of particular interest is the US Department of Energy's introduction of a new bond product called Qualified Energy Conservation Bonds (QECBs). QECBs were authorized in the Energy Improvement and Extension Act of 2008 with the policy goal of reducing the interest rate risk to local agencies pursuing energy efficiency and renewable energy projects.<sup>38</sup> QECBs are tax credit bonds, whereby the borrower (i.e., the CCEIP) pays only principal, and the coupon interest rate is zero. The investor receives a fixed tax credit from the Department of the Treasury.<sup>39</sup> The market may require a supplemental interest rate if the US Treasury sets the tax credit lower than prevailing market conditions require. Over \$3.2 billion has been allocated to nationwide, and the CCEIP would need to pursue an application to access this funding source. Without question, the benefits of accessing the federal QECB program are significant, as the bonds directly reduce both the cost of money to finance contractual assessments, but also the relative risk to the County. The underwriting community and bond counsel are currently working with the US Department of Energy to determine if QECBs could be used for AB 811 programs. If a positive determination was made and the CCEIP was successful in receiving an allocation, financial feasibility to be greatly enhanced and interest rate risk would be erased. Given current market dynamics and investor preferences, the CCEIP would be required to pay – at most – 1 to 2 percent to access long-term financing sources. If contractual assessments were given to property owners at 7 percent, this would equate to a 5 to 6 percent spread for the CCEIP.

Other risk mitigation measures being pursued include the pending establishment of a national loss reserve fund, whereby the US Department of Energy would guarantee all municipal energy finance programs and protect against property owner default.<sup>40</sup> Related, a tri-agency consortium including the US Department of Energy, the Treasury Department, and the Department of Housing and Urban Development have recently issued guidelines for underwriting and program participant qualifications regarding municipal energy financing program nationwide.<sup>41</sup> Both federal policy interventions are geared to provide increased consistency and stability among programs nationwide, thereby bolstering the investment community's confidence in debt issued by programs like the CCEIP. These federal actions are also aligned with the policy direction put forth by the California Energy Commission, which has targeted a significant portion of its federal ARRA funding towards incentivizing the creation and implementation of municipal energy financing programs by local jurisdictions. Collectively, state and federal measures are beginning to induce widespread interest among local jurisdictions. Accordingly, timing program launch is increasingly critical. The County's ability to be at the forefront as market demand gains momentum should help attain favorable issuance terms and investment rates when seeking to obtain long-term financing.

### **Prepayment**

A common provision in many loan agreements is that customers are allowed to pay off the contractual assessment in full, prior to the final maturity date. If the CCEIP were to allow prepayment of contractual assessments, there could be implications for coverage of administrative costs that have been built into the interest rate and payment streams for previously issued debt. Given the benefits and convenience of

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<sup>38</sup> Enacted in October 2008

<sup>39</sup> As of October 2009, the tax credit rate was approximately 5.88 percent, and the term was 16 years. Since this is a relatively low tax credit rate, issuers have paid a supplemental rate of 1 to 2 percent to encourage investors to acquire their tax credit bonds.

<sup>40</sup> HR 3836

<sup>41</sup> The White House PACE Principles and the report Recovery Through Retrofits can be accessed at:  
[http://www.whitehouse.gov/assets/documents/Recovery\\_Through\\_Retrofit\\_Final\\_Report.pdf](http://www.whitehouse.gov/assets/documents/Recovery_Through_Retrofit_Final_Report.pdf)  
[http://www.whitehouse.gov/assets/documents/PACE\\_Principles.pdf](http://www.whitehouse.gov/assets/documents/PACE_Principles.pdf)



offering a prepayment option for program participants, strategies to mitigate associated risks would be built into the CCEIP program. For example, establishing an adequate reserve fund could provide a buffer needed to cover administrative costs. In addition, customers could be charged fees for prepayment options or callable debt could be issued, such that providers of long-term funding are compensated (i.e., given a higher interest rate) for the fact that anticipated income may not last the entire contract term.

### ***Minimums and Maximums; Qualified Participants***

To reduce the risk of default and property owner foreclosure, existing municipal energy finance programs typically include participant qualification measures that demonstrate the sustained ability to amortize contractual assessments. The CCEIP would have similar steps in place, for example requiring that adequate equity exists in the subject property and that property owners have consistently paid property taxes on time. Best practices show that contractual assessments should be limited to approximately 10 percent of assessed value, market value, or a combination of the two. In addition, establishing minimum and maximum contract sizes helps ensure that administrative costs are covered, while maximizing the level of funds available for the public. For example, the statewide CSCDA program has proposed establishing a minimum contract of \$2,500 for residential property, and a maximum of \$75,000. Given the difference in scale, commercial property owners typically will require a larger contract, when compared to residential property, to make effective improvements. Accordingly, the cap for commercial property is usually larger than that for residential property; however, more stringent qualifications are also required. For example, the CSCDA program requires that commercial property owners obtain written notification from their mortgage holders indicating support for participating in the program. In Sonoma County, commercial property owners are required to obtain onsite energy audits to corroborate the effectiveness of proposed improvements.

### ***Rate Competitiveness***

Determining the appropriate interest rate, given programmatic demand is important. In some cases, potential customers may be driven purely by economic rationale, and the ability to obtain the cheapest form of financing is the highest priority. With median personal credit (i.e., credit cards) rates in the 12-15 percent range and Home Equity Lines-of-Credit in the 8 – 9 percent range, other sources of available financing offer rates that rival, but are unlikely to out-compete rates available via municipal energy finance programs. It is also important to note that municipal energy finance programs offer benefits that traditional sources of credit do not. For example, assessment contracts and associated repayment obligations can transfer from one property owner to the next, program qualification is based on equity in the property not personal income, the interest portion of repayments is wholly tax deductible, and longer repayment periods are available. Of note, a statewide demand study has illustrated that potential customers would be willing to pay to obtain these benefits – in some cases, up to 9.5 percent for a contractual assessment.<sup>42</sup> These factors indicate that demand would be present for CCEIP assessments; even in the case that less costly consumer credit is available.

### ***The Teeter Plan***

The Teeter Plan provides California counties with an optional alternative method for allocating delinquent property tax revenues. Using the accrual method of accounting under the Teeter Plan, counties allocate

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<sup>42</sup> Renewable Funding California Communities CaliforniaFIRST Program Data and Demand Analysis (September 16, 2009)

property tax revenues based on the total amount of property taxes billed, but not yet collected. The Teeter Plan allows counties to finance property tax receipts for local agencies by borrowing money to advance cash to each taxing jurisdiction in an amount equal to the current year's delinquent property taxes. In exchange, the counties receive the penalties and interest on the delinquent taxes when collected. For counties not under the Teeter Plan, interest and penalty are allocated to all agencies based on their pro rata share of the delinquent property tax. However, the County retains the penalty on delinquent property taxes if the delinquency is cleared up within the same fiscal year. As part of the CCEIP, taxes would be teetered to ensure collections on a timely basis by the assessment district.

