

November 27, 2017

Mayor Faulconer

Members of the Environment Committee of the City Council

Members of the City Council

City Attorney

City Independent Budget Analyst

City Staff Members Cody Hooven, Jack Clark, Aaron Lu

Subject: City of San Diego Feasibility Study for a Community Choice Aggregate

Summary

SEAB supports implementation of recommendations in the recently completed Feasibility Study for a Community Choice Aggregate for the City of San Diego.

The City's Sustainable Energy Advisory Board (SEAB) is in general agreement with the findings and recommendations of the recently completed "Feasibility Study for a Community Choice Aggregate" in San Diego. The feasibility study is a high-level assessment. It is not a detailed business plan. Recommendations for next steps are designed to further vet assumptions, refine analysis and reduce uncertainties. A summary of the study authors' recommendations for the City's next steps is shown on Attachment 3. They include 1) engaging with the California Public Utilities Commission (CPUC), SDG&E and other stakeholders to reduce uncertainty regarding allocation of costs, especially the Power Charge Indifference Adjustment (PCIA); 2) joining CalCCA, an association of CCAs in the state, to represent City interests in the legislature and relevant regulatory agencies; 3) retaining appropriate industry professionals such as a registered financial advisor, power supply risk management expert, renewable energy generators and/or developers, and others, as needed, to further vet pro forma assumptions and results; 4) exploring economic development and clean energy program opportunities that support resiliency, local job creation, customer benefits and local business investment.

SEAB agrees that these are appropriate next steps and encourages the City to move ahead with them.

Overview

SEAB is committed to helping the City achieve the goals of its Climate Action Plan (CAP), including attainment of a 100% renewable energy supply by 2035.

San Diego's City Council established SEAB to serve as an advisory body to the Mayor, City Council and City Manager on energy policy and future energy needs for the metropolitan San Diego Area and to assist the City's attainment of its energy independence and renewable energy goals (Municipal Code Section 26.04).

SEAB provided comments to the City Council on the PEIR and Implementation Plan for the CAP (November 2015 and February 2016) (SEAB, SEAB Agendas, Minutes, Board Actions, Documents and Presentations, 2015) and offered recommendations on the FY 2018 budget and Municipal Energy Strategy (MES) (SEAB, SEAB Agendas, Minutes, Board Actions, Documents and Presentations, 2017). SEAB's workplan is organized around supporting successful implementation of CAP goals.

The City's CAP requires that the City meet the goal of 100% renewable electricity by 2035. In addition, the CAP seeks to further San Diego's leadership in cleantech, create jobs and increase resiliency for the City.

CAP Action 2.1 is to "present to City Council for consideration a Community Choice Aggregation (CCA) or another program that increases renewable energy supply." The City commissioned a CCA feasibility study in 2016. At the outset, SEAB suggested guiding principles (Attachment 1) as well as minimum performance criteria for environmental, financial and economic goals which the study authors considered in preparing the report (Attachment 2). Assessing opportunities for local distributed generation (DG) and energy efficiency/demand response deployment were outside the scope of the feasibility study and should receive additional evaluation in the future. All other parameters suggested by SEAB were included.

SEAB received the draft study in July 2017. In pursuit of its duty to advise and help the City in meeting these goals, each member of SEAB has reviewed the study and engaged with its authors and City staff to better understand the assumptions, models and findings provided.

Overall, the study finds that it is feasible that a CCA will be able to meet SEAB's suggested minimum performance criteria for all areas included in the scope of the study including greenhouse gas (GHG) reductions, increased use of renewable energy for electricity production, financial stability and local economic benefits.

The study is a high-level assessment of feasibility rather than a detailed business plan. Results are sufficiently attractive to proceed with further work as defined in the study's recommendations (Attachment 3). SEAB agrees that these are appropriate next steps and encourages the City to proceed with these actions. The recommendations included herein are designed to thoroughly vet assumptions, refine analysis and reduce uncertainties.

Environment

Environmental benefits can be derived through higher renewable energy content and reinvestment of surplus funds in local demand-side management programs.

A primary goal in reaching 100% renewable energy is reducing GHG emissions. The feasibility study shows that with its increasing renewable energy supply toward 100%, a CCA could reduce carbon emissions by an additional 11 million metric tons, a 48% reduction over the 50% SB 350 target.

Reductions in GHG emissions are produced by reducing the amount of fossil fuel used and by replacing it with renewable energy. No unbundled renewable energy credits (RECs) are used.

