



The County of San Diego

Planning Commission Hearing Report

Date:	October 14, 2016	Case/File No.:	N/A
Place:	County Operations Center 5520 Overland Avenue San Diego, CA 92123	Project:	Comprehensive Renewable Energy Plan Phase I Report
Time:	9:00 a.m.	Location:	San Diego County
Agenda Item:	#1	General Plan:	N/A
Appeal Status:	N/A	Zoning:	N/A
Applicant:	N/A	Community:	ALL
Environmental:	CEQA Exemption § 15262 Feasibility and Planning Studies	APN:	N/A

A. EXECUTIVE SUMMARY

1. Report Purpose

As directed by the Board of Supervisors, this staff report presents findings of the Comprehensive Renewable Energy Plan (CREP) Phase I work plan and proposes recommendations for Phase II. The findings include results of economic, feasibility and best management practices research and analysis. The staff report highlights the economic analysis findings that demonstrate increases in renewable energy investment are directly proportional to job creation and consumer savings.

The staff report also summarizes 17 best management practices that were developed with input from consultants, internal and external stakeholders, and the Technical Advisory Committee ("Committee"). Based on information from the technical reports and stakeholder engagement, County staff is recommending 11 best management practices for further consideration.

2. Requested Actions

The Planning Commission is requested to:

1. Review the CREP Draft Phase I Report (EMpower 2015) and Executive Summary Report (Ascent 2016);
2. Consider input from the Committee and the public on recommendations for Phase II;
3. Consider staff findings and recommendations for Phase II;
4. Recommend actions by priority for the Board of Supervisors to provide staff direction for Phase II.

B. BACKGROUND

This staff report presents the results of the Comprehensive Renewable Energy Plan (CREP) Phase I work plan and proposes recommendations for Phase II. This staff report summarizes economic, feasibility and best management practices research conducted with the assistance of outside consultants, and findings and recommendations developed through internal and external stakeholder participation. The findings include an overview of existing renewable energy conditions in San Diego County, opportunities for greater efficiencies, and a list of 17 best management practices.

The following sections outline the direction from the Board, and steps taken to identify the findings and recommendations for the Board's consideration for Phase II.

1. Board Direction

On April 10, 2013 (3), the Board of Supervisors (Board) directed the Chief Administrative Officer to research and develop options for a comprehensive renewable energy plan, and to prepare a work plan including time and cost estimates.

On September 25, 2013 (1), County staff provided the CREP Phase I work plan for consideration by the Board (Attachment A). In summary, the work plan included the following five components:

- 1) Coordinate with the County's Energy and Sustainability Team to analyze the County's existing renewable energy programs and efforts, finding opportunities for efficiencies and bringing resources and knowledge together into a more focused program.
- 2) Work with private sectors stakeholders to understand the trends, issues and challenges facing renewable energy development in our region.
- 3) Conduct economic, feasibility and best management practices research with the assistance of outside consultants to address the report topic areas noted below.
 - a. Overview of existing renewable energy resources available within the unincorporated county
 - b. Cost analysis of different types of renewable energy
 - c. Cost analysis of energy delivery models
 - d. Consumer choice alternatives
 - e. Discussion of incentives, policies and best management practices in other jurisdictions that promote sustainable renewable energy development
 - f. Overview of the renewable energy industry in San Diego County and its potential for growth
- 4) Develop findings and recommendations for the Board's consideration through internal and external stakeholder participation.
- 5) Form a Renewable Energy Advisory Committee comprised of stakeholders interested and/or involved in the promotion of renewable energy.

The County provided a presentation on the work plan, and the Board directed staff to initiate Phase I excluding 3b and 3c (Attachment B).

The Board established appropriations of \$300,000 in County Planning & Development Services to fund Phase I, and directed the Director to form a Renewable Energy Technical Advisory Committee. The Board also directed staff to prepare a “pipelining” provision for existing applications for discretionary renewable energy projects.

The purpose of the “pipelining” provision is to ensure new rules or policies do not retroactively apply to or delay renewable energy projects with completed discretionary applications. Implementation of the Phase I work plan-- including consultant contracting and reporting-- does not constitute Board approval of new rules or policies that would necessitate a “pipelining” provision. No discretionary projects were delayed due to preparation of Phase I findings and recommendations. The provision will apply to new rules or policies the Board directs staff to prepare in Phase II that require a scope, schedule and appropriation of funds. As applicable, Phase II work plans will include the provision as follows: “any discretionary renewable energy project applications deemed complete prior to new rules taking effect shall be governed by existing rules and the new rules shall not be retroactively applied to such projects.”

Finally, the Board directed staff to return within 14 months of executing all required consultant service contracts.

2. Consultant Service Contracts

The County prepared a consultant scope of work based on the Board’s direction from September 2013. From December 2013 through January 2014, County Planning & Development Services solicited proposals for consulting services to assist with implementation of the Phase I work plan (County Request for Proposals 6312). Through a competitive bid process, staff selected EMpower Devices and Associates (EMpower) to prepare a comprehensive report to serve as a foundational resource for developing findings and recommendations concerning the County’s renewable energy-related plans, programs and policies.

On June 9, 2014, the County and EMpower entered into a contract to initiate the statement of work, including the following summary of tasks:

- identify and quantify the renewable energy resources available in San Diego County based on currently available models and data to show the relative resource potential throughout the County;
- provide an overview of alternative energy models, such as Community Choice Aggregation and "Direct Access" purchasing, that provides consumers with options beyond the traditional investor owned utility model;
- identify the incentives, policies and best management practices utilized in other jurisdictions and examine whether they produce desired effects; and
- conduct an economic analysis to identify the current and potential renewable energy industry jobs and investment within the region.

In 2014, the contract was amended to include stakeholder outreach of up to six meetings throughout the County with the goal of obtaining diverse feedback and input from the public on consultant findings and recommendations.

