COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING

TECHNICAL MEMORANDUM

To: Board of Supervisors

From: Rob Fitzroy, Deputy Director

Date: September 8, 2017

Subject: Community Choice Energy Feasibility Study Results

On October 6, 2015, your Board directed staff to return with information on Community Choice Aggregation programs and participate in a feasibility study. The following is a summary of the tri-county (Santa Barbara, San Luis Obispo, and Ventura counties) regional community choice energy (CCE) feasibility study (Tri-County Feasibility Study) results. The study will be publicly released on September 11, 2017.

KEY FINDINGS SUMMARY

The feasibility study and subsequent peer review suggest that a newly created tri-county CCE program spanning San Luis Obispo, Santa Barbara, and Ventura Counties is **likely not** a feasible venture in terms of the CCE program's ability to provide competitive rates and generate the revenue required to meet policy objectives.

The results of the peer review study, however, indicate that it **may be feasible** for a smaller scale, either local or regional, CCE program operating within Pacific Gas and Electric Company (PG&E) territory to offer competitive rates while meeting policy objectives, such as higher percentages of renewable energy and local renewable energy projects. Further analysis would be required.

CCE Background

CCE, also known as community choice aggregation (CCA), enables local governments to leverage the purchasing power of their residents, businesses, and governments to purchase or generate power for their communities. When a CCE program is formed, the CCE provider purchases the electricity—which typically includes a higher percentage of electricity from renewable resources like wind and solar—and sets the rates charged to customers. The existing investor-owned utility (IOU)—in the tri-county region, PG&E and Southern California Edison (SCE)—continues to deliver the electricity purchased by the CCE provider over its power lines and provide metering, billing, and other customer service.

In 2016, the County of Santa Barbara, with funding from ten other jurisdictions and the Community Environmental Council, commissioned Willdan Financial Services (Willdan) to complete the CCE feasibility study. Staff has been participating in an Advisory Working Group to help guide and oversee the feasibility analysis, provide outreach support, and monitor policy and program developments related to CCE. The Advisory Working Group selected Willdan to conduct the feasibility study, in part, due to its commitment to providing an impartial assessment and willingness to forego future CCE work in the region so as to not bias the outcome of the study.

Tri-County Feasibility Study Scope

The feasibility study evaluates the feasibility of forming a new CCE program run by one or multiple local governments in the Tri-County Region. The study did not consider the viability of one or more jurisdictions joining an existing CCE program. The study assessed financial feasibility in terms of the ability of a local/regional CCE program to provide competitive electricity rates while meeting policy goals and covering substantial CCE program formation costs and ongoing operating expenses over a ten-year study period (2020-2030). The Advisory Working Group selected eight participation scenarios to explore the feasibility of different sizes and configurations for the CCE program and the potential effect of customer demographics.

Tri-County Feasibility Study Peer Review

Evaluating the feasibility of CCE is a difficult, complex, and time-consuming exercise involving numerous variables and assumptions that are predicated on long-term forecasts of conditions and costs within a dynamic energy procurement and regulatory landscape. Given the complexities, the Advisory Working Group took the additional prudent steps of (1) contacting existing CCE program staff to gather additional data related to the costs of operating a CCE program and (2) commissioning MRW & Associates (MRW) to conduct a third-party review of the Willdan draft study. The purpose of the peer review was to evaluate the assumptions and conclusions of the Willdan draft study. MRW suggested several revisions to the Willdan draft study and the pro forma upon which the financial assessment was built to, in the opinion of MRW, improve the reasonableness and efficacy of the assumptions that underpinned the Willdan draft feasibility study.

Tri-County Feasibility Study Findings

CCE program feasibility is typically assessed based on (1) the competitiveness of CCE rates against the existing IOU rates and (2) the long-term financial viability of the enterprise. According to Willdan's analysis, none of the 24 scenarios studied shows a feasible outcome, meaning the CCE rates were neither competitive with PG&E and/or SCE rates, and the CCE program is predicted to have negative net margins in most study years (2020-2030). Given the underperformance of the CCE program in terms of being rate competitive, consistently having negative net margins, and failing to meet the target for working capital, the CCE program under the assumptions used in Willdan's analysis is neither reliably solvent nor financially feasible.

A summary of Willdan's assessment of how electricity rates, the overall electricity bill, and greenhouse gas emissions would change for a typical residential customer under the CCE or existing IOU for the Advisory Working Group participation scenarios is shown in Table 1. The rate comparison is for the generation component of the overall electricity rates only; the delivery rates would stay the same regardless of whether the customer is a CCE or bundled IOU customer. For the Advisory Working Group Middle of the Road (50% Renewable) Scenario, a typical CCE residential customer in PG&E territory (San Luis Obispo and northern Santa Barbara Counties) would, on average, experience nearly 30% higher generation rates, resulting in an extra $16 charge on the customer's electricity bill. A CCE residential customer in SCE territory (southern Santa Barbara and Ventura Counties) would, on average, experience 50% higher generation rates, resulting in an extra $20 on its monthly bill. The rate and bill impact is even higher (more costly) under the Aggressive (75% Renewable) Scenario.

