



Can Community Choice Drive Local Energy Integration?

California's electric utilities, both investor and publicly owned, are state government's preferred, and historically most opportune, instruments of energy sector policy. They do excellent work operating a business model that has served modern society well for many decades. Model refinements and rule enforcements are initiated when there is an obvious and consequential problem.

With a majority of eligible cities moving forward, Community Choice Energy In California has the vague feel of a third party movement, or even perhaps an insurgency. As yet there is no acknowledged problem to which it presents an obviously necessary solution. As yet there is no clearly articulated statement of the opportunity it creates both the state and its communities. What is local jurisdiction mobilization to decarbonize local energy infrastructure needed?

Problem and opportunity. Best to start looking at both sides of the coin.

The natural reaction of incumbents to the perceived "insurgents" has been on display in events staged in the early months of 2017 - regulatory workshops on Community Choice and also "Retail Choice", plus a second annual symposium on "The Business of Local Energy", aka Community Choice. In these forums, state regulated utilities and their regulators emphasized one point - that the state has ambitious decarbonization goals and a possible pathway to achievement, provided the excellent work being done inside the current electricity service business model is not degraded or disrupted.

It's a fair point.

Is healthy, non-disruptive change possible? Is there a precedent that could help guide their thinking on the question?

There may be. Specifically, in the wake of California's electricity crisis, statewide electricity system operation was entrusted to a third party, i.e. the California Independent System Operator (CAISO). So far, the results appear to have been satisfactory. Alongside the actual grid owners, CAISO is also doing excellent work, and the grid owners seem comfortable with the relatively new arrangement. It has relieved them of major responsibilities without impacting their profitability and has freed them up to tackle a growing body of equally critical work.

Could Community Choice come on stream in California and deliver equally satisfactory results based on excellent work? Under what conditions?

Independence and excellence come to mind. Enabling legislation (AB 117) envisioned independence from state regulation, relying instead on local regulation. Local regulation is implicit in the authority AB 117 accords local jurisdictions to form Community Choice providers.

Regarding excellence, what need does Community Choice meet? Does just meeting it suffice? Or is excellence a higher bar? Who is to be the judge?

Electricity customers and the local leaders they elect are the presumptive judges. Simply purchasing electricity from the sources and projects already developed and operating might meet their need but would not be a game changer. What work can Community Choice do that adds a missing dimension to the current excellent work of incumbent providers, making the result “more than excellent”?

The answer depends on the transformational technologies coming on stream in the energy and transportation sectors. Conversion to low carbon vehicles, low carbon buildings and their shared enabling infrastructure demands unprecedented local as well as higher levels of policy attention, operational engagement, planning integration and deployment facilitation.

If only the new technologies could be made to come on stream slowly, perhaps incumbent energy sector entities could have a primary role in their deployment. Their inertia is proportional to their size, not to mention the body of law and policy that has accumulated over a century or more. But state goals require acceleration, and some communities will want to move faster than others. Their ability to do so will hinge on Community Choice business models that accommodate local diversity, remove obstacles to clean local energy resource deployment and engage local government capacity to deliver programs and implement projects.

Community Choice doesn't guarantee local decarbonization or even any changes that will be noticeable to the typical energy user. But highly noticeable changes will be necessary if local greenhouse emissions are to ramp down vs. just slowly trend down along current trajectories. What is possible without local action will be just plain slow. As it has been since 1990.

Critically necessary changes will tend to decentralize energy infrastructure and services, leading not just to faster decarbonization but also to significant democratization and demonopolization. This will be the new standard of energy sector excellence. “More than excellent” will mean meeting current industry standards while also delivering accelerated decarbonization, increased grid resiliency and stronger local economies.

Energy sector transformation will be driven, not exclusively or even primarily by state or national policy, but rather by local economic and environmental resiliency initiatives and investment. These local initiatives will respond to an awakening recognition that, in a local economy context, importing energy means exporting dollars. How much to energy to import vs. to supply locally is a pragmatic and now widely available local choice having both local economic and resiliency implications.

Timely local decarbonization will hinge on penetration of vehicle markets by battery and fuel cell electric vehicles as well as on pervasive building energy retrofits. These retrofits must aim for deep decarbonization, generally substituting zero carbon electricity for natural gas, and specifically substituting heat pumps for natural gas furnaces and water heaters. Fundamentally, the need is to electrify both transportation and buildings. Simultaneously.

Fortunately, recent and near term energy/transportation technology tipping points make decentralization of energy electricity service inevitable, albeit unlikely to proceed at the same pace in each community and state.

The present California Community Choice formation tipping point creates a need to organize and greatly strengthen local energy management capacity across the board. More and better organized local capacity will be necessary to minimize disruption and societal costs as local energy projects and more flexible local energy infrastructure come on stream. Just adding energy supply service to the list of other services already planned, delivered and competently regulated locally will be an excellent outcome in many cases.

More than excellent Community Choice implementation will enable local investments that drive local decarbonization.

For example, Community Choice electricity service can bypass barriers to community and residential solar while also expanding urban/rural energy exchange. It can help capture the resiliency benefits of micro-grids that enable more economically efficient portfolios of residential and community solar and energy storage. Solar micro-grid deployment by Community Choice providers will enable and motivate faster and progressively more complete local grid modernization.

For all its local benefits, Community Choice is a complement, not a substitute, for active city/county engagement. The examples cited above require the joint and integrative attention of city and county government.

There is also a potential new role for grid owners. Accelerated and economically optimum clean local energy resource deployment may require creation of local independent electricity system operators. These entities will have responsibility for local reliability and real time supply/demand balancing. Alongside or as subsidiaries of grid owners, they will partner with regional system operators to assure fully integrated planning and operation between regional and local grids.

City and county level clean energy deployment choices will determine if, when and how local grids need to change. Community Choice is a work in progress just beginning to take shape. Local grid modernization will ultimately be driven by local policies and choices. Community choice only gets the ball rolling.

California's approach to statewide electricity system planning and operations can inform future local decisions regarding local electricity system planning and operations. From the beginning, CAISO's board included members having high level energy sector experience. Community Choice agency boards and advisory groups will need to tap comparable and more locally focused energy sector experience indigenous to the communities they represent.

In summary, Community Choice will create new models for customer engagement and also engagement with energy managers in city and county government. Energy management capacity building will be necessary at both Community Choice provider and local jurisdiction staff levels. Technical, program,

project and planning collaboration between cities and counties and their Community Choice service providers will be the standard of excellence and the foundation for “more than excellent” local electricity service.

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