Throughout 2014 and 2015, EMpower and the County made significant progress on the project, including coordinating two Committee meetings to discuss the research approach, economic analysis methodology, and opportunities to increase renewable energy in San Diego County. In July 2015, EMpower published the Draft Phase I Report (Attachment C). However, due to schedule delays, the contract term expired before the draft document could be finalized.

In April 2016, the County distributed the Draft Phase I Report for public review. In order to complete implementation of the Phase I work plan, the County contracted with Ascent Environmental (Ascent) to provide support. In August 2016, Ascent was contracted to assist with additional Committee meetings, meetings with the Community Planning/Sponsor Group Chairs, and public workshops to solicit input on the best management practices described in the Draft Phase I Report.

Ascent is also the prime consultant responsible for preparing the County's Climate Action Plan (CAP) and associated Environmental Impact Report. Renewable energy information gathered during implementation of the CAP public outreach and engagement process was synthesized by the County and Ascent. To date, public input on renewable energy measures was solicited during approximately 20 CAP stakeholder meetings, four CAP visioning sessions, and two CAP public workshops.

Using the remaining funds appropriated, Ascent prepared an Executive Summary Report that refines and builds upon information provided in the Draft Phase I Report, including an assessment of the anticipated return on investment and prioritization of the best management practices. Ascent published the Executive Summary Report in September 2016, and the County distributed it for public review (Attachment D).

3. Technical Advisory Committee

An Ad Hoc Technical Advisory Committee ("Committee") for the CREP was appointed by the Director of County Planning & Development Services in July 2014. The Committee was formed to provide a breadth of knowledge related to renewable energy, and contribute technical insight through a series of meetings. The Committee appointed a Chair and Vice Chair, and agreed to be governed by By-laws and Rosenberg's Rules of Order. The Committee is comprised of the following members:

1. Peder Norby, Committee Chair, County Planning Commissioner
2. Craig Benedetto, Committee Vice Chair, San Diego Regional Chamber of Commerce
3. Corinne Lytle Bonine, Chambers Group (formerly with URS Corporation)
4. Douglas Kot, American Institute of Architects, Leadership in Energy and Environmental Design, DNV GL
5. John Reaves, Attorney and Credentialed Mediator
6. Jason Anderson, Cleantech San Diego
7. Ken Parks, San Diego Gas & Electric
8. Richard Caputo, San Diego State University

Since October 2014, the County and consultants met with the Committee four times to collaborate at key milestones during implementation of the Phase I work plan.

For the Committee meetings, County staff produced agendas, presentations, and other materials to guide the discussions. Topics discussed at each meeting include:

1. introductions and research approach;
2. economic analysis methodology and opportunities to increase renewable energy in San Diego County;
3. Draft Phase I Report best management practices; and
4. staff recommendations for Board consideration.

In advance of the third meeting, County staff published a “workbook” for Committee members and public attendees to brainstorm on the advantages and disadvantages of several best management practices, and to provide input during the meeting. Although the Committee did not vote or provide consensus on findings and recommendations, they offered extensive feedback for the County to consider during each phase of the process.

The meetings were properly noticed and open to the public in accordance with Brown Act requirements. Public comments were accommodated at each meeting, and minutes and other materials were posted on the project website for public review. Technical Advisory Committee meeting minutes are included in Attachment E.

C. ANALYSIS AND DISCUSSION

Staff provided the most current information on the project website as it progressed through the planning phases. The Board letter and minute order, Draft Phase I Report, Executive Summary Report, Technical Advisory Committee meeting materials, public workshop materials and background information are provided on the project website:

<http://www.sandiegocounty.gov/pds/advance/CREP.html>

The following sections provide an overview of existing renewable energy resources provided by the County and available within the unincorporated communities, and summarize the results of the economic analysis, alternative energy models and best management research, and internal and external stakeholder engagement conducted during Phase I.

1. County of San Diego Achievements in Renewable Energy

The County continues to be a leader in promoting renewable energy and energy efficiency in the region. In 2009, the County approved the Strategic Energy Plan, which is a road map to improve the quality of life for San Diegans by investing in innovative ways to reduce energy and greenhouse gases at County facilities and in the larger community. The County is capturing 2.5% of its annual electricity needs for County-owned facilities through approximately 20 small photovoltaic (PV) systems at local parks and recreation centers, and through a Power Purchase Agreement completed in 2011. These efforts will provide an estimated 2,867 megawatt hours of renewable energy annually, and reduce greenhouse gas emissions by an estimated 2,015 Metric Tons per year.

The County recently updated the 2009 Strategic Energy Plan to include renewable energy goals for 2015-2020 such as:

- reduce energy use intensity by 10% comparing data from Fiscal Year 2019-2020 against baseline data from Fiscal Year 2014-2015;
- realize cost avoidance and savings through energy savings opportunities and new technology;
- realize a 10% reduction in greenhouse gas emissions for all new County-owned vehicles comparing data from 2020 against baseline data from 2015;
- facilitate development and use of renewable energy that is compatible with natural resources and community character;
- reduce demand for fossil fuel consumption and address vehicle emissions by reducing vehicle miles traveled and promoting alternative fuel vehicles; and
- develop greenhouse gas reduction targets and establish mitigation measures and adaptation strategies for unincorporated areas of the County.

On June 10, 2016, the County was recognized for being a leader in energy efficiency at the 11th Annual Energy Showcase hosted by San Diego Gas & Electric (SDG&E). The County was among 11 San Diego businesses and organizations that were named 'Energy Champions' for their investments and commitment to sustainability and energy efficiency in the San Diego region.

The Energy Showcase highlighted the County's achievements in partnering with SDG&E to implement strategies in the County's 2015-2020 Strategic Energy Plan. The Energy Champion award distinguishes the County as a leader in energy efficiency and sustainable innovation with the main focus of improving the quality of life for San Diegans.