## Recommended Financial Approach

In considering these financing options, a structure that would allow the County sufficient flexibility to meet local demand and comply with applicable State laws regarding debt issuance is required. As previously discussed, a County-managed CCEIP would provide the greatest degree of program control and the ability to tailor a program to meet local needs and preferences. Accordingly, to fund contractual assessments for such a program, the recommended course of action includes authorizing, in increments of \$3 – \$5 million, advanced receivables from the General Fund to an established CCEIP enterprise fund for property assessment contracts. The CCEIP enterprise fund would pay the pool rate to the General Fund, thereby ensuring that the CCEIP does not pay an excessive cost for capital, while also ensuring the General Fund's interest gains are not impacted. Funds would be drawn as needed, given the rate of establishing contractual assessments with property owners. Once approximately \$3 – \$5 million in assessments had been established, the CCEIP would issue a short term assessment district bond or note to the Treasury Pool. Notes would be consistent with the Treasurer's Investment Policies, have a maturity of up to 5 years, pay a market rate of interest, and would include a "call provision," so that long-term financing may be pursued, given a favorable environment. Proceeds from the note would be used to make the General Fund whole, and pay off the cash advance. With the note issued, the process would begin anew, with the CCEIP drawing against the receivable from the General Fund to service another bundle of assessments. Upon reaching the target volume of \$3 – \$5 million, the CCEIP would issue another note to the Treasury Pool and the resulting proceeds would be used to replenish the General Fund.

This cycle would repeat several times, until a marketable level of aggregate contractual assessments is achieved. At that time, the CCEIP would seek to sell a land secured issuance. The proceeds from this issuance would be forwarded to the Treasury Pool and pay off the CCEIP notes. Any resulting spread would accrue to the CCEIP and would be used for program purposes. In total, long-term financing will be sought when interim financing from the Treasury Pool reaches \$25 million. CCEIP staff will diligently seek opportunities to access long-term financing.<sup>43</sup>

To ensure adequate diversity in the CCEIP contractual assessment pool, no less than 40 percent of the funds to be reserved for residential property owners and no more than 60 percent of the funds to be reserved for all other property owners. Residential contracts should have a minimum of \$2,500 and a maximum of \$75,000. Commercial contracts are recommended to have a minimum of \$2,500, but a maximum of \$250,000, given the scale required to undertake large commercial energy efficiency, water conservation or renewable energy improvements. Projects requesting more than \$250,000 would require approval by the Board of Supervisors. These limits will help to ensure the cost-effectiveness of CCEIP activities, and maximize countywide GHG emission reductions by ensuring funding is available for a

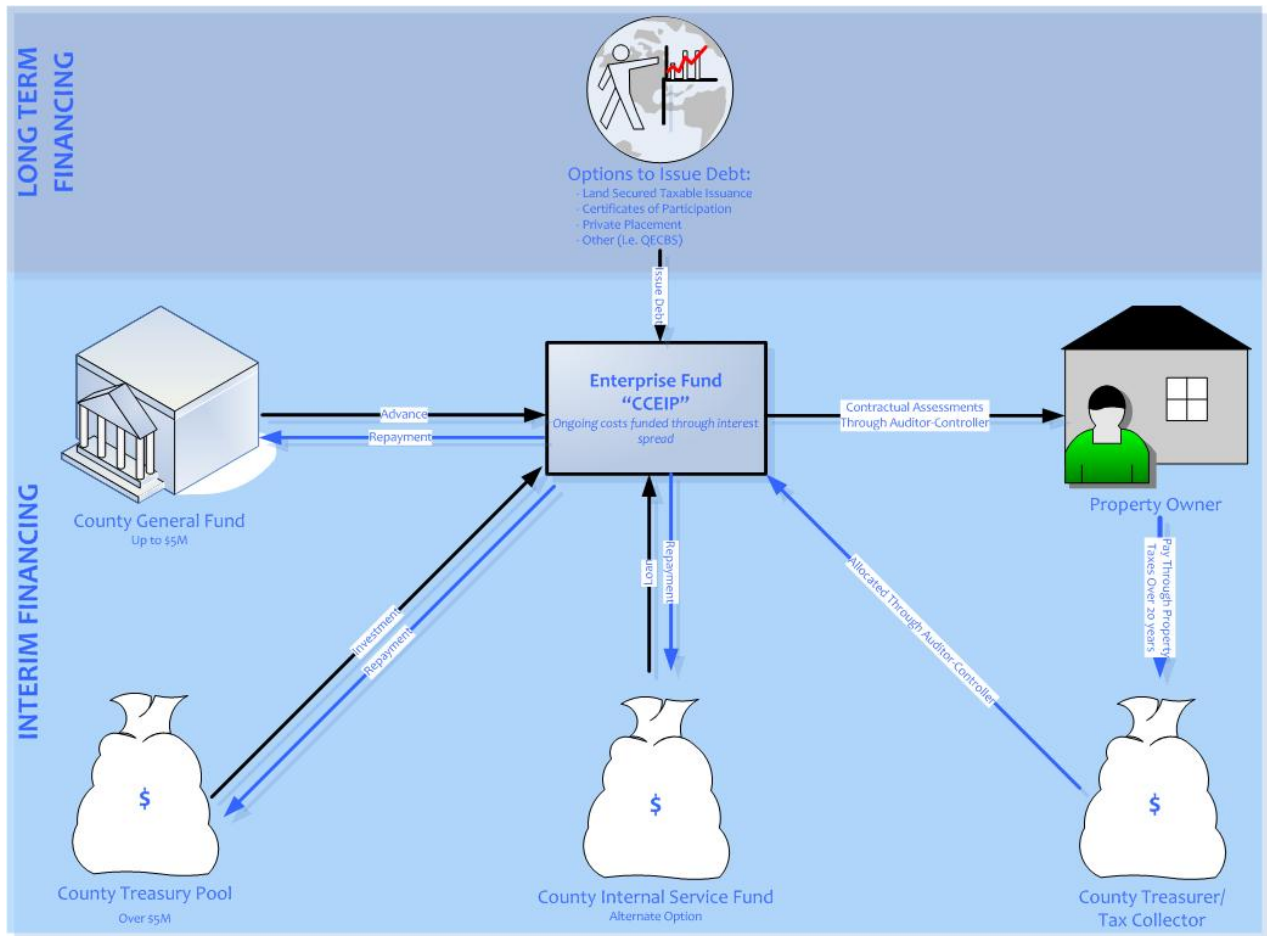
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<sup>43</sup> CCEIP staff will work with bond counsel to draft necessary financial instruments to ensure that transactions are appropriate and legal.

sufficient number of qualified participants. Moreover, given that marketable issuances are expected to be in the \$15 million to \$25 million range, it is important to ensure that single projects do not constitute a significant proportion of the issuance. This diversity in the pool of assessments will lower the interest rate potential investors would be willing to pay, thereby increasing the likelihood of a positive spread for the CCEIP.

In the event that long-term financing cannot be accessed after five years, the program would be shut down and contractual assessments will be held by the General Fund, since the Treasury Pool cannot hold notes longer than five years. Given the senior lien status of contractual assessments, the General Fund would bear very low risk in holding CCEIP contractual assessments. Contracts would pay approximately 7 percent over 20 years, serving as a revenue source for the General Fund. Alternatively, the County could seek private placements with banks, as discussed previously, or work with the CSCDA to merge the local program into the statewide model.