While the CCE Middle of the Road (50% Renewable) and Aggressive (75% Renewable) Scenarios would lower greenhouse gas emissions relative to PG&E's and SCE's electricity portfolios, the Renewable Portfolio Standard (RPS) Equivalent Scenario would increase greenhouse gas emissions for all CCE participation scenarios. The emissions increase is because PG&E and SCE currently have more greenhouse gas-free renewable energy in their electricity supply portfolios than required by the State RPS and, based on renewable energy contracts already signed, are expected to continue to exceed the RPS requirement until at least 2020. If the CCE program were to merely meet—rather than exceed—the RPS, the CCE program would create more greenhouse gas emissions than either IOU in 2020.

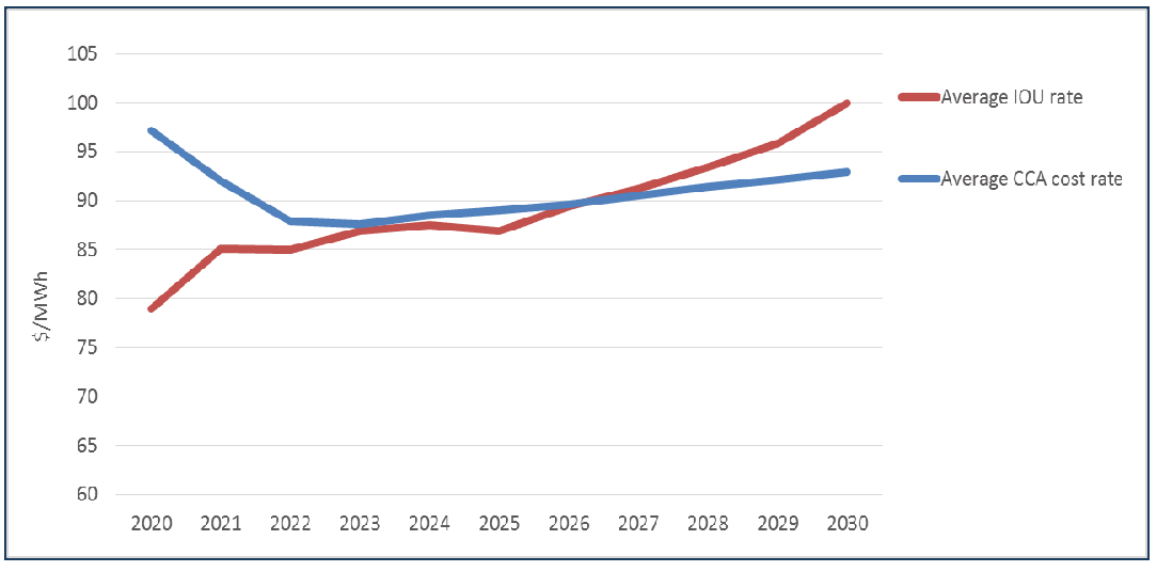
Table 1. Willdan Summary of Forecasted Outcomes for a Typical Residential Customer for SLO County Participation Scenarios in 2020

Participation Scenario	Included Jurisdictions	Renewable Energy Content	Pacific Gas & Electric		Southern California Edison		Proportional GHG Comparison
			Generation Rate Comparison (% Increase/ Decrease for CCA Customers)	Bill Comparison ($ Increase/ Decrease for CCA Customers)	Generation Rate Comparison (% Increase/ Decrease for CCA Customers)	Bill Comparison ($ Increase/ Decrease for CCA Customers)	
All Tri-County Region	All San Luis Obispo County All Santa Barbara County All Ventura County	RPS Equivalent	22%	$11.25	41%	$14.55	6%
		50%	29%	$14.62	51%	$17.93	-9%
		75%	43%	$21.72	71%	$25.05	-55%
Advisory Working Group Jurisdictions	San Luis Obispo County Santa Barbara County Carpinteria Santa Barbara Ventura County Camarillo Moorpark Ojai Simi Valley Thousand Oaks Ventura	RPS Equivalent	22%	$12.21	41%	$16.08	6%
		50%	29%	$15.92	50%	$19.79	-9%
		75%	43%	$23.68	70%	$27.64	-55%
All San Luis Obispo County	Arroyo Grande Atascadero Grover Beach Morro Bay Paso Robles Pismo Beach San Luis Obispo Unincorporated SLO County	RPS Equivalent	29%	$12.07			7%
		50%	36%	$14.89			-9%
		75%	51%	$20.77			-54%
Unincorporated San Luis Obispo County	Unincorporated SLO County	RPS Equivalent	35%	$15.70			7%
		50%	42%	$18.77			-9%
		75%	56%	$25.21			-54%

In its peer review, MRW analyzed the feasibility of a CCE program under the Advisory Working Group Middle of the Road (50% Renewable) Scenario. MRW's analysis generally assumed lower CCE program costs and higher IOU rates against which the CCE must compete, resulting in

MRW showing a smaller delta between the CCE and IOU rates (as compared to Willdan). For the Advisory Working Group Middle of the Road (50% Renewable) Scenario, MRW's analysis shows the CCE program's rates being higher than the weighted average of the IOUs' rates for at least the first five years of the CCE program's operation, as shown in Figure 1.