In 2015, the County received more than \$150,000 in rebates from SDG&E to replace inefficient lighting at a half dozen County facilities. The lighting projects reduced the County's utility bills by saving 3 million kilowatt hours of electricity. Similarly, the County completed retrofits of 2,246 County-owned and operated streetlights with LED fixtures, which will reduce an estimated 1.8 million kilowatts per year and provide approximately \$150,000 in energy cost savings annually.

Throughout 2015 and 2016, the County installed 37 electric vehicle charging stations at 11 different sites, completing the County's Electric Vehicle Supply Equipment network for the public and County employees. The County permitted 41 electric vehicle charging stations in Fiscal Year 2016, more than triple the amount permitted in Fiscal Year 2014. In addition, the County purchased 17 hybrid vehicles to replace mid-sized, standard gas powered vehicles in the County's fleet.

In May 2016, the Alpine Library was opened as the County's first Zero Net Energy building. Using state of the art technology, the library offers the community more services and more hours in a building that is four times the size of the previous facility. As a Zero Net Energy building, the total amount of energy used by the Alpine Library on an annual basis is approximately equal to the amount of renewable energy created onsite. The Alpine Library is estimated to save \$15,000 in energy costs annually. The Imperial Beach Library is currently under construction as the County's next Zero Net Energy building.

In terms of large campuses, the County Operations Center in Kearny Mesa uses high efficiency mechanical and lighting systems and onsite energy generation, which improves energy performance to 42% better than the California Energy Commission's Title 24 requirements. The campus is supplemented with electricity from the 435 kilowatt PV system on the parking facility and provides electric vehicle charging infrastructure. The campus has achieved Leadership in Energy and Environmental Design Gold and Platinum Certifications, and earned numerous awards for design and sustainability including: SDG&E Energy Leader for New Construction; California Center for Sustainable Energy Outstanding Governmental Building of the Year; San Diego Architectural Foundation People's Choice Orchid Award; and the American Institute of Architects California Council's Merit Award for Sustainable Design.

To date, the County has approved two large-scale wind projects and 10 large-scale solar projects in the unincorporated County. In 2013 and 2015, the County approved ordinances to amend the Building Code to promote photovoltaics, wind energy, and electric vehicle charging systems and to expedite processing of small, residential rooftop solar permits. The County received national, state and local awards for streamlining solar permitting. Solar permitting is available to be fully processed online, issued within the same day, and with waived fees. Some of the County's renewable energy permitting efforts include the following:

- averaged 6,555 residential PV permits issued each year, and increased residential PV permits 90% from Fiscal Years 2014 to 2016;
- permitted 7,424 residential PV permits online in Fiscal Year 2015-2016, an increase of 47% from the previous year;
- permitted 1,250 residential PV permits in-person in Fiscal Year 2015-2016, an increase of 13% from the previous year;
- permitted 70 commercial solar permits in Fiscal Year 2015-2016, an increase of 67% from the previous year;
- permitted four residential wind turbines since Fiscal Year 2014; and
- permitted more than 189,000 kilowatts of renewable energy.

The County not only provides streamlined solar and wind permitting services, but also supports financing opportunities for solar and home efficiency upgrades. As authorized under California law, the County currently participates in five different Property Assessed Clean Energy Programs (PACE) programs. These programs allow for the financing of energy efficient projects, water efficiency projects and renewable energy upgrades that can be repaid through annual property tax bills. The County provides information on the following existing PACE programs: CaliforniaFIRST; Figtree PACE; Residential HERO PACE Program; Commercial HERO PACE Program; Ygrene Energy Fund; and AllianceNRG.

In addition, a Green Working Group of the following 11 County departments was established to provide extensive functional threading and bring knowledge and resources together during development of the County's Climate Action Plan:

- Department of Planning & Development Services
- Air Pollution Control District
- Department of General Services
- Department of Public Works
- Office of Emergency Services
- Department of Agriculture, Weights and Measures
- Department of Parks And Recreation
- Health & Human Services Agency
- Department of Environmental Health
- Department of Human Resources
- Office of the County Counsel

The Green Working Group meets on a monthly basis to discuss climate planning best management practices, including potential renewable energy measures that may integrate into the Climate Action Plan.

While the County has undertaken efforts to expand renewable energy and green building development, there is an opportunity for a more comprehensive approach to increase renewable energy opportunities, create jobs in the region, and reduce costs for consumers.

2. EMpower Draft Phase I Report

The following sections summarize the economic analysis, alternative energy models and best management practice research provided by EMpower in the Draft Phase I Report.

a. Economic Analysis

The economic analysis of the Draft Phase I Report examines the possible economic benefits of investing in renewable energy within the unincorporated areas of the County. EMpower used a proprietary analytical tool to model four economic scenarios that investigate how changes in investments and technologies might benefit jobs, incomes and net gains in the renewable energy industry.

First, the model addresses changes in energy bill expenditures over time. For this task, the four scenarios assume different percentages ranging from 33%, 50%, 80% and 100% of electricity will be generated by renewable energy. All scenarios show decreasing energy bill expenditures, or an increase in consumer savings, ranging from 16% to as much as 49% by 2050 (see Table 1).

Table 1 Energy Bill Expenditures in the Unincorporated County (2015-2050)¹

Energy Expenditure	2015	2025	2040	2050	% Change Reduction in 2050 to Reference Case
Reference Case	622	821	1,200	1,547	0%
Scenario I	622	801	1,106	1,294	16%
Scenario II	622	797	1,031	1,132	27%
Scenario III	622	796	967	922	40%
Scenario IV	622	796	934	797	49%

Notes: Numbers may not add up due to rounding. For more detailed analysis, see Empower Report. M = Millions

¹ Numbers are presented in 2012 dollars

Source: Empower Devices (2015)

Overall, increasing mixes of renewable energy options and efficiency will translate into lower energy bill expenditures in the unincorporated areas as soon as 2025.

