

Why Community Choice energy programs need utility-grade energy portfolio management capabilities

Community Choice programs are proliferating rapidly throughout California. As of September 2017, there are eight Community Choice programs operating in California, with at least five more planning to launch within the next year. By 2020 an estimated 60% of electricity load currently served by the three large investor-owned utilities will be provided by Community Choice programs.

This expansion of Community Choice in California has brought new challenges. Community Choice programs—both new and established—are now needing to employ more sophisticated energy procurement and risk management strategies to address a rapidly changing energy market.

New and daunting Community Choice challenges

The most apparent challenge facing Community Choice programs is the skyrocketing Power Charge Indifference Adjustment (PCIA) charge levied on Community Choice customers. The purported justification for this ongoing fee is to shield the monopoly utilities from stranded contract losses due to the departure of Community Choice customers. We have reached the point at which the PCIA is impacting the net revenues of Community Choice programs and their ability to compete with the monopoly utilities. While the California Public Utilities Commission (CPUC) has opened a proceeding on this issue, the hostility of the CPUC to Community Choice programs leaves little hope for relief from state regulators.

Another challenge lies in the growth of renewable energy procurement by Community Choice programs, creating an upsurge in demand and greater competition. CPUC actions to open up retail choice or to require more battery storage could change markets and prices. This, combined with the impacts of climate change on hydropower production, changes in the availability of low priced natural gas, and the shutting down of nuclear power plants, creates a more unstable energy market for procurement by Community Choice programs, which could substantially narrow net revenues.

A third challenge arises from the emergence of second generation Community Choice programs—those which place a high priority on the development of local renewable energy resources, such as energy efficiency, storage, demand response, local electricity generation, and other distributed energy resources. These resources must be deployed, integrated, scheduled, and managed effectively and in real time to provide the desired impact. Development of these resources not only offers a host of community-based economic and resilience benefits, but it also provides the best long-term hedge against an unstable renewable energy market, and shrinking net revenues.

Meeting these challenges

In light of these significant challenges, Community Choice energy programs are beginning to adopt a qualitatively more sophisticated approach to managing their energy portfolios than has been employed thus far. As opposed to signing a fixed suite of energy contracts to meet projected load, some Community Choice programs are now attempting to diversify and dynamically manage their energy supply to be more cost-effective, to minimize long-term risk, and to maximize program stability—while optimally integrating distributed renewable energy resources of many kinds.

Most Community Choice programs currently rely on individual power planning consultants and separate third-party power marketing firms to procure and schedule remote power. This results in static, nonintegrated, and potentially risky remote energy procurement, often based on per megawatt-hour commissions with little cost transparency. While this approach might have worked for the first

generation of Community Choice programs, which realized high net revenues, meeting the challenges outlined above will require the more sophisticated energy portfolio management services employed by municipal and investor-owned utilities.

This utility-grade capability consists of an integrated set of services for energy planning, dynamic load forecasting, energy procurement, contracts management, energy scheduling, financial settlements, and robust data management. It enables the integration of a diverse portfolio of energy resources in a way that lowers cost, minimizes risk, and hedges against uncertainties. A number of companies, shown below, have developed these capabilities to serve municipal utilities and to assist investor-owned utilities in California and around the country.¹



Most offer these services to Community Choice programs for a flat fee rather than as a percentage of energy procured, some train their clients to perform these energy services in-house, and some provide services on an at-risk basis, in which payments are deferred until after a Community Choice program is launched.

Community Choice programs adopting energy portfolio manager capabilities

Community Choice initiatives are increasingly recognizing the importance of energy portfolio management services. Below are a few examples.

Redwood Coast Energy Authority

The first program to adopt an energy portfolio manager approach was Humboldt County’s [Redwood Coast Energy Authority](#) (RCEA), which requested these capabilities in its request for proposals² for energy services. As a result, it engaged [The Energy Authority](#) (TEA) to manage its energy portfolio, and launched in 12 months.

According to Matthew Marshall, RCEA Executive Director:³

“TEA is helpful for us because they've got both the analytic capabilities to do forecasting and sophisticated modeling to help us manage risk. And we're able to use their trading desk to execute our procurement process...Instead of having to go and negotiate agreements with all these counter-parties, we can just use the sixty or so they have in the CAISO market and it makes it a more efficient process.

It gives us a lot of flexibility and good capabilities right out of the gate. And it’s good for transparency—we have full visibility into exactly what we're paying for—and the ability to be fairly nimble in the market. So far for 2017 we've executed some twenty different transactions with over a dozen counter-parties for energy, for renewables, for resource adequacy, and we know how much everything is costing and how our hedges are performing against market prices.

And it's also helpful to have that flexibility for integrating local renewables—TEA can adaptively manage the processes, even in this first year, keeping chunks of procurement open while we were negotiating for local renewables...to slot in local resources.”

South Bay Clean Power

Next to recognize the significance of energy portfolio management services was South Bay Clean Power (SBCP), a Community Choice initiative in South Bay, Los Angeles County. The [SBCP Draft Business Plan](#) provides a framework for achieving a Community Choice program with a strong emphasis on distributed energy resource (DER) deployment: a focus on local economic development, jobs and workforce development, and economic and environmental justice.

In particular, the SBCP Plan proposes energy portfolio management services and an organizational structure that would enable SBCP to promote DER deployment, making SBCP, rather than a spontaneous market, the central engine—the DER aggregator—for developing and integrating a variety of distributed energy resources (energy efficiency, local renewable generation, energy storage, demand response technologies, electric vehicle infrastructure, and so forth). Developing, integrating, and scheduling these resources is key to optimizing electricity services to consumers and meeting SBCP's community benefit goals.

Key to supporting this DER platform is the Plan's call for a comprehensive and integrated set of energy services and risk management capabilities that matches that of established utilities.

Valley Clean Energy Alliance

The most recent Community Choice initiative to move toward energy portfolio management services is Yolo County's Valley Clean Energy Alliance (VCEA). In August, the VCEA Board decided to enter into negotiations with the Sacramento Municipal Utility District (SMUD), a municipal utility, to contract for a set of bundled services to help launch and operate VCEA for three years.

This novel arrangement was based on a proposal from SMUD that included energy portfolio management services not offered by other bidders, such as:

- Enterprise risk management: planning, origination/procurement, contract management, active market operations/schedule coordination and financial settlements
- Managing a power portfolio sourced from multiple suppliers of various types including DER
- Credit support options tied to risk exposures and the energy portfolio structure/management
- Establishing procurement and risk policies and procedures to ensure transparency

Utility-grade energy services are becoming a necessity

As Community Choice programs are confronted by new and daunting challenges to their bottom line and stability, they are increasingly turning to more sophisticated energy portfolio manager services. This capability is needed to address regulatory challenges and market instability that negatively impact net revenues and to be able to optimize the benefits and sustainability offered by developing local renewable energy resources.

End Notes

¹ South Bay Clean Power interviewed five leading energy portfolio managers that are offering services to California Community Choice programs, and published this exchange in a [“Q&A with Portfolio Managers.”](#)

² RCEA, [Request for Proposals](#) for Humboldt County Community Choice Aggregation Development and Operations Services, January 2016

³ Matthew Marshall, speaking at a statewide conference call of the California Alliance for Community Energy on June 22, 2017.