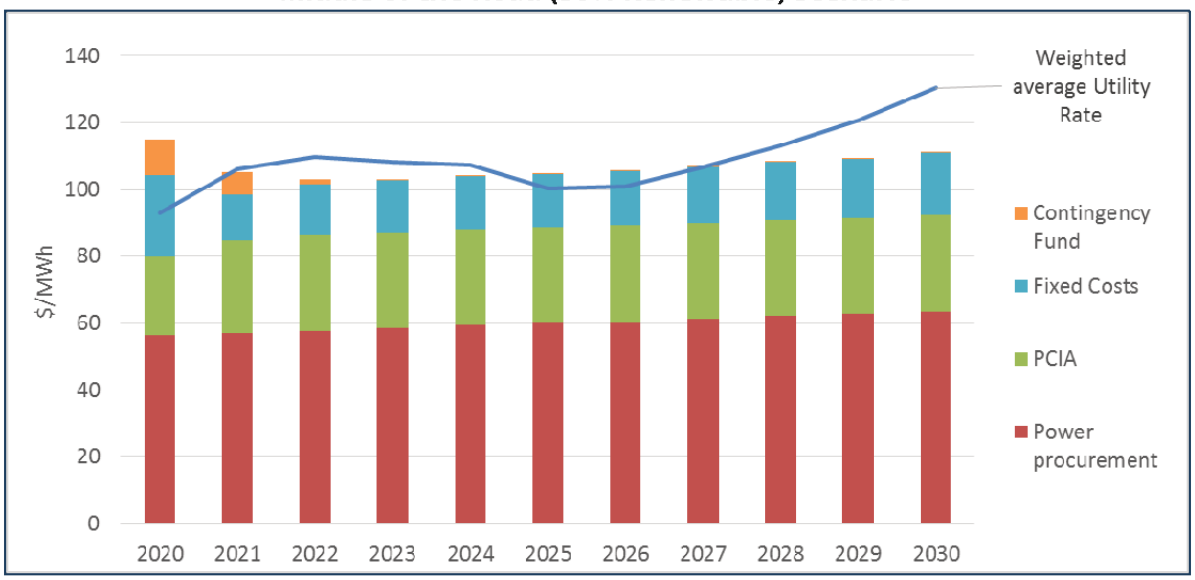
Figure 1. CCE versus Weighted Average IOU Rate Comparison, Advisory Working Group Middle of the Road (50% Renewable) Scenario



Because of the complications of trying to set CCE rates that can compete in PG&E and SCE territory, MRW concludes—consistent with Willdan's findings—that a regional CCE program is not likely to be able to offer rates that are competitive with SCE for CCE customers located in SCE territory. MRW suggests, however, that a CCE program may be able to offer competitive rates for CCE customers located in PG&E territory. To illustrate the potential rate competitiveness in PG&E territory, MRW did a rate comparison for unincorporated Santa Barbara and San Luis Obispo Counties.

Figure 2 shows the CCE program's expected rates (as shown by the stacked bar charts illustrating CCE costs) compared to the applicable IOU rates (blue line) for Unincorporated San Luis Obispo County. Figure 2 shows that, after the first year, the Unincorporated San Luis Obispo County CCE program's rates are expected to also be roughly the same as PG&E's rates, with the exception of a three-year period from 2025 through 2027. This three-year anomaly is due to the anticipated retirement of the Diablo Canyon Power Plant, which, if approved by the California Public Utilities Commission, is expected to temporarily lower PG&E's rates due to the replacement of Diablo Canyon's output with low-cost energy efficiency.

Figure 2. CCE versus PG&E Rate Comparison, Unincorporated San Luis Obispo County Middle of the Road (50% Renewable) Scenario



Additional Feasibility Study

At the October 10, 2015 Board meeting, staff was also directed to pursue a *pro bono* pre-feasibility study with the City of San Luis Obispo. This study, conducted by Pilot Power Group, is less robust in nature, but findings indicate consistency with MRW findings that a new CCA program in the County of San Luis Obispo would be generally rate competitive with the incumbent investor owned utility, and able to generate the revenue required to remain financially solvent. The County of San Luis Obispo is expecting the final draft of the *pro bono* Pilot Power Group pre-feasibility study in late September.

Next Steps

The Tri County Feasibility Study and accompanying peer review will be posted at www.CentralCoastPower.org on Monday, September 11. The Tri County Feasibility Study findings will be presented to the County of Santa Barbara Board of Supervisors on Tuesday, October 3. Other Advisory Working Group members are expected to present the study results to their respective boards and councils after October 3. Staff will agendize this item for Board review and direction at a future Board meeting.

For questions, please contact me at 805-781-5179 or at rfitzroy@co.slo.ca.us.