Next, the model weighs the costs and economic benefits of each scenario. Costs include policies or programs needed to implement each scenario, along with technological investments needed to increase energy efficiency and create more renewable energy options. Economic benefits include net energy savings and net job creation.

In the scenarios, an increase in the mix of renewable energy increases, translates to larger net energy savings and more jobs created. For more detailed analysis, including specific breakdown of economic impacts by 5-year increments, refer to Section 3.3.2.2 of the Draft Phase I Report (Attachment C).

Table 2 Annual Average and Cumulative Economic Impacts of Innovation Scenarios

	Benefit-Cost Ratio	ANNUAL AVERAGE ¹					CUMULATIVE ¹	
		Program/Policy Costs	Technological Investments ²	Energy Bill Savings ³	Net Energy Savings ⁴	Net Job Creation	Investments	Energy Bill Savings
Scenario I	5.3	\$2 M	\$17 M	\$71 M	\$53 M	600	\$500 M	\$2,600 M
Scenario II	2.3	\$5 M	\$45 M	\$120 M	\$99 M	1,000	\$1,900 M	\$4,300 M
Scenario III	1.9	\$9 M	\$84 M	\$167 M	\$137 M	1,500	\$3,100 M	\$6,000 M
Scenario IV	1.9	\$11 M	\$103 M	\$192 M	\$161 M	1,800	\$3,700 M	\$6,900 M

Notes: Numbers may not add up due to rounding. For more detailed analysis, see Empower Report. M = Millions

¹ Annual and cumulative numbers are presented as 2012 dollars

² Technological investments include investments that promote energy efficiency and renewable energy

³ Energy bill savings include savings from the industrial, residential, and commercial sectors

⁴ Net Energy savings subtract policy/program costs (1st column) with technological investments (2nd column).

Source: Empower Devices (2015)

In summary, the economic analysis in the Draft Phase I Report concludes an increase in renewable energy supply will result in an increase in consumer savings and jobs.

b. Alternative Energy Models

The Draft Phase I Report also describes alternative energy models that provide energy customers options to purchase renewable energy through different avenues from the traditional investor-owned utility. Investor-owned utilities are private electricity and natural gas providers.

The California Public Utilities Commission regulates investor-owned utilities such as San Diego Gas & Electric (SDG&E), Pacific Gas & Electric, and Southern California Edison, which comprise approximately three quarters of the electricity supply in California. SDG&E provides energy service to 3.6 million people through 1.4 million electric meters and 873,000 natural gas meters in San Diego and southern Orange counties. The SDG&E service area spans 4,100 square miles and serves the entire geographic area of San Diego County.

There are a number of alternative energy models that provide consumers options beyond the traditional investor-owned utility model. The consultant reports discuss three alternative energy models including Community Choice Aggregation, Direct Access and Sustainable Energy Utility. The reports provide examples throughout the region, and analyze the possible advantages and disadvantages of each. The following discussion summarizes and builds upon the most pertinent information from the reports.

Community Choice Aggregation (CCA) allows city and county governments to pool electricity customers to purchase power, while also allowing them to administer energy programs on behalf of their residents and businesses. A CCA works in partnership with an existing utility, which continues to deliver power, maintain the grid and provide billing. This alternative energy model allows a local community to shape the program and prioritize benefits such as increased investment in renewable energy sources, among others.

To date, CCAs have been established by law in California, Illinois, Massachusetts, New Jersey, Ohio and Rhode Island. Since its passing in 2002, a number of CCA programs have been proposed in California, including programs in San Francisco (CleanPowerSF), the East Bay (Oakland, Berkeley, and Emeryville), and the San Joaquin Valley (San Joaquin Valley Power Authority).

The first CCA program to operate in California, Marin Clean Energy, was formed in Marin County and began serving customers in May 2010. Sonoma County launched Sonoma Clean Power (including Mendocino County) in 2014. The City of Lancaster, through Lancaster Choice Energy, began offering service to select customers in May 2015, with broad public enrollment in late 2015.

Beginning in October 2016, the Peninsula Clean Energy Authority will provide residents and business in San Mateo County and the 20 incorporated cities with clean energy through a CCA. In July 2016, Los Angeles County began investigating a CCA through a feasibility study, and was directed by the Board of Supervisors in September 2016 to explore a Joint Powers Authority with approximately 80 incorporated cities. Similarly, Riverside County has hired a consultant to prepare a CCA feasibility study, and is coordinating with the Coachella Valley Association of Governments regarding local cities joining the effort. The Western Riverside Council of Governments has indicated it will solicit bids to conduct a CCA feasibility study for its 18 member cities as well. Alameda County is also pursuing a feasibility study.

In the local region, the City of Solana Beach published a CCA technical analysis in April 2016, and is continuing to explore the opportunity. The City of San Diego is conducting a CCA feasibility study to determine if community choice will help meet its Climate Action Plan goal of 100% clean energy by 2035.

The California legislature passed Senate Bill 790 in 2011, which required the California Public Utilities Commission to create a Code of Conduct to limit electrical corporations' abilities to market or lobby against Community Choice Aggregators except through shareholder-funded, pre-approved Independent Marketing Divisions. SDG&E is the first electrical corporation to seek approval of such a division. On July 14, 2016, the California Public Utilities Commission passed a resolution to approve SDG&E to form an Independent Marketing Division for CCAs. According to their website, "SDG&E supports a customer's right to choose its electricity service provider, including a Community Choice Aggregator. SDG&E will fully cooperate with the CCA or potential CCA to provide them with information to facilitate the process of investigating, forming and implementing a CCA program, consistent with state law and SDG&E's CPUC-approved tariffs/rules."