Figure 6. Recommended CCEIP Financing Flow Diagram



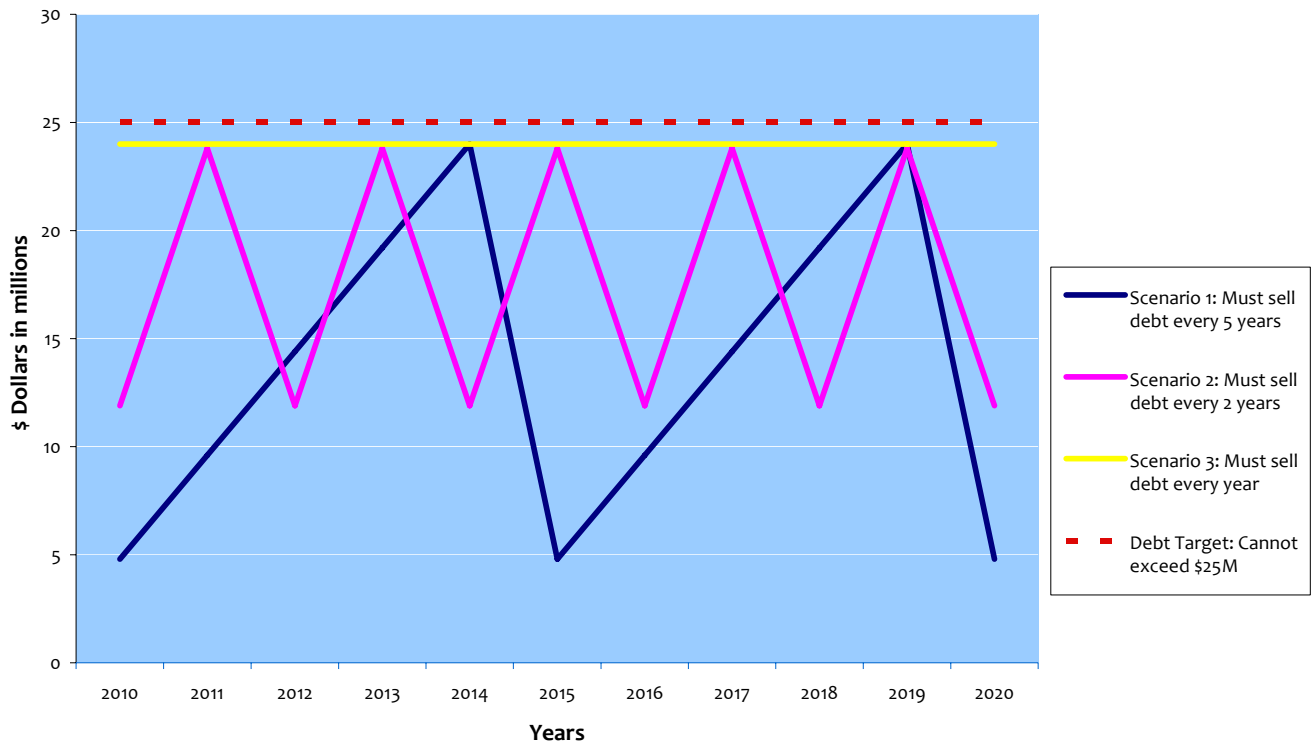
**Feasible Program size**

In each of the three analyzed program size scenarios, the CCEIP is expected to produce positive cash and assets (see Appendix B). These results are contingent upon assumptions regarding the cost of capital and the degree of program participation. Essentially, a 3-4 percent spread between the cost of capital and the contractual assessment rate is expected. Program budgets have been conservatively estimated,



beginning with approximately four FTE and increasing to seven FTE, depending on program size. The CCEIP would seek to sell land secured issuances between every one and three years, depending on program participation and the resulting volume of contractual assessments. For example, as illustrated in Figure 7, under Scenario 1, the CCEIP’s interim debt capacity target of \$25 million would be met every five years; whereas, this capacity would be met every year under Scenario 3. Therefore, the most feasible program size is Scenario 2, which translates to the ability to fund approximately 400 contractual assessments per year, while providing adequate time to coordinate funding commitments with the bond market.

Figure 7. Capacity to Hold Internal Debt Under Three Scenarios





## 6. Legal Considerations

### *Will the program overcome legal hurdles?*

Without a doubt, the financial feasibility of a local program is contingent upon the resolution of outstanding legal issues that have required additional due diligence. In fact, all jurisdictions that have implemented AB 811-type programs have used bond counsel to assist in program set-up and file a judicial validation action. Bond counsel expertise has proven critical in addressing the issues discussed below. County staff is in the process of selecting bond counsel to provide legal advice regarding financing options and the establishment of an energy efficiency financing district, to draft applicable documents, and to file a judicial validation action regarding the program. County staff plans to recommend that the Board of Supervisors approve a contract with the selected bond counsel on December 1, 2009.



### Senior Lien

AB 811 is implemented through an assessment lien on real property in the amount of the specified improvement. Program participants pay this lien off over a set number of years. Per AB 811, the assessment lien is senior to the first deed of trust on a property (mortgage); however, the “small print” in most mortgage agreements does not allow any voluntary senior lien. Therefore, jurisdictions that have implemented an AB 811-type program ask participants to agree that executing the assessment contract will not constitute a default under any other agreement or security instrument to which the property owner is a party. In practice, the two jurisdictions with active programs – Palm Desert and Sonoma County – report that this factor has not discouraged participation. In addition, other approaches to handling the senior lien issue identified by the project team include:

- Requiring program participants to submit forms signed by their lenders acknowledging/consenting to the assessment. This is likely to be the most protective approach for the County and program participants. Research has shown that one of the nine cities participating in the Sonoma County program uses this requirement for residential properties, whereas the others do not.
- Requiring program participants to send forms to their existing lenders informing them of the proposed assessment and stating that if lenders do not respond within a certain time period, the lender is thereby consenting to the assessment. This approach is less protective, because it is subject to challenge by the lenders.
- Asking a court to validate that contractual assessments under AB 811 take priority over existing mortgages through a court validation action. Sonoma County received a judgment in its validation action confirming that the contractual assessments levied under its program are superior liens pursuant to Government Code Section 53935.

In addition, an AB 811 assessment lien “runs with the property” and would typically be disclosed in title reports. Recently enacted, AB 474 requires additional specific disclosure for a transfer of real property subject to a contractual assessment. In the case of foreclosure, tax and assessment liens are paid off with the proceeds from a foreclosure.

## Proposition 218

Questions have been raised whether contractual assessments are “assessments” for purposes of Proposition 218 and whether they are covered by Articles XIIC and XIID of the California Constitution. AB 474, recently signed by the Governor, declared that voluntary contractual assessments are exempt from the provisions of Articles XIIC and XIID. Many bond counsels appear to be reaching the conclusion that contractual assessments are not “assessments” for purposes of Proposition 218; however, a successful judicial validation action may be required to obtain an unqualified bond counsel opinion on these issues. The County of Sonoma was successful in a judicial validation action on these issues.

