

November 28, 2017

To: The Customer Choice Project Team  
California Public Utilities Commission  
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**Comments in response to the  
October 31, 2017 informal public workshop on  
California Customer Choice**

The author of these comments thanks the Commission and the Customer Choice Project Team for convening these workshops and providing comment opportunities to enable wide stakeholder dialog on a topic that is of utmost importance for California's global leadership on energy and environmental policy, and for the near-term and long-term well-being of the current and the next several generations of California residents. The author, Lorenzo Kristov, Ph.D., has had 23 years of professional policy-related engagement in California's electricity sector, including over four years as an energy economist on staff of the California Energy Commission and over 18 years as a principal in market and infrastructure policy at the California Independent System Operator.

The main points of these comments are as follows.

- In order to achieve California's environmental and energy goals, and to strengthen the resilience of electricity systems and other essential services to severe, disruptive climate events, California policy makers and regulators must facilitate substantive engagement by local governments and communities<sup>1</sup> throughout the state in implementing local energy and resilience programs.
- At present the community choice aggregation (CCA) structure is the only vehicle, other than municipal