Direct Access (DA) gives eligible retail customers the choice to purchase electric power directly from an independent electric service provider rather than through an investor owned utility exclusively. During Fiscal Year 2015-2016, the County saved \$2.9 million, or approximately 15%, average savings for County facilities by procuring electricity through DA.

While similar to a CCA program, DA is different in that it is: (1) not available to residential customers; and (2) by law (i.e., Senate Bill 695) is capped to a set number of gigawatt-hour electric service providers from which a customer can purchase power. This limits the County's ability to ensure that a DA program could deliver increased levels of renewable energy and energy efficiency, as well as reduced levels of greenhouse gas emissions.

Sustainable Energy Utility (SEU) is an independent and financially self-sufficient entity responsible for delivering energy efficiency, energy conservation and customer-sited renewable energy to end users. Through an SEU, energy users throughout a city or state can build a relationship with a single organization whose direct interest is to help residents and businesses use less energy and generate their own clean energy.

As a nonprofit umbrella entity at a city, county, or state level, an SEU relies on a third-party management model, competitive contracting and performance incentives to deliver sustainable energy services across all sectors and customer classes. As such, an SEU is publicly accountable and can be financially self-sufficient. It also has access to a range of potential funding sources and revenue streams and can achieve energy savings without raising taxes or utility rates.

The Sonoma County Water Agency partnered with the Foundation for Renewable Energy & Environment to develop the Sonoma County Efficiency Financing (SCEF) Program. The SCEF is a scaled-down SEU model that does not require legislative action. Under this program, participating organizations contract with private Energy Service Companies to complete energy and water conservation measures. The participating organizations receive substantial utility cost-savings, including a contractual guarantee sufficient to cover the full cost of all retrofit work. The program uses tax-exempt bonds to finance projects.

After summarizing the available alternative energy models, the Draft Phase I Report lists and describes several best management practices that may promote renewable energy throughout San Diego County.

c. Best Management Practices

In the Draft Phase I Report, EMpower identifies approximately 16 best management practices for consideration. The best management practices (“BMP”) are listed below and further detailed in Attachment C.

BMP #1: Amend the General Plan and Add an Energy Element

BMP #2: Establish a New Office of Sustainability

BMP #3: Establish Institutional Capacity such as Community Choice Aggregation, Direct Access or Sustainable Energy Utility

BMP #4: Establish Financial Capacity such as Property Assessed Clean Energy Program, Bonds, Peer-to-Peer Lending or Crowdfunding

BMP #5: Develop a Solar Energy Workforce Development Initiative

BMP #6: Build an Energy Assurance Plan

BMP #7: Increase the County’s Percentage of Energy Derived from Various Renewable Energy Technologies

BMP #8: Establish a Renewable Energy Group Procurement Initiative

BMP #9: Participate in the Creation of a New Regional Energy Network

BMP #10: Create a Renewable Energy Overlay/Combining Zone

BMP #11: Develop a Building Energy Disclosure Program

BMP #12: Promote More Aggressive Building Standards Including the Significant Retrofit of Existing Buildings

BMP #13: Increase Renewable Energy Education and Outreach

BMP #14: Start a Community Solar Initiatives and Legislation

BMP #15: Establish a Microgrid and Develop Policies Related to Microgrids

BMP #16: Establish Electric Vehicle Programs

3. Public Input

The Draft Phase I Report was posted online and parties were notified in April 2016. The Community Planning Group/Sponsor Group Chairs were updated on April 16, 2016 and August 20, 2016. Additional public comments were received at each Technical Advisory Committee meeting.

After the Draft Phase I Report was posted for public review, the County conducted additional stakeholder outreach to solicit input on the 16 best management practices. During a Technical Advisory Committee meeting, attendees recommended the County consider an additional measure, and a seventeenth best management practice was added to the list as follows:

BMP #17: Develop a Legislative Outreach Strategy to Support Renewable Energy Programs

County staff conducted outreach to identify the measures that are most effective in promoting renewable energy in San Diego County. In September 2016, staff solicited input on the 17 best management practices during public meetings in Valley Center and Boulevard, and no additional measures were added.

Valley Center Community Planning Group

On September 12, 2016, staff presented an informational update to the Valley Center Community Planning Group during their monthly meeting. Staff provided a “workbook” and answered questions regarding the 17 measures, and notified attendees of additional opportunities to become engaged in the process. In summary, some participants expressed concern about costs associated with retrofitting existing buildings (BMP #12), and potential changes to the General Plan such as creating an Energy Element (BMP #1). Some also voiced concerns about how current permit applications seek to amend the General Plan, and may affect the CREP or greenhouse gas planning efforts.

In general, attendees recommended the County consider energy conservation techniques such as roof gardens and landscaping (BMP #12), and renewable energy storage mechanisms such as batteries or water (BMP #7). Some participants expressed interest in learning more about renewable energy group procurement initiatives such as the Silicon Valley Renewable Energy Project (BMP #8). The preliminary meeting minutes are included in Attachment F.

Boulevard Public Workshop

On September 13, 2016, staff conducted a public workshop in Boulevard, including a facilitated exercise. Overall, staff heard concerns regarding large-scale renewable energy projects, and strong opposition to an overlay zone (BMP #10). Twenty-six community members attended and shared experiences of local renewable energy projects and potential impacts to human health, environment and workforce.

Through the exercise, workshop participants recommended the County:

- demonstrate regional leadership by generating and using more renewable energy at County facilities (BMP #7);
- consolidate a group of specialists to distribute renewable energy information and answer questions without creating an additional bureaucratic organization (BMP #2);
- be proactive in identifying and analyzing renewable energy legislation such as community solar, net metering, alternative energy models, and microgrids (BMP #17);
- consider community choice alternatives (BMP #3);
- track community solar initiatives to determine applicability to the unincorporated areas (BMP #14); and
- consider establishing a renewable energy group procurement initiative (BMP #8).

