

**VALLEY CLEAN ENERGY ALLIANCE
COMMUNITY ADVISORY COMMITTEE**

Staff Report – Item 9

TO: VCE Community Advisory Committee

FROM: Alisa Lembke, Board Clerk/Administrative Analyst

SUBJECT: Valley Clean Energy's 2019/2020 Integrated Resource Plan

DATE: June 27, 2019

This Staff Report transmits Community Advisory Committee Chair Gerald Braun's memorandum dated June 23, 2019 regarding the Integrated Resource Plan (IRP) update.

Attachment:

1. Chair Gerald Braun Memorandum dated June 23, 2019 regarding IRP Update

To: VCE Community Advisory Committee
Copy: Mitch Sears
From: Gerald Braun, Chair, VCE CAC
Subject: IRP Update
Date: June 23, 2019

Background: VCE is implementing an Integrated Resource Plan (IRP) prepared by SMUD in 2018, approved by the VCE board, filed with the CPUC and accepted by the CPUC. SMUD considered supply portfolio options designated as Base Portfolio, Clean Base and Local Portfolio. The Clean Base option was selected because it better aligned with the decarbonization goals of member jurisdictions than the Base option, was comparably cost-effective, and its costs could be modeled with greater confidence than costs of the Local Portfolio option.

Thus, the current IRP anticipates modest growth in on-site solar deployment from 2018 to 2030 but no purchases of other local and community solar until after 2030.

As an input to the first IRP process, I pointed out that future IRP updates, using better-validated local resource cost information might result in a preferred supply portfolio closer to or resembling the Local Portfolio. I suggested language for inclusion in the IRP that would capture this observation and indicate an intention to determine member jurisdiction benefits of the Local Portfolio option.¹

Discussion: Efforts to determine member jurisdiction benefits of local solar and storage resource development would be responsive to VCE's long term vision (included below) and align with the demonstrated preferences of a numerically significant cohort of current and future VCEA customers, i.e. NEM and EV charging customers.

Relative to other California CCAs, VCEA's service area has an exceptionally high and rapidly expanding proportion of these customers. They are inclined to support local climate action and local resource development. The fact that VCEA's service area provided the impetus for California's community solar legislation testifies to this local area interest.

¹ Attachment 1 includes the recommended language, plus a listing of planning tasks developed by CAC members.

VCEA Long Term Vision:

“The future vision for VCEA is to continuously improve the electricity choices available to VCEA customers, while expanding local energy-related economic opportunities, by:

- Causing the deployment of new renewable and low carbon energy sources;
- Evaluating and adopting best practices for planning and operational management;
- Substantially increasing the renewable electricity content of basic electricity service, with the goal of achieving zero carbon emissions electricity;
- Developing and managing programs for energy efficiency, on-site electricity production and storage;
- Accelerating deployment of local energy resources to increase localized investment, employment, innovation and resilience;
- Working to achieve the climate action goals of participating jurisdictions to shape a sustainable energy future; and
- Saving money for ratepayers on their energy bills.
- Remaining open to the participation of additional jurisdictions.”

Action:

I recently shared an [analysis of member jurisdiction benefits](#) of the existing Yolo County Local Energy Resource Portfolio with CAC members. I recommend that analysis results be considered by staff, consultants and the CAC in the context of future integrated resource planning efforts. I also recommend:

- development of a baseline cost forecast for all categories of local solar, e.g. on-site, community scale, and solar plus storage;
- further work on quantification of local solar environmental, economic, and energy security benefits as an essential complement to analysis of electricity procurement costs;
- development of an integrated local electricity resource plan that complements and dovetails with the current IRP; and
- reference to the [East Bay Clean Energy Local Development Business Plan](#) for an initial menu of goals and programs that might be foundational to integrated local electricity resource development in the VCE service area.

Attachment 1. Recommended IRP text related to VCE member jurisdiction benefits of a Local Portfolio option (July 2018)