If the City should move forward with establishing a CCA, it will initially enter power purchase agreements. Over time, the CCA may be able to invest in new capacity including the possibility of local projects. Established CCAs in California have already begun to invest in new capacity which is often in

closer proximity to the CCAs service area than sources of the affiliated investor-owned utility (IOU) (DeShazo, May, 2017). Assessing this possibility was outside the scope of the present study and deserves a closer look within the business planning process.

Although the study notes potential for a CCA to create local programs using surplus funds, it does not address specific job, GHG, resiliency or reinvestment impacts of these programs. The study does identify an initial list of six potential program areas including net energy metering, feed-in tariffs, electric vehicle and charging station programs, low-income programs, local generation development and GHG-reducing economic development initiatives. Should the City move ahead with establishing a CCA, this is an area that deserves additional attention to identify potential projects and priorities for local programs.

No attempt was made in this study to quantify health outcomes, such as reduction of criteria air pollutants, or the public health and related economic co-benefits that would be realized.

Finance

Although the study concludes that it is feasible for the CCA to be financially stable and reliably solvent, several issues require further examination during the next phase.

Study recommendations include engaging with SDG&E, CPUC and industry experts such as a registered a financial advisor, power supply risk management expert, renewable energy generators and/or developers and others, as needed, to thoroughly vet proforma assumptions and results. SEAB recommends that the City proceed with further examination of the following items as part of the of business plan development process:

Bond Issuance - The study suggests issuing a bond to finance formation of the CCA. In the base case, for example, the bond would need to be \$410 million. The potential effect of a bond this size on the City's credit rating and borrowing cost should be evaluated.

Staffing Requirements- Assumptions for staffing requirements should be re-evaluated considering experience to date with other models of CCA formation.

Working Capital and Debt Service Coverage – The study concludes that it is feasible for the CCA to be “reliably solvent” because working capital never falls below \$200 million. However, this is below the target amount that was set for working capital. Furthermore, debt service coverage ratio may be too low and should be examined closely.

Monitoring and Mitigating Costs Associated with the PCIA is Critical – The study addresses the Power Charge Indifference Adjustment (PCIA) with an analysis that the authors describe as conservative and based on the best available information. The study also highlights the PCIA as an important factor to monitor and risk to mitigate. For other California CCAs, the PCIA has been unpredictable in recent years. PCIA charged by PG&E decreased by 62% from 2012-2013 then increased by 211% in the three following years (DeShazo, May, 2017). The residential PCIA for Los Angeles increased from \$0.00098 to \$0.00776 per kWh (7.9x increase) and is projected to continue to increase in the next few years (EES Consulting, Inc., April 17, 2017). The CPUC recently opened a Rulemaking (R. 17-06-026) on the PCIA that may provide better transparency to the current methodology, make changes to improve the stability and certainty of the methodology and its results, as well as consider alternatives to the current PCIA. No timeline for a Decision has been provided. It is anticipated that these conversations at the CPUC will

evolve over a period of years. As the City moves ahead to reach its 100% renewable energy goal, SEAB recommends that the City actively engage in the PCIA regulatory proceedings and related working groups so that local needs are considered and addressed by the CPUC throughout this process. In addition to engaging with SDG&E and the CPUC, the study authors recommend joining CalCCA (Recommendation #2). At this stage, the City may be able to join at the affiliate level (\$1,500 per year). Until the CCA is operational or has submitted an Implementation Plan to the CPUC, it may not qualify to join at the \$75,000 level for Operation Membership. SEAB recommends that the City proceed to participate in CalCCA at the appropriate level and stay actively involved in the PCIA proceeding at the CPUC.

Rates and Impact on Ratepayers – To date, the five California CCAs that have been in operation longest have been able to deliver greener energy at equivalent or lower costs than the affiliated IOUs (DeShazo, May, 2017). The authors of San Diego’s feasibility study state that rate estimates used in the feasibility study for San Diego are conservative. Through the business planning process, it should be clearly shown how a CCA will have rates that are at least competitive or better than the incumbent utility.

Net Present Value – A Net Present Value (NPV) of net margins for each scenario and sensitivity was calculated for the years 2020-2035. The reasons for using only years 2020-2035 are understood since these align with the City’s 100% renewable energy goals. However, it is SEAB’s opinion that a longer period, perhaps 30 or 35 years would make more sense as the timeline for the next stage of financial analysis to better account for the upfront and long-term investment in developing a CCA. This longer timeframe is more consistent with the time horizons given to long-life infrastructure investments. We also suggest that the 2035 net margin may be used as a terminal value within the model. Discount rates higher than 4% should also be considered.