After the Boulevard Public Workshop, County staff received 54 letters from Boulevard and Jacumba residents sharing disapproval of prioritizing large-scale renewable energy infrastructure projects as means of reducing greenhouse gas emissions. The letters opposed consideration of the renewable energy overlay zone in the Boulevard and Jacumba community planning areas (BMP #10), but expressed interest in alternative energy models such as community choice and Direct Access options (BMP #3) (Attachment G).

Campo Lake Morena Community Planning Group

On September 26, 2016, the Campo Lake Morena Planning Group held a monthly meeting and voted on agenda item 6a “Review proposed letter for Comprehensive Renewable Energy Program report.” On September 27, 2016, staff received a letter from the planning group regarding, “Missing elements, initial draft of proposed San Diego County Comprehensive Renewable Energy Plan Report” (Attachment H).

In summary, the letter expresses concern that the Draft Phase I Report lacks a greenhouse gas analysis for the best management practices, and the CREP and Climate Action Plan “ignore soil releases altogether” when considering emissions. The letter states an overlay zone would result in releases of greenhouse gas emissions and cause a disproportionate share of energy costs to the backcountry of San Diego County. The planning group recommends that all projects complete a “cradle-to-grave review of greenhouse gas releases” including carbon release or sequestration during vegetation removal and soil disturbance, and emissions from materials manufacturing and transporting, and construction activities.

In conclusion, external stakeholders voiced concern about: renewable energy overlay zones and potential impacts to health, environment and community character; net-metering regulations; rapidly changing legislation and technology; and adding bureaucratic processes that would add little benefit to consumers and residents. Stakeholders commented the County should avoid duplication of efforts by leveraging regional collaboratives, partners and networking groups to provide services such as renewable energy education, outreach and workforce development training.

4. Technical Advisory Committee

External stakeholders were engaged through a series of Technical Advisory Committee meetings on October 2, 2014; January 9, 2015; August 17, 2016; and September 21, 2016.

August 17, 2016 Meeting

During the Committee meeting on August 17th, attendees were asked to identify the measures that would be most effective in promoting renewable energy in San Diego County. Staff presented the best management practices to the Committee members and public attendees, respectively. The “workbook” materials described each measure including potential advantages and disadvantages. Staff answered questions from the Committee members and public attendees before facilitating an exercise to prioritize the best management practices.

In summary, the Committee members and public attendees identified the following three priority recommendations in common:

- provide one point of contact for renewable energy information and sustainability-related resources (BMP #2);
- consider preparation of an overlay zone to streamline the planning and permitting process for renewable energy projects (BMP #10); and
- investigate opportunities to increase the County’s percentage of renewable energy use beyond 2.5% (BMP #7).

The Committee members also commented the County should consider the following measures as priority:

- develop a legislative outreach strategy to support renewable energy programs (BMP #17);
- identify opportunities to support renewable energy financing such as PACE, bonds, lending or crowdfunding (BMP #4);
- consider forming a Regional Energy Network with regional collaborators (BMP #9); and
- identify opportunities to promote electric vehicle use and infrastructure (BMP #16).

Participants from the public recommended the County consider the following measures as priority:

- explore alternative energy models such as Community Choice Aggregation (BMP #3);
- prepare an Energy Assurance Plan to address energy security and resilience (BMP #6);
- increase renewable energy education and outreach (BMP #13); and
- consider establishing a microgrid and/or policies that remove barriers to microgrids (BMP #15).

September 21, 2016 Meeting

Staff returned to the Technical Advisory Committee on September 21, 2016 to share the potential recommendations. There was consensus the following six best management practices are lower priority:

- Amend the General Plan to Add an Energy Element (BMP #1)
- Develop a Solar Workforce Development Initiative (BMP #5)
- Build an Energy Assurance Plan (BMP #6)
- Establish a Renewable Energy Group Procurement Initiative (BMP #8)
- Develop a Building Energy Disclosure Program (BMP #11)
- Promote More Aggressive Building Standards Including the Significant Retrofit of Existing Buildings (BMP #12)

Committee members did not provide consensus on the priorities. However, the Committee and public attendees voiced general support for: investigating alternative energy models; increasing the County's regional leadership through renewable energy generation, storage, transmission or use; promoting alternative fuel and infrastructure programs such as electric vehicle charging stations and rideshare opportunities; exploring renewable energy finance programs; exploring community solar initiatives and microgrid projects and policies; enhancing renewable energy education and outreach; providing a sustainability taskforce to be one point of contact for outreach; and being more proactive through legislative outreach.

5. Ascent Executive Summary Report

Ascent prioritized the 17 best management practices based on a return on investment analysis, or the most benefit and opportunities for renewable energy development and growth. Each measure is analyzed in the Executive Summary Report, including tables that detail the costs and benefits of implementation such as advantages, disadvantages, financing options, and potential implementing body or mechanism, along with a measure of performance, or value, to the County (Attachment D).

A ranking system was used to determine the mix of measures anticipated to be most effective for the County. A low, medium, or high return on investment ranking was assigned based on a number of social, economic, and political factors. For example, a number of the best management practices address ways the County can increase renewable energy opportunities through preparation of additional planning documents. While plans help to consolidate policies and convey a unified approach to an issue, they can also be costly and hard to finance. Because the County is already heavily involved in the climate action planning work program, the same objectives proposed in certain measures can be addressed in the Climate Action Plan. Rather than prepare an Energy Element for the County's General Plan (BMP #1), it may be more beneficial to align renewable energy directives with the content of the Climate Action Plan. While an Energy Assurance Plan addresses energy security (BMP #6), other planning documents such as those from SDG&E or the County's Multi-jurisdictional Hazard Mitigation Plan and Climate Action Plan may be better positioned to outline key assets and ways to increase energy supply resiliency.