1. **Local solar cost baseline and forecast.** VCEA will take steps prior to the next IRP filing to more accurately assess the costs and feasibility of solar (and solar plus storage) projects feeding into local transmission and distribution circuits.
2. **Evaluate environmental, economic and energy security benefits.** VCEA will, in addition, attempt to quantify and otherwise assess the strategic value of other environmental, economic and energy security benefits of a future “local” supply portfolio, including:
 - a. Local economy. Benefits of local resource deployment to local economy (direct, indirect and induced jobs)
 - b. Expanded customer choice. The ability to offer a 100% local renewable tariff, aka Community Solar, which would generate additional revenues and give renters the ability to choose solar.
 - c. Local energy project cost reductions. Local market scale economies (project development, finance and implementation “learning curves”)
 - d. Environmental protection. Environmental and land use impacts (environmental benefits of brownfield and other sites controlled by member jurisdictions vs. out of area greenfield sites)
 - e. Opportunities for aggregation. Long term cost savings deriving from VCEA or third-party aggregation and management of local solar/storage assets
 - f. Facilitate demand response and related savings. Long term cost savings deriving from demand response enabled by solar/EV integration
 - g. Cost avoidance. Avoided transmission and distribution costs resulting from localized supply
 - h. Energy resilience. Economic value of enhanced local energy security made possible by a robust local resource portfolio
 - i. Enable micro-grids. Economic and energy security value of micro-grid deployment enabled by local solar and storage resources
 - j. Energy awareness and literacy. Increased customer energy conservation, efficiency and energy literacy resulting from enhanced customer engagement with VCEA regarding community solar tariffs and net zero carbon retrofits
3. **Consider strategic location of local solar and storage resources to better match member jurisdiction demand profiles.**

Note: The CPUC is addressing some of the above issues on a state-wide basis. Locally-specific strategies and benefits are also available and require local efforts to integrate between imported and locally generated supply and between local demand and local solar and storage. VCEA will work to determine supply strategies consistent with its internal costs and the external benefits to the communities it serves. See below for a menu of relevant planning tasks. As with the above-mentioned steps, they require budget and staff resources that are not yet available.

Five-year Business Plan	<ol style="list-style-type: none"> 1. Five year income statement, cash flow and reserve forecasts, balance sheet. 2. Planned new product offerings and related revenue targets, e.g. EV charging product.
Green Metrics	<ol style="list-style-type: none"> 1. Review PG&E Green Comms information for member jurisdictions. 2. Summarize strategic implications of key individual jurisdiction trends. 3. First annual report summarizing actual vs. forecasted outcomes
Local Economic Impacts	<ol style="list-style-type: none"> 1. Review San Jose area CCA economic impact analysis 2. Determine valid methodology for evaluating economic benefits of local clean energy resource deployment in VCEA jurisdictions. 3. Recommend targets for balancing out of service area resources and in-service area resources.
Solar Plus Storage	<ol style="list-style-type: none"> 1. Identify cost forecasts for on-site, community and utility-scale solar and battery storage. 2. Evaluate and determine best long-term mix of storage coupled and stand-alone storage for on-site, in-service area and outside service area deployment.
Electrification	<ol style="list-style-type: none"> 1. Evaluate the economic implications of alternative heating end use decarbonization scenarios.
Electric Vehicles	<ol style="list-style-type: none"> 1. Determine impacts of EV deployment in the VCEA service territory. 2. Evaluate related early related demand response uses. 3. Evaluate future potential load leveling and energy security uses. 4. Evaluate EV charging incentive programs offered by other CCAs, e.g. SCP.
Community Solar	<ol style="list-style-type: none"> 1. identify inventory of potential sites in the service area, including and esp. brownfield sites. 2. Consider possible pilot program or project for Davis rental and multi-family customers. 3. Evaluate longer term program design options.
Net Zero	<ol style="list-style-type: none"> 1. Evaluate the impacts of new housing developments under the new state standard for net zero electricity. 2. Determine rate options consistent with equitable cost recovery and expected timing of net supply and net usage.

Efficiency/Other Customer-facing Programs	<ol style="list-style-type: none"> 1. Review programs offered by PG&E and other CCAs. 2. Identify best fits for VCEA jurisdictions.
R&D	<ol style="list-style-type: none"> 1. Create initial list of state and Federal programs and pending grant opportunities.
Local Clean Energy Businesses	<ol style="list-style-type: none"> 1. Create a list of clean energy businesses operating in the service territory for possible use in responding to customer inquiries.
Integrated Energy Analysis	<ol style="list-style-type: none"> 1. Review (and update?) DavisFREE integrated energy analysis and main report. 2. Determine future analysis needs for other jurisdictions.
Climate Action	<ol style="list-style-type: none"> 1. Develop an outline for energy sections of VCEA jurisdiction CAAPs 2. Convene meeting to discuss CAAPs with jurisdictions and possibly UC Davis.
PG&E Coordination	<ol style="list-style-type: none"> 1. Recommend priorities for VCEA and member jurisdiction engagement with PG&E.
Demand Forecasts	<ol style="list-style-type: none"> 1. Initiate demand forecasting specific to member jurisdictions.
Environmental Standards	<ol style="list-style-type: none"> 1. Recommend environmental guidelines for projects supplying electricity to VCEA.