## Recent and Pending Legislation

Legislation related to energy efficiency programs continues to move forward. Notable bills include:

- **SB 279**, discussed in previous DAC reports, was recently vetoed by the Governor. This legislation would have allowed cities and counties to create a special tax financing district based on the Mello Roos Community Facilities Act.
- **AB 474** was recently signed by the Governor, as discussed above. AB 474 amends AB 811 to include water conservation activities as allowable improvements, and addresses issues relating to Proposition 218 by specifying the “voluntary” nature of contractual assessments. Language is also added declaring that “voluntary” contractual assessments are exempt from the provisions of Articles XIIC and XIID of the California Constitution.
- **HR 3525 (Tax Exempt Private Activity Bond use for renewable energy generation and energy and water efficiency projects)** was introduced by Representative Thompson on July 31. If passed, it would likely result in a decrease interest rates charged to participants of AB 811 type programs, making programs more feasible.
- **HR 3836** was introduced by Representative Israel on October 19 to support and expand Property Assessed Clean Energy (PACE) Bond programs by authorizing the Secretary of Energy to provide credit support (i.e. loan guarantees) to enhance the availability of financing for clean energy technology deployment.
- **S.1733 (Clean Jobs and American Power Act)** was introduced Sept 30 by the Senate Environment & Public Works Committee. Among many features, the bill would make significant strides in incentivizing building energy efficiency/performance, including water efficiency. A key feature is the development of policies and standards to be known as Retrofit for Energy and Environmental Performance (REEP) to facilitate retrofits across the nation. The federal administrator of the REEP will provide consultation and assistance to State and local governments for “the establishment of revolving loan funds, loan guarantees or other forms of financial assistance”.<sup>44</sup> The bill also includes funding opportunities for residential and non-residential energy retrofit programs, such as:
  - Support for free or low cost detailed building energy audits
  - Up to \$3K for various levels of residential retrofits (i.e. savings of 20% or more), or up to \$2.50 per square foot for non residential retrofits (i.e. energy saving exceeding 50%), not to exceed 50% of retrofit costs

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44 The text of S.1733 can be found at <http://thomas.loc.gov/cgi-bin/query/z?c111:S.+1733:>

## 7. Additional Impacts

A fundamental principal behind the launch of a municipal energy financing district is to reduce energy usage in homes and commercial buildings. In doing so, the program achieves many other co-benefits, both to property owners and to the community-at-large. These co-benefits include monetary savings on energy and water bills, increased indoor comfort, home equity improvements, personal environmental responsibility, GHG emission reductions and job creation. While many of these impacts cannot be factored into the financial feasibility of the program, they are important and add significant merit to the existence of a program.

### Benefits to Property Owners

#### Energy Savings

Energy efficiency retrofits or the installation of renewable energy resources will reduce property owners' energy demand, thereby lowering utility bills. However, the extent to which monetary savings are achieved depends on several factors, including building size, current energy demand, and the types of improvements performed on a building. Nonetheless, a preliminary analysis of the projected savings for residential property owners throughout the County indicates that many property owners could reduce utility bills by \$10,000 over 20 years, given that financed improvements reduce energy demand by 40 percent.<sup>45</sup> Noting the relative age of the housing stock throughout the region, this estimate represents an achievable goal for many program participants.

As an additional resource, Renewable Funding's demand report supporting its proposed launch of a pilot statewide program illustrates the potential net financial costs or savings to participants under various project scenarios.<sup>46</sup> In this study, data from an average home with a \$150/month electric bill in Palmdale, CA (roughly 80 miles east of Santa Barbara) demonstrates how a package of improvements that is best suited for a specific climate can yield positive economic benefits. Assuming a kWh cost of \$0.18, and an interest rate of 7.5% on a 20 year contractual assessment, Table 5 shows that 1 of the 4 energy improvement scenarios listed provides a positive net present value. Clearly, the most cost-effective approach for the property owner in this example is to finance a combination of energy efficiency improvements first, followed by the installation of a smaller and appropriately sized solar unit. As a result, a \$12,000 investment leads to a net benefit of \$1,728 in 20 years. The study notes, logically, that participants with higher utility bills will experience greater savings from energy improvements.

Table 5. Example of Expected Energy Savings

Energy Improvements Made	Amount Assessed (Project cost and admin fees)	kWh Saved	Contractual Assessment Payment (Year 1-20)	Energy Cost Savings	Net Present Value (after tax deduction)
SCE - \$150 at 7.5%					
1.2kW Solar	\$ 8,790.60	2,014	\$ 71.86	\$ 41.58	\$ 1,511.06
2.4kW Solar	\$ 15,649.20	4,027	\$ 127.92	\$ 77.67	\$ 2,049.55
1.2kW Solar w/ Energy Efficiency	\$ 12,010.60	4,014	\$ 98.18	\$ 78.42	\$ 1,728.22
2.4kW Solar w/ Energy Efficiency	\$ 18,869.20	6,027	\$ 154.24	\$ 104.08	\$ 640.61

<sup>45</sup> Assumes an average home of approximately 2000 sq. ft, using 3.5 kWh per square foot per year, at \$0.18 per kWh. Based on data collected by the Community Environmental Council.

<sup>46</sup> Renewable Funding California Communities CaliforniaFIRST Program Data and Demand Analysis (September 16, 2009)

Given that the Board directs staff to proceed with program implementation, it is anticipated that ARRA resources will be leveraged to allow for additional studies, using industry best practices, to illustrate the most cost-effectiveness packages of energy improvements for property owners in the Santa Barbara County region. This information would help inform and guide program participants, while maximizing the ability to reduce communitywide energy use through a municipal energy financing program.

### **Water Savings**

According to the California Energy Commission<sup>47</sup>, 20% of all energy in California is used to transport, deliver, and treat water throughout the state. The demand for this water in urban areas is particularly high, given daily household needs and landscaping preferences. In fact, upwards of half the water required for a residential property can be attributable to landscaping alone. Accordingly, the ability to incentivize water conservation through a municipal energy finance program enables statewide energy savings and the preservation of a valuable resource. Moreover, simple measures, such as the installation of low flow-toilets, showerheads, and weather-sensing irrigation control devices can result in dramatic decreases in water use and increased cost savings for residential property owners in Santa Barbara County.

For commercial property owners, both manufacturers and agriculturalists have experienced an increase in technically advanced industrial processing and farming practices, but many traditional practices remain, as the costs of retrofitting, replacing or otherwise improving large-scale water delivery systems are high. Recognizing the tremendous value and cost of water across the County, the installation of cutting-edge water efficiency technologies would be eligible and promoted under the County's municipal energy finance program. The cost-savings associated with these improvements translates to a direct financial benefit to property owners.

### **Other Benefits**

As previously noted, demand reports detailed within this study have suggested that property owners interested in the program would be willing to participate, even if direct cost savings were not achieved. In fact, the social, environmental and personal benefits related to program involvement are enough to entice the participation of a defined segment of individuals. To these customers, some of the indirect benefits that serve to enrich quality of life and provide value to program participation include:

- Increased indoor comfort due to improved sealing, insulation and temperature control
- Improved indoor air quality and associated public health benefits
- Convenience of paying back the contractual assessment on property tax bills over a period as long as 20 years, which would not impact personal credit as the assessment runs with the property.
- While other options exist, a contractual assessment provides a complimentary financing option to enhance home equity and property values<sup>48</sup>
- The sense of personal environmental responsibility through reducing one's "carbon footprint" and addressing climate change

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<sup>47</sup> From CEC Clean Energy Summit Webcast Presentation (8/10/09)

<sup>48</sup> Input from staff in County Building and Safety suggest that property values could increase over 30% the cost of the improvements.