Some policy and program measures may be better addressed in the Climate Action Plan to ensure their implementation and greenhouse gas reduction potential. The advantages associated with increasing the renewable energy mix in the County are important, and because the County is currently using renewable energy, there is an opportunity to increase this percentage mix by

implementing changes (BMP #7). The exact percentage change should be aligned with Renewable Portfolio Standard requirements, be consistent with the Strategic Energy Plan, and help achieve greenhouse gas reduction targets identified in the Climate Action Plan.

Overall, Ascent determined the highest return on investment would result through development of a Community Choice Aggregation Feasibility Study, tracking community solar legislation, developing microgrid policies and identifying sites for future microgrids, and creating a renewable energy overlay zone to streamline the planning process time and increase predictable development scenarios. Table 3 lists the 17 measures and prioritizes them based on return on investment.

Table 3 Prioritized Best Management Practices based on Return on Investment		
BMP Title	Summary	ROI
Establish Institutional Capacity	Top Priority: Develop a CCA Feasibility Study	High ¹
Start a Community Solar Initiative	Top Priority: Track Community Solar Legislation	High
Establish a Microgrid and Develop Policies Related to Microgrids	Top Priority: Develop Policies & Identify Sites for Future Microgrids	High
Create a Renewable Energy Overlay / Combining Zone	Top Priority: Reduces Planning Process Time, Increases Certainty for Community	High
Increase the County's Percentage of Energy Derived from Various Renewable Energy Technologies	Better Addressed in the County's CAP	High
Establish Electric Vehicle Programs	Better Addressed in the County's CAP	High
Establish Financing Capacity	Establish Appropriate Partnership/Collaboration	Medium ²
Develop a Solar Energy Workforce Development Initiative	Establish Appropriate Partnership/Collaboration	Medium
Increase Renewable Energy Education and Outreach	Establish Appropriate Partnership/Collaboration	Medium
Develop a Legislative Strategy to Support Renewable Energy Programs	Establish Collaboration with OSIA	Medium
Amend the General Plan and add an Energy Element	Better Addressed in the County's CAP	Low
Establish a New Office of Sustainability	High Administration/Operating Costs	Low
Build an Energy Assurance Plan	Better Addressed in the County's CAP	Low
Establish a Renewable Energy Group Procurement Initiative	High Level of Coordination Needed	Low
Participate in the Creation of a New Regional Energy Network	High Administration Burden	Low
Develop a Building Energy Disclosure Program	High Administration/Operating Costs	Low
Promote More Aggressive Building Standards Including the Significant Retrofit of Existing Buildings	Current Legislation Already Addresses Issue	Low
<p>Notes: CAP = Climate Action Plan, OSIA = Office of Strategy and Intergovernmental Affairs, ROI = Return on Investment ¹ CCA was determined to have a "high" return on investment ranking, DA, and SEU were both determined to have a "medium" return on investment ranking ² PACE and Bonds were determined to have a "medium" return on investment ranking. P2P/Crowdfunding was determined to have a "low" return on investment ranking. Source: Empower Devices (2015)</p>		

D. STAFF RECOMMENDATIONS

Staff recommendations were informed by extensive internal and external stakeholder outreach including a Planning Commission informational item, Community Planning Group Chairs meetings, Technical Advisory Committee meetings, public meetings, and Climate Action Plan Green Working Group meetings. In addition, staff referenced the project and opportunities to provide public input during approximately 20 Climate Action Plan stakeholder meetings, four visioning sessions and two public workshops to date.

Based on public input and the consultants' analyses, staff identified 11 priority measures. The recommendations consider an assessment of cost, financing options, advantages, disadvantages implementation mechanism, and overall opportunity to increase renewable energy development in San Diego County.

For those measures that recommend a study be conducted, staff would return to the Board with a scope and schedule to seek approval and appropriation of funds. In terms of climate planning, the renewable energy measures the Board may direct staff to initiate in Phase II can be integrated into the Climate Action Plan greenhouse gas reduction strategies. The Climate Action Plan will identify specific greenhouse gas reduction targets, and by aligning objectives of CREP Phase II with the renewable energy components of the Climate Action Plan, actions can be tied to specific emissions goals.

Staff recommends the following priority actions for consideration by the Board:

- 1. Prepare a Community Choice Aggregation Feasibility Study (BMP #3).** The County should:
 - perform a study to determine if a Community Choice Aggregation program would be feasible in San Diego County, including an analysis of existing and proposed CCAs in other regional jurisdictions such as Los Angeles County, Riverside County, City of San Diego, and City of Solana Beach, among others; and
 - continue to collaborate with regional partners such as the Climate Collaborative and Local Government Partnership member agencies to assess implementation of other consumer choice alternatives such as Direct Access and Sustainable Energy Utility, or future energy models.

- 2. Track Community Solar and Wind Initiatives (BMP #14).** The County should:
 - track the regulatory decisions established by Senate Bill 43, which have not been finalized to date;
 - consider developing community solar and wind programs in the future for residents in the unincorporated area that are not able to install rooftop solar or wind gain access to these opportunities as a community;
 - collaborate with regional partners such as the City of Carlsbad to harvest best practices and lessons learned associated with existing and proposed community solar and wind projects; and
 - provide information to the public regarding community solar and wind initiatives.

3. **Prepare a Microgrid Feasibility Study (BMP #15).** The County should:
 - conduct a feasibility study to determine if a microgrid program would be feasible in San Diego County, including potential sites where microgrids would be ideally suited to promote renewable energy use, storage and security;
 - include a cost benefit analysis of implementation of a renewable energy microgrid at a County facility;
 - identify ways to streamline the permitting and environmental review process for microgrids; and
 - collaborate with San Diego Gas & Electric, University of California San Diego, local military bases, and other regional partners to address microgrid operations and energy storage and security.

