



White Paper:
Community-Scale Renewables
and
Monterey Bay Community Power

Summary

Efforts over the past three years to confirm the feasibility of Monterey Bay Community Power (MBCP) are to be applauded. Now, as steps are taken to establish the agency's governing authority, officials should examine renewable energy goals more closely. According to a recently released peer review of MBCP's Technical Study by MRW & Associates, assumptions about achieving 100 megawatts of utility-scale solar development by 2019 "may be optimistic and not met." MRW recommends further analysis to "explore the likely challenge of meeting the schedule set for new renewable project development."

If peer reviewers are correct, shortages in renewable energy supplies could force MBCP to charge higher rates, settle for portfolios that contain less renewable sources of power, and/or rely on more out-of-state resources. As these issues are fundamental to the decision by local jurisdictions to participate in MBCP, planners should revisit these key assumptions as part of the formation process now getting underway.

Community-Scale Renewable Energy

The purpose of this white paper is to suggest a way in which MBCP could bolster the likelihood of achieving its 2019 renewable energy goals and address the issues raised in peer review. The suggestion is that MBCP place less emphasis on utility-scale renewable energy and instead implement a program to catalyze near-term investment in community-scale renewable energy development. The express aim of such a program would be to achieve half of MBCP's 2019 goal—50 megawatts—with community-scale renewable power.

The program could be designed as follows: in the coming year, during the period leading up to MBCP's start-up and before the agency assembles its first portfolio, MBCP would encourage interested customers/developers to apply for community-scale renewable energy projects that

would become operational during MBCP's two-year phase-in period through 2019. The customer/developer would submit such plans at least two months prior to the start of MBCP operations (expected in late 2017) thereby allowing MBCP planners time to make final adjustments in the agency's financial plan before start-up occurs. MBCP, for its part, would agree to accept the renewable power into its portfolio, either paying the customer a subsidized rate for power under a feed-in tariff (FIT)-type program or crediting the customer's utility bill at retail rates under a net energy metering (NEM)-type program.

The program would terminate at the end of 2019, after which time MBCP could evaluate the feasibility of permanently extending some modified program beyond the two-year start-up period. As in any serious promotion of local distributed energy, the permanent program should include measures to flatten the electricity load profile through the use of storage, demand response, and peak-load shifts.

Program Analysis

If structured as a FIT program, the proposed program could be modelled after the Pro-FIT Program offered by Sonoma Clean Energy. Instead of limiting the program to small systems of one (1) megawatt or less, the MBCP program would accommodate larger community-scale systems up to 10 megawatts in size. Some higher level of subsidy would also be appropriate. Sonoma Clean Energy offers \$95 per megawatt-hour to encourage program participation—a subsidy of \$30 over the assumed base rate of \$65 per megawatt-hour, but still less than half of average retail rates. What if, instead, MBCP passed the power through to customers with only an administrative fee, say for a rate closer to \$150 per megawatt-hour?

Fifty (50) megawatts of solar nameplate capacity has the potential to generate approximately 75,000 megawatt-hours annually, so in the conventional way of thinking about it, a rate of \$150 per megawatt-hour would cost MBCP \$6.37 million annually for the duration of the FIT contract period (typically 15 to 20 years). Let us set conventions aside for a moment, though, and examine program costs objectively. Without the program, customers/developers interested in constructing community-scale renewable energy would likely become wholesale energy suppliers (or drop plans altogether). If they chose to become wholesalers, MBCP would purchase such power at base rate and then sell at retail rates, earning a margin on the renewable energy brought online. If, however, MBCP planned at start-up to forego its opportunity to earn a margin on the power purveyed through the program, then it would act simply as a broker between the FIT developer and end customer. Then, what otherwise looked like a hefty program cost would appear to be something more akin to an opportunity cost.

The effect of such a program on MBCP's overall financial strength should be manageable. According to the MBCP Technical Report, MBCP's market for power delivery is estimated to be approximately 3.7 million megawatt-hours annually. A two-year FIT program generating 75,000 megawatt-hours would amount to only two (2) percent of potential sales. It should be possible to plan a financially successful CCE organization with the remaining 98 percent of customer base, representing 3.625 million megawatt-hours of potential sales.

The proposed program could, alternatively, be structured as a NEM program. Under NEM, the customer would build behind-the-meter capacity and receive a credit from MBCP for any excess power generated, which would then be applied to the customer's annual utility bill. Typically, such programs are targeted for smaller projects but in theory could serve community-scale projects as well. The costs associated with NEM programs are an ongoing topic of discussion in the technical community, so evaluating the pros and cons of a NEM approach versus a FIT approach is best left to the consulting experts that are advising MBCP. Perhaps some combination of NEM and FIT that provides for a fuller range of incentives is possible.

Potential Program Benefits

Promoting renewable energy development through a program like the one discussed above could result in substantial benefits for all involved:

- MBCP wins because catalyzing community-scale renewable energy development would mitigate against rising prices for renewable energy. MBCP experts have warned that the market for renewable energy is tightening due to increasing demand, which, in turn, could drive up prices for MBCP and create uncertainty for the new organization at a critical time in its development. Bringing 50 megawatts of community-scale renewable power online would bring lower prices to participating customers and help MBCP achieve its 100-megawatt goal by 2019.
- Local jurisdictions and institutional users win because such a program would encourage the development of community-scale renewables on underutilized lands and rooftops, lessening the pressure to develop rural lands and resulting in significant budgetary savings for the participating customer/developer.
- Labor wins because such a program would infuse money into the local economy, resulting in more local jobs and an overall higher standard of living.

- The state's power grid wins because such a program would promote system resiliency and mitigate against prolonged power outages caused by large storms and other unexpected catastrophes.
- Finally, the region wins because recruiting 21 member jurisdictions plus other large institutions in the region to help MBCP pursue renewable energy development would hasten the transition of our local energy economy.

Timing is Important

Program timing is important. First, there is a 30 percent Solar Investment Tax Credit currently in place to incentivize solar energy development, and this tax credit lapses at the end of 2019. This incentive is critical to promoting renewable energy development, and MBCP should make the most of it. Second, planners expect MBCP to come online in late 2017. If the proposed program is not in place before MBCP's financial plan is finalized, the opportunity may be compromised, and renewable energy development in the region could be stymied for two years or longer until MBCP completes its start-up and brings more conventional programs online.

Recommendations

MBCP should heed the advice offered by MRW & Associates in its peer review and investigate assumptions about the agency's ability to secure 100 megawatts of new utility-scale renewable energy by 2019. This investigation should resolve the issues raised in the peer review and weigh in on the feasibility of placing greater emphasis on community-scale renewables in the Monterey Bay Region as a way of reaching 2019 goals.

The change being proposed here is fundamental to the mission of MBCP, so this matter should be fully explored early on to support local jurisdictions as they make the choice to participate in MBCP.

Respectfully,
The ZeroCity Team