Progressive CCA Renewable Portfolio Content (Figure ES-2, p. ES-5) – A table of key operating results by year for each scenario and sensitivity except the progressive renewable portfolio content option was provided. SEAB recommends development of forecasted key operating results for this scenario and confirmation that this scenario fully meets SEAB’s recommended performance criteria.

Risk Mitigation Strategies-In the process of developing risk mitigation strategies, the ways currently operating CCA’s are dealing with risks should be examined.

Economy

Establishing a CCA has potential for local economic benefits and job creation. It should lower rates and enable local investment.

The study’s economic development analysis looks at two areas: disposable income based on lower electric bills and local investment in renewable energy. The analysis of one scenario shows how reduced customer bills (5% average savings) could lead to community reinvestment in growing businesses and creating new jobs. The modeled savings for that scenario show that reduced electricity rates could generate \$59.2 million in increased regional economic activity during 2026-2035 and approximately 545 jobs. Care should be taken to assure that the estimate of impact on job creation is net additions less reductions.

Local distributed generation and demand response deployment should receive additional evaluation. Additional analysis of local clean energy buildout scenarios and attendant jobs and economic impact

should be pursued, with an emphasis on development of new renewable resources from proven developers in San Diego and adjacent counties as well as the potential from energy efficiency and demand-side measures. This analysis should include how this local buildout scenario could prioritize investments, programs, and policies that benefit communities of concern.

Increased use of renewable energy, however it is achieved, should improve air quality and produce positive public health impacts. Positive economic impact of public health benefits is real, but was not modeled in the present study.

The city is encouraged to explore the full range of economic development pathways identified on pages 124 and 125 of the study and, should it proceed with CCA, create a plan for how local economic benefits would be evaluated in procurement and program development decisions at different phases of launch and implementation.

Conclusion

The study finds that it is feasible for a CCA to achieve environmental goals and be financially stable and reliably solvent. There are also risks and opportunities that require further evaluation, mitigation and planning. SEAB therefore recommends that the City proceed with the actions identified as Recommendations of the City of San Diego Feasibility Study for a Community Choice Aggregate

Establishing a CCA has promise as an approach to achieving the City's goals for use of renewable energy and for achieving reductions in greenhouse gas emissions. It creates competition and consumer choice. Furthermore, it offers opportunities for economic development and job creation. SEAB is in general agreement with the study's conclusion that it is feasible to accomplish these goals with a CCA and that the recommendations summarized in Attachment 3 are appropriate next steps.

Meeting the City's commitment to 100% renewable energy by 2035 - through a CCA or other program - will require proactive steps today without full details of how energy markets will change in the future. Risk mitigation strategies should be developed with the assistance of expert legal and financial advisers for any route the City chooses to reach its Climate Action Plan goals.

Choosing to launch a CCA is a serious financial commitment that should not be taken lightly. Several financial issues that require close examination are listed in the section above. Uncertainty around the PCIA is a key issue. SEAB believes that active engagement is the best strategy to mitigate this risk. There are financial risks associated with procuring energy and operating a CCA which can be addressed in business plan and risk mitigation strategies.

San Diego's proposed CCA is materially larger than all CCAs currently in existence which may increase risk exposure in ways not yet experienced by other CCA programs (ES-12, feasibility). The CCA would represent 50% departing load from SDG&E. Study authors state, "the impact on SDG&E of departing load represented by the City CCA would be difficult to predict given lack of comparable examples (page ES-12)."

Reaching the City's commitment to 100% renewable electricity generation is a major energy transition. If the City chooses to establish a CCA to achieve that goal, the CCA should be responsible for more than power purchase. It must be a partner in working towards the City's clean energy goals and the co-benefits of enhanced resiliency and economic development, as envisioned in the CAP.

A feasibility study is one step in a multi-step process for developing a CCA. A formal business plan and implementation strategy, which generally follow a decision to proceed with CCA development, are the appropriate venues to dig into the specifics of governance structure, financing, customer rollout and programming requirements.

With this letter, SEAB recommends that the City proceed with the actions identified as Recommendations of the City of San Diego Feasibility Study for a Community Choice Aggregate

Respectfully submitted,

Julia R. Brown, Chair

Sustainable Energy Advisory Board

Reference List:

DeShazo, J. e. (May, 2017). *The Promises and Challenges of Community Choice Aggregation in California*. Los Angeles, California: UCLA Luskin School of Public Affairs, Luskin Center.

EES Consulting, Inc. (April 17, 2017). *Los Angeles Community Choice Energy Business Plan Update*. County of Los Angeles: County of Los Angeles.