4. **Prepare Renewable Energy Design and Development Guidelines and Zoning Regulations Applicable to the Unincorporated County (BMP #10).** The County should:
 - prepare guidance for renewable energy infrastructure projects such as microgrids, community solar and wind, small-scale solar and wind, biomass facilities, geothermal facilities, electric vehicle charging stations and alternative fuel facilities, energy storage facilities, or others; and
 - prepare an overlay zone study that provides a streamlining mechanism for the Major Use Permit and environmental review processes, including specific measures that avoid, minimize or mitigate impacts to current and proposed land uses, environmental conditions and community welfare.

5. **Increase the County's Renewable Energy Generation, Transmission, Use and Storage (BMP #7).** The County should:
 - determine the specific percentage of increase based on the greenhouse gas reduction targets in the Climate Action Plan, renewable energy portfolio standards, and goals in the Strategic Energy Plan; and
 - identify and prioritize capacity for onsite renewable energy projects including, but not limited to, electric vehicles and charging infrastructure, solar, wind, geothermal, biomass, other alternative fuels infrastructure, and energy storage facilities.

6. **Develop Strategies to Address Barriers to Alternative Fuel Deployment (BMP #16).** The County should:
 - identify a range of strategies related to alternative fuels and electric vehicles in the Climate Action Plan;
 - continue to collaborate with regional partners such as San Diego Gas & Electric, Center for Sustainable Energy and the San Diego Association of Governments to identify opportunities to promote alternative fuel programs such as charging stations and transportation demand management measures electric vehicle rideshare;
 - promote the benefits of the County's Solar- and Electric Vehicle-ready Ordinance;

- identify and advertise opportunities to provide incentives for multi-family units and workplace charging; and
 - identify measures to encourage vendor participation.
- 7. Promote Vetted Renewable Energy Finance Mechanisms such as Property Assessed Clean Energy Programs, Bonds, Peer-to-Peer Lending or Crowdfunding, Among Others (BMP #4).** The County should:
- promote renewable energy financing services and training that have been vetted adequately;
 - support vetting opportunities and help consumers overcome the barriers to accessing renewable energy; and
 - promote financial mechanisms through education and outreach and by building upon strategic partnerships with the Center for Sustainable Energy and San Diego Regional Energy Partnership.
- 8. Develop and Implement a Renewable Energy Education and Outreach Strategy (BMP #13).** The County should:
- build a program to engage internal stakeholders, community members and decision-makers to further promote the benefits of existing and potential renewable energy policies and programs; and
 - continue to market the County's achievements in renewable energy.
- 9. Develop and Implement a Strategy to Support Renewable Energy Legislation that benefits San Diego County (BMP #17).** The County should:
- build upon the existing legislative review process with the Office of Strategy and Intergovernmental Affairs to focus on renewable energy;
 - actively support legislation that promotes renewable energy programs and funding opportunities; and
 - address legislation that affects consumer choices such as California Public Utilities Commission regulations, net-metering restrictions, renewable energy portfolio standards, alternative energy models, and community solar and wind, among others.
- 10. Establish a Sustainability Taskforce within the County's Existing Organizational Framework (BMP #2).** The County should:
- build upon existing enterprise functional threading efforts to further promote renewable energy policies and programs, such as expanding the Climate Action Plan Green Working Group to provide support to the team responsible for implementing CREP Phase II; and
 - provide a consolidated resource for the public to learn about the County's sustainability-related efforts including: County projects, partnerships, policies, and programs; existing and proposed legislation; finance mechanisms; and training and workforce development opportunities.

11. Participate in the Creation of a New Regional Energy Network (BMP #9). The County should:

- continue to explore the feasibility of a Regional Energy Network with the cities of Chula Vista and San Diego, San Diego Association of Governments, and the Port of San Diego;
- continue to collaborate with regional partners to implement and align State-mandated utilities assistance programs, energy efficiency programs, and public-interest research and development programs; and
- continue to monitor the California Public Utilities Commission regulations related to the provision of Public Purpose Program surcharge funds.

E. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE

Recommending actions is categorically exempt from CEQA under Section 15262 of the State CEQA Guidelines because the recommended actions involve only planning studies for possible future actions which the Board has not approved, adopted, or funded. All recommendations identified under Phase II of the work plan will be reviewed under CEQA and will be presented to the Board for consideration.

F. RECOMMENDATIONS

The Planning Commission is requested to:

1. Review the CREP Draft Phase I Report (EMpower 2015) and Executive Summary Report (Ascent 2016);
2. Consider input from the Committee and the public on recommendations for Phase II;
3. Consider staff findings and recommendations for Phase II;
4. Recommend actions by priority for the Board of Supervisors to provide staff direction for Phase II.

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ATTACHMENTS:

Attachment A – Board of Supervisors Letter, September 11, 2013 (4) and September 25, 2013 (1)

Attachment B – Board of Supervisors Minute Order No. 1, September 25, 2013

Attachment C – Comprehensive Renewable Energy Plan Draft Phase I Report (EMpower 2015)

Attachment D – Executive Summary Report (Ascent 2016)

Attachment E – Technical Advisory Committee Approved Meeting Minutes for August 17, 2016, January 9, 2015, and October 2, 2014 and Draft Meeting Minutes for September 21, 2016

Attachment F – Valley Center Community Planning Group Preliminary Meeting Minutes for September 12, 2016

Attachment G – Sample of Boulevard and Jacumba Community Comment Letters Received in September through October 2016

Attachment H – Campo Lake Morena Community Planning Group Meeting Agenda and Comment Letter for September 26, 2016