The decision to participate in a municipal energy finance program enables property owners to achieve economic, social, and environmental goals, whereby the associated costs and benefits may be passed from one property owner to the next. Accordingly, this makes participation in activities that benefit the regional quality of life a cost-effective endeavor for individuals.

## Communitywide Economic and Environmental Benefits

In addition to the incremental benefits brought to individual households and businesses, a regional municipal energy program would constitute a significant community development initiative, capable of growing the regional economy and adding jobs for the local workforce. Fundamentally, this program would create an alternative financing option for households and businesses to retrofit property. In doing so, investable capital that otherwise may leave the region would be directed towards local projects to yield local impacts. In fact, economic analysis has demonstrated that the three program scenarios discussed in this report would add hundreds of jobs to the regional economy and induce hundreds of millions of dollars in economic activity in the region.<sup>49</sup> Job impacts would be focused in the construction industry, which has been hit hard by the current economic recession. As previously noted in the workforce analysis section of this study, industry leaders revealed that, at present, up to 40 percent of construction trade workers are underemployed and several thousand jobs have been lost during the recession. As such, the ability of a municipal energy finance program to drive an upward trend in this employment sector should not be discounted. Notably, a conservative analysis of the smallest program scenario that generated just 160 annual contractual assessments provides opportunity to fully preserve existing jobs, as well as add 358 local jobs by 2020. This represents a four percent increase to the current baseline of 8,400 workers in the construction sector and is in addition to forecasted job growth rates for the sector. Related, it is estimated that nationally, 728 jobs would be added by the same small scale program. Given the ability to appropriately scale a program, regional job impacts would be much larger.

Specifically, the three program scenarios used throughout this report (160 annual contractual assessments, 400 annual contractual assessments, and 800 annual contractual assessments) are forecasted to produce the following economic impacts through 2020:

- **Scenario 1** would generate **\$52.7 million** in total private investment and related work. This would induce approximately **\$79.4 million** in economic output and create approximately **358 jobs** in Santa Barbara County. **\$138.2 million** in economic output and **728 jobs** would be induced nationwide.
- **Scenario 2** would generate **\$131.9 million** in total private investment in related work. This would induce **\$198.7 million** in economic output and create approximately **897 jobs** in Santa Barbara County. **\$345.9 million** in economic output and **1,821 jobs** would be induced nationwide.
- **Scenario 3** would generate **\$264.2 million** in total private investment and related work. This would generate approximately **\$398.0 million** in economic output and create approximately **1,796 jobs** in Santa Barbara County. **\$692.9 million** in economic output and **3,648 jobs** would be induced nationwide.

These summary results indicate that a municipal energy financing program would assist in repairing the regional economy, and would deliver measureable results as part of a broader national recovery. Through these job impacts and income multipliers flowing among economies, individuals and businesses in the construction trades will benefit, as will others, through the increase in spending associated with new

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<sup>49</sup> Economic impact analysis has been conducted using IMPLAN, the leading economic forecasting software package.



employment and work. Healthy economies correlate with increasing public revenues; therefore, a municipal energy financing program would also help local agencies fund and deliver services and infrastructure to meet communitywide needs.

### ***GHG emissions***

These economic results directly align with the goals of the County’s Climate Change Guiding Principles and the Climate Action Strategy, which recognize the need to provide incentives for businesses and households to reduce communitywide GHG emissions. To appropriately calculate the likely GHG emission resulting from a municipal energy financing program, it is anticipated that ARRA resources will be available to carry out additional studies as a component of the Board’s directed program implementation plan. An accurate and scientific inventory of the GHG emission reductions associated with this program will position the County to address a significant portion of the State’s target, established through AB 32. Moreover, the County will diligently participate in the forthcoming AB 32 rulemaking process to ensure that any emission reduction credits resulting from the program are appropriately awarded to the region.

## 8. Conclusions

The results of this analysis demonstrate that implementation of a County-managed municipal energy financing program is feasible. If directed by the Board to move forward with implementation, the County would emerge as a national leader, being one of the first jurisdictions in the country to adopt a program, and the very first to implement a coastal program. Implementation will align regional climate action and economic recovery, helping the region move towards a more resource-efficient economy, better equipped to participate in an emerging carbon market.

In summary, this report has demonstrated that feasible options exist in each of the following four areas studied:

- 1) **Market Feasibility:** Given the program scale, can local demand and available workforce support the necessary volume of contractual assessments?

Conclusion: Yes, many indicators show that *demand will be high and the workforce will be prepared*. Santa Barbara County has adequate demand to sustain an ongoing municipal energy finance program. Concurrently, skilled workers are already in place to support program implementation, and a coordinated workforce development effort will help with any necessary retraining or skill building. Despite its mild climate, a sizable number of single family homeowners and business owners are expected to be interested reaping the benefit of lower energy and water costs, while achieving improved indoor comfort and higher home equity, particularly in older buildings. Strong program interest is critical, considering that adequate participation is one of the most important factors in determining ongoing programmatic and financial sustainability.

- 2) **Program Feasibility:** Can the County design and administer an effective program?

Conclusion: Yes, *a program would be sustainable, even if just 3 percent of all owner-occupied single family homes were retrofitted by 2020*, granted that the program is reasonably convenient and offers competitive rates. Based on current market dynamics, contract volume estimates, and projected administrative costs, program revenue is expected to cover all administrative costs if start up funding is obtained to cover initial program administration needs. When compared to other organizational options, a County managed program will yield the highest ability to meet the unique needs of communities in the region, deliver high levels of customer service, and maximize the economic multipliers flowing to the region.

- 3) **Financial Feasibility:** Can the program become self sustaining without creating a significant risk to the County?

Conclusion: Yes, there are several means of supporting the initial contractual assessments made to residential and commercial customers through the CCEIP. Of these available options, *the sale of a market-rate assessment district bond or note to the Santa Barbara County Treasurer's Investment Pool is recommended as the most viable source of interim capital*. Given interim finance constraints, the program should be expected to initially support approximately 400 contractual assessments annually. The municipal energy finance program would pay off the note by accessing long-term financing and the debt market after two to three years.

4) **Legal Feasibility:** Will the program overcome legal hurdles?

Conclusion: Yes, noting Sonoma County’s validation action approval in September, *the County expects to be successful in receiving judicial validation.* All jurisdictions that have implemented AB 811-type programs have used bond counsel to assist in program set-up, develop proper financial instruments, and file a judicial validation action to address known legal issues.

Notably, the economic benefits associated with program implementation are significant. As illustrated in Table 6, each of the three program scenarios produce substantial impacts related to jobs and regional economic output. That being said, a diligent effort to manage funding obligations is required to preserve the ability to access long-term financing at the appropriate time. In short, while demand for the program may be strong, the County must coordinate its funding commitments with the bond market. Accordingly, the goal is to seek long-term financing when total funding commitments equal approximately \$25 million. This translates into the ability to fund approximately 400 contractual assessments per year, as shown in Scenario 2. While all three scenarios in this report meet the definition of feasibility, it is reasonable to expect that a program capable of making 400 annual contractual assessments most accurately represents the outcome associated with launching a regional program.