SEAB. (2015). *SEAB Agendas, Minutes, Board Actions, Documents and Presentations*. Retrieved from City of San Diego: <https://www.sandiego.gov/sites/default/files/legacy/environmental-services/energy/programsprojects/seab/pdf/SEABCAPEIRdraft.pdf>

SEAB. (2017). *SEAB Agendas, Minutes, Board Actions, Documents and Presentations*. Retrieved from City of San Diego: https://www.sandiego.gov/sites/default/files/seab_cca_guiding_principles_final_adopted_2015-12-10_0.pdf

SEAB. (2017, March). *SEAB Agendas, Minutes, Board Actions, Documents and Presentations*. Retrieved from City of San Diego: https://www.sandiego.gov/sites/default/files/seab_municipal_energy_strategy_plan_content_recommendations_3_2_17.pdf

Willdan Financial Service and EnerNex. (July, 2017, pages 124, 125). *City of San Diego Feasibility Study for a Community Choice Aggregate*. Willdan Financial Service and EnerNex.

Attachment 1

Sustainable Energy Advisory Board (SEAB) CCA Priority Guiding Principles*

- Model CCA launch as an opt-out program to optimize the purchasing power of the CCA program.
- Consider available information including the third party-sponsored CCA feasibility study funded by the Protect Our Communities Foundation (the POC Report).
- Evaluate the economic development potential of CCA.
- Evaluate the ability of CCA to achieve greenhouse gas (GHG) emission reduction targets.
- Evaluate a resource plan that follows the State loading order with an emphasis on local implementation.
- Evaluate the ability to achieve 100% local renewables by 2035.

Evaluate a business and implementation phase-in plan to achieve targets identified in the SEAB Recommended Minimum Performance Table

(SEAB, SEAB Agendas, Minutes, Board Actions, Documents and Presentations, 2017)

Attachment 2

SEAB CCA Recommended Minimum Performance Results

Category	1-3 Years	3-5 Years	5-10 Years	10+ Years	Result
Environmental					
GHG Reductions		Meet CAP Thresholds		Meet CAP Thresholds	Feasible to Meet
Renewables Percentage	Minimize non-local renewable energy certificates	Minimize non-local renewable energy certificates	Minimize non-local REC's, on track for no REC's by 2035	100% Renewable Energy, with no REC's	Feasible to Meet
Local DG				50% of energy from local Distributed Generation by 2035	Outside Scope of Feasibility Study
Energy Efficiency/Demand Response Deployment			Establish program(s) to meet CAP targets and Ca Long Term EE Strat Plan		Outside Scope of Feasibility study

Financial					
Operating Reserve	Sufficient to establish operations	Enough capital to invest in local projects/programs			Feasible to Meet
Cost of Purchased Energy (PCIA and Electricity)	Not substantially different than SDG&E	Not substantially different than SDG&E	Not substantially different than SDG&E	Not substantially different than SDG&E	Feasible to Meet
Economic					
Impact on Markets and Jobs (Labor, Home Builders, Solar Big & Small, Energy Storage)	No negative effect on local jobs	Positive effect on local jobs	Substantial positive impact on local jobs by 2035	Substantial positive impact local jobs by 2035	Feasible to Meet
Rates to Consumer (Social Cost)	Baseline offering not more than SDG&E	Baseline offering not more than SDG&E	Baseline Offering should show high likelihood of reduced rates	Baseline Offering should show high likelihood of reduced rates	Feasible to Meet

(SEAB, SEAB Agendas, Minutes, Board Actions, Documents and Presentations, 2017)

Attachment 3

City of San Diego

Feasibility Study for a Community Choice Aggregate

Recommendations:

1. Given the nature of PCIA and its risk to the CCA:
 - a. Prioritize the issue.
 - b. Create a strategic plan for addressing the risk.
 - c. Mobilize internal resources to monitor and support the strategic plan.
 - d. Engage with CPUC, SDG&E and other stakeholders to inform a strategic plan and move it forward.
2. Join Cal CCA, an association of CCAs in the state, formed to represent CCAs in the legislature and relevant regulatory agencies (CPUC, CEC, California Air Resources Board).
3. Engage appropriate industry professionals to vet pro forma assumptions and results...ie, registered Financial Advisor, as power supply risk management expert, renewable energy generators, developers and others.
4. Explore economic development opportunities further to fully leverage potential for local job creation and business investment.

(Willdan Financial Service and EnerNex, July, 2017, pages 124, 125)