Table 6. Three Scenarios: Analysis and Results

Scenarios	Contractual assessments/Year	% of all "interested" property owners	% of all County homes retrofitted by 2020	Associated Annual Contractual Assessment Volume (millions)	Start-Up Costs	Ongoing Admin Costs (in 2012)	Years before reaching debt limit	Economic Output Nationwide by 2020 (millions)	Job Creation Nationwide by 2020
Scenario 1	160	10%	1%	\$4.80	\$170,000	\$951,554	5	\$138.2	728
Scenario 2	400	25%	3%	\$11.90	\$170,000	\$1,011,886	2	\$345.9	1,821
Scenario 3	800	50%	6%	\$24.00	\$170,000	\$1,204,016	1	\$692.9	3,648

## Recommendations

The project team recommends that the County Board of Supervisors direct staff to implement a regional program, called the Central Coast Energy Independence Program, to be organized in the County Housing and Community Development Department and include all interested incorporated cities. In order to ensure success, the project team recommends the following risk mitigation provisions:

- The Board provides a \$1 million advance receivable from General Fund for start-up programmatic resources necessary to establish storefronts, hire appropriate staff, and carry out other administrative duties discussed in this report.
- Interim financing for contractual assessments to property owners is funded through Internal Service Funds (ISF), with a goal of providing contractual assessments similar to those provided by Sonoma County, where the interest rate to customers is approximately 7 percent. The ISF will likely be repaid every eighteen to twenty-four months, when these contractual assessments are sold on the market in tranches of \$10 million to \$15 million. At the end of a two to three year

period, if the contracts are not purchased by outside parties, they would be sold to the Treasury Pool as a note, with a term of up to five years. This will provide additional time necessary to educate the market.

- If the private sector transitions to occupy a significant segment of the energy efficiency and solar financing market, the County’s program should be scaled back. With demonstrated private investment and competition, the need for a County-sponsored program will be minimized.
- In the scenario that the County is unable to sell bonds in a timely manner, several strategies will be implemented to preserve assets, minimize the risk to the General Fund, and ensure smooth programmatic closure if warranted. This includes seeking private placements with banks.

## Next Steps

Should the Board provide direction to initiate program implementation on December 1, 2009, a required legal process must be followed, consistent with the provisions of AB 811, to establish the County’s municipal energy finance program. This includes working with bond counsel to develop final program documents and a draft “resolution of intention” that each participating city Council must approve, prior to the Board’s ultimate adoption of a program. As illustrated in Figure 8, work to address these requirements will continue through the December timeframe, along with efforts to apply for ARRA grants (EECBG and SEP), identify storefronts, establish a web presence, and define staff qualifications. Accordingly, program implementation will proceed in a two-phase process, and two subsequent Board hearings will be necessary to adopt appropriate documents and create the municipal energy financing program. Phase 1 will include tasks leading up to the projected January 12, 2010 Board adoption of a “resolution of intention” to establish a program, and Phase 2 will include the tasks between mid January and April 2010, when a program is forecasted to be open for business. These tasks and associated costs are summarized below:

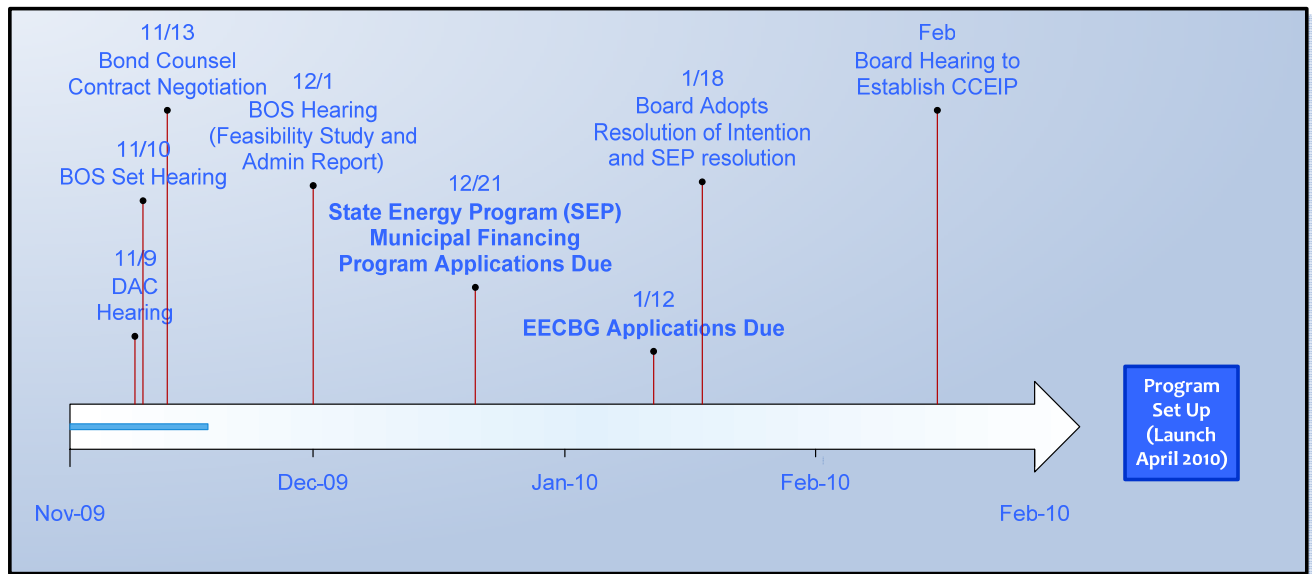
### Phase 1: Tasks accomplished prior to January 12, 2010.

- Work with Bond Counsel to establish formal program documentation, contracts, financial instruments, and judicial validation documents.
- Seek resolutions of support and participation from the other jurisdictions, including the eight incorporated cities within Santa Barbara County, needed for ARRA grant applications.
- Develop job descriptions and salary ranges for CCEIP personnel.
- Initiate statutory program adoption proceedings, which include:
  - Developing the “resolution of intention” and associated program reports.
  - Working with cities to adopt resolutions of intention, consenting to the inclusion of incorporated territory in the program.
- Establish a web presence.
- Establish program business procedures, process controls, and quality assurance.
- Return to the Board for adoption of the “resolution of intention” on January 12, 2010.

### Phase 2: Tasks accomplished between January 2010 and April 2010.

- Return the Board in February 2010, pursuant to State law, to adopt the formal program and assessment district.
- Establish accounting structure and reserve fund to address cash flow needs.
- Entering into formal program agreements with incorporated cities.
- Initiating judicial validation proceedings for the program, if uncontested.
- Recruit and hire staff.
- Establish storefronts, procure software, update website.
- Develop media to outreach materials launch program.

Figure 8. CCEIP Implementation Timeline



# Appendices

## Appendix A

### *Estimated Participation and Program Size Scenarios*

Based on the analysis in the market research section, the number of expected participants is estimated using the following assumptions:

- 1) The owner-occupied housing stock in Santa Barbara County (incorporated and unincorporated) is 76,400;
- 2) Findings from both Sonoma County and Renewable Funding, LLC, show that the expected rate of interest in the program is likely around 23 percent of all property owners.
- 3) The benchmark year used is 2020, to reflect the State's AB 32 GHG goals.
- 4) Because it is unlikely that the County will be able to leverage enough financing for every interested resident, the following three proportions are used: 10 percent of all interested property owners by 2020, 25 percent of all interested property owners by 2020, or 50 percent of all interested property owners by 2020;
- 5) The rate at which the program is expected to grow could follow various patterns. Though unlikely, this analysis assumes a simple constant number of participants each year.

Using these assumptions, the volume of annual contractual assessments was projected based on the estimated number of participants expected in each year. Assuming the average contractual assessment size is expected to be \$30,000, three scenarios of various program sizes were created for analysis.

#### **Scenario 1** (small): 160 contractual assessments/year

Contractual assessments provided to roughly 10 percent of all “interested” property owners of owner occupied homes by 2020 (1,757 contractual assessments). As a result, roughly 1 percent of all homes in the County would be retrofitted and/or receive solar installations by 2020. The contractual assessment volume needed to support this level of participation is \$4.8 million/year.

#### **Scenario 2** (medium): 400 contractual assessments/year

Contractual assessments provided to roughly 25 percent of all “interested” property owners of owner occupied homes by 2020 (4,393 contractual assessments). As a result, roughly 3 percent of all homes in the County would be retrofitted and/or receive solar installations by 2020. The contractual assessment volume needed to support this level of participation is \$11.9 million/year.

#### **Scenario 3** (large): 800 contractual assessments/year

Contractual assessments provided to roughly 50 percent of all “interested” property owners of owner occupied homes by 2020 (8,786 contractual assessments). As a result, roughly 6 percent of all homes in the County would be retrofitted and/or receive solar installations by 2020. The contractual assessment volume needed to support this level of participation is \$24.0 million/year.



## Appendix B

### *Program Pro Formas*

Pro formas have been developed for three scenarios to provide a realistic, yet conservative, analysis of the true costs and income forecasted for a municipal energy financing program. The analysis of these scenarios assists in understanding the sensitivity of program performance in relation to the demand for contractual assessments. In summary, each of the analyzed scenarios demonstrates that a municipal clean energy finance program would be cash positive, protecting other County resources. Descriptions of each line item in the pro forma and associated assumptions are explained in detail below.

### **ORDINARY INCOME/EXPENSES**

**Income:** This includes grant funds provided through ARRA and other sources, as well as a 1 percent fee charged to all funded contractual assessments.

**Salaries:** Job types include a Program Manager (\$103,000 loaded salary), Energy Specialist (\$85,000 loaded salary), and Program Assistant (\$57,000 loaded salary). The Program Manager is responsible for overseeing operations, personnel and hiring matters, ongoing office management, training, marketing/outreach, and data tracking. The Energy Specialist is a staff-level position, with responsibilities for providing advice and assistance to interested participants and administering title check, application review, contract processing, and disbursement, as well as performing accounting duties and providing feedback on best-practices and emerging energy technologies. The Program Assistant Program Assistant's responsibilities would include providing customer services, maintaining files, scheduling appointments, purchasing, assisting with application processing, updating the website, and office management duties. For scenario 1, program start-up requires 4 full time equivalents (FTE) and increases to 6 FTE by 2012, as the volume of contractual assessments escalates. For scenarios 2 and 3, program start-up requires 4 FTE and increases to 7 FTE by 2012, as the volume of contractual assessments escalates. The increased staffing is required to process new contractual assessments, and provided adequate ongoing levels of customer service to customers with existing contractual assessments.

**Contractual Services:** ongoing (i.e., non start-up) consulting assistance regarding program design, financing, or legal elements of an effective program.

**Start-up Costs:** Includes costs for bond counsel, website development, and program design assistance.

**Communications:** Includes costs for phones, phones service, and internet service.

**Rents/Leases:** Includes annual rent for storefronts in the northern and southern portion of Santa Barbara County, assuming the use of existing space in County buildings.

**Supplies & Reprographics:** Standard office supplies including ink, printers, and general reproductions costs.

**County Provided Support:** Includes the allocated costs from other County departments associated with managing program financial resources and the assessment district.

**Advertising:** Addresses content development and outreach through a variety of media outlets including print, radio and government television.

**Materials Development:** Includes specific collateral material to advertise the program such as fliers, postcards, and posters.

**Miscellaneous Expenses:** Contingency for unanticipated operational expenses.

**Training:** Ongoing staff training and skill development to deliver a high degree of customer service and remain knowledgeable of best practices in the municipal energy finance industry.

**Interest Expense:** Includes the cost of providing an advance receivable to the program from the General Fund. The program is charged the Treasury pool rate of 2 percent on a \$1 million advance.

**Total Operating Expenses:** All expenses, not including salaries.

**Total Expenses:** All expenses, including salaries.

**Net Ordinary Income:** Ordinary income provided through grants and fees minus total expenses.

#### **OTHER INCOME/EXPENSES**

**Interest Income:** Includes the total annual income generated by contractual assessments, calculated monthly, assuming a 7 percent interest rate per assessment.

**Reserve Fund:** 5 percent of annual program revenue is placed into a loss reserve fund to protect against defaults, enhance customer's ability to prepay contractual assessments, and provide the collateral required for permanent financing.

**Interest Expense:** This demonstrates the cost of interim financing, given the outstanding volume of contractual assessments. Reflecting the current and forecasted rate environment, the cost of interim funds is set at 1.75 percent in 2010 and escalates to 3 percent by 2012.

**Total Other Income:** Interest income minus the funds placed into the loss reserve fund and Interest Expenses.

**Net Income (Loss):** This illustrates the Net Ordinary Income plus the Total Other Income, indicating the net loss or gain in a given year. Notably, a negative number in a given year is not necessarily bad, so long as the loss reserve is appropriately funded and interest income is available. For example, as illustrated in Scenario 1, below, in the worst case scenario of program closure in 2013, \$720,000 remains in the loss reserve fund, compared to \$585,000 in losses. This represents positive cash which, when coupled with the revenue from interest income over the term of the assessments, ensures adequate ongoing protection of County resources. In both Scenario 2 and Scenario 3, the program would be positive regarding net income, in the case of program closure.

**Contractual Assessments Made:** Represents the dollar volume of contractual assessments, given an average contractual assessment size of approximately \$30,000 and three analyzed demand scenarios of 160, 400, and 800 contractual assessments funded annually.

**Scenario 1: Pro forma for Annual Contractual Assessment Volume of \$4.8 million**

	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>TOTAL</b>	<b>2013</b>
<b>Ordinary Income/Expense</b>					
<b>Income</b>					
<b>Operations</b>					
ARRA (SEP)	-	-	-	-	-
ARRA (EECBG)	772,000	-	-	772,000	-
Fees	48,000	48,000	48,000	144,000	-
<b>Total Income</b>	<b>820,000</b>	<b>48,000</b>	<b>48,000</b>	<b>916,000</b>	<b>-</b>
<b>Expense</b>					
Total Salary Expenses	353,634	399,625	458,294	1,211,553	-
Contractual Services	-	-	-	-	-
Start-Up Costs	170,000	-	-	170,000	-
Communications	9,996	11,400	14,400	35,796	-
Rents/Leases-Structure	17,160	17,160	17,160	51,480	-
Supplies & Reprographics	16,000	27,000	48,300	91,300	-
County Provided Support	84,000	147,000	258,000	489,000	25,000
Advertising	100,000	100,000	100,000	300,000	-
Materials development	15,000	15,000	15,000	45,000	-
Website	5,100	5,100	5,100	15,300	-
Misc. expenses	10,200	10,200	10,200	30,600	-
Training	19,800	9,900	5,100	34,800	-
7830 – Interest Expense	20,000	20,000	20,000	60,000	-
<b>Total Operating Expenses</b>	<b>467,256</b>	<b>362,760</b>	<b>493,260</b>	<b>1,323,276</b>	<b>25,000</b>
<b>Total Expense</b>	<b>820,890</b>	<b>762,385</b>	<b>951,554</b>	<b>2,534,829</b>	<b>25,000</b>
<b>Net Ordinary Income</b>	<b>(890)</b>	<b>(714,385)</b>	<b>(903,554)</b>	<b>(1,618,829)</b>	<b>(25,000)</b>
<b>Other Income/Expense</b>					
Interest Income	140,000	518,000	795,667	1,453,667	1,232,000
Reserve Fund	(240,000)	(240,000)	(240,000)	(720,000)	-
Interest Expense	(35,000)	(148,000)	(284,167)	(467,167)	(440,000)
<b>Total Other Income</b>	<b>(135,000)</b>	<b>130,000</b>	<b>271,500</b>	<b>266,500</b>	<b>792,000</b>
<b>Net Income (Loss)</b>	<b>(135,890)</b>	<b>(584,385)</b>	<b>(632,054)</b>	<b>(1,352,329)</b>	<b>(585,329)</b>
<b>Contractual Assessments Made</b>	<b>4,800,000</b>	<b>4,800,000</b>	<b>4,800,000</b>	<b>14,400,000</b>	<b>-</b>

Scenario 2: Pro forma for Annual Contractual Assessment Volume of \$11.9 million

	2010	2011	2012	TOTAL	2013
<b>Ordinary Income/Expense</b>					
<b>Income</b>					
<b>Operations</b>					
ARRA (SEP)	-	-	-	-	-
ARRA (EECBG)	772,000	-	-	772,000	-
Fees	119,000	119,000	119,000	357,000	-
<b>Total Income</b>	<b>891,000</b>	<b>119,000</b>	<b>119,000</b>	<b>1,129,000</b>	<b>-</b>
<b>Expense</b>					
Total Salary Expenses	353,634	457,498	516,166	1,327,299	-
Contractual Services	-	-	-	-	-
Start-Up Costs	170,000	-	-	170,000	-
Communications	9,996	11,400	13,800	35,196	-
Rents/Leases-Structure	17,160	17,160	17,160	51,480	-
Supplies & Reprographics	16,000	19,020	21,360	56,380	-
County Provided Support	204,000	252,000	288,000	744,000	25,000
Advertising	100,000	100,000	100,000	300,000	-
Materials development	15,000	15,000	15,000	45,000	-
Website	5,100	5,100	5,100	15,300	-
Misc. expenses	10,200	10,200	10,200	30,600	-
Training	19,800	9,900	5,100	34,800	-
7830 -- Interest Expense	20,000	20,000	20,000	60,000	-
<b>Total Operating Expenses</b>	<b>587,256</b>	<b>459,780</b>	<b>495,720</b>	<b>1,542,756</b>	<b>25,000</b>
<b>Total Expense</b>	<b>940,890</b>	<b>917,278</b>	<b>1,011,886</b>	<b>2,870,055</b>	<b>25,000</b>
<b>Net Ordinary Income</b>	<b>(49,890)</b>	<b>(798,278)</b>	<b>(892,886)</b>	<b>(1,741,055)</b>	<b>(25,000)</b>
<b>Other Income/Expense</b>					
Interest Income	347,083	1,284,208	1,972,590	3,603,882	3,054,333
Reserve Fund	(595,000)	(595,000)	(595,000)	(1,785,000)	-
Interest Expense	(86,771)	(366,917)	(704,497)	(1,158,184)	(1,090,833)
<b>Total Other Income</b>	<b>(334,688)</b>	<b>322,292</b>	<b>673,094</b>	<b>660,698</b>	<b>1,963,500</b>
<b>Net Income (Loss)</b>	<b>(384,578)</b>	<b>(475,986)</b>	<b>(219,793)</b>	<b>(1,080,357)</b>	<b>858,143</b>
<b>Contractual Assessments Made</b>	<b>11,900,000</b>	<b>11,900,000</b>	<b>11,900,000</b>	<b>35,700,000</b>	<b>-</b>

Scenario 3: Pro forma for Annual Contractual Assessment Volume of \$24 million

	2010	2011	2012	TOTAL	2013
<b>Ordinary Income/Expense</b>					
Income					
Operations					
ARRA (SEP)	-	-	-	-	-
ARRA (EECBG)	772,000	-	-	772,000	-
Fees	240,000	240,000	240,000	720,000	-
<b>Total Income</b>	<b>1,012,000</b>	<b>240,000</b>	<b>240,000</b>	<b>1,492,000</b>	<b>-</b>
Expense					
Total Salary Expenses	489,201	546,296	546,296	1,581,794	-
Contractual Services	-	-	-	-	-
Start-Up Costs	170,000	-	-	170,000	-
Communications	9,996	11,400	13,800	35,196	-
Rents/Leases-Structure	17,160	17,160	17,160	51,480	-
Supplies & Reprographics	16,000	19,020	21,360	56,380	-
County Provided Support	318,000	378,000	450,000	1,146,000	25,000
Advertising	100,000	100,000	100,000	300,000	-
Materials development	15,000	15,000	15,000	45,000	-
Website	5,100	5,100	5,100	15,300	-
Misc. expenses	10,200	10,200	10,200	30,600	-
Training	19,800	9,900	5,100	34,800	-
7830 -- Interest Expense	20,000	20,000	20,000	60,000	-
<b>Total Operating Expenses</b>	<b>701,256</b>	<b>585,780</b>	<b>657,720</b>	<b>1,944,756</b>	<b>25,000</b>
<b>Total Expense</b>	<b>1,190,457</b>	<b>1,132,076</b>	<b>1,204,016</b>	<b>3,526,550</b>	<b>25,000</b>
<b>Net Ordinary Income</b>	<b>(178,457)</b>	<b>(892,076)</b>	<b>(964,016)</b>	<b>(2,034,550)</b>	<b>(25,000)</b>
Other Income/Expense					
Interest Income	700,000	2,590,000	3,978,333	7,268,333	6,160,000
Reserve Fund	(1,200,000)	(1,200,000)	(1,200,000)	(3,600,000)	-
Interest Expense	(175,000)	(740,000)	(1,420,833)	(2,335,833)	(2,200,000)
<b>Total Other Income</b>	<b>(675,000)</b>	<b>650,000</b>	<b>1,357,500</b>	<b>1,332,500</b>	<b>3,960,000</b>
<b>Net Income (Loss)</b>	<b>(853,457)</b>	<b>(242,076)</b>	<b>393,484</b>	<b>(702,050)</b>	<b>3,232,950</b>
<b>Contractual Assessments Made</b>	<b>24,000,000</b>	<b>24,000,000</b>	<b>24,000,000</b>	<b>72,000,000</b>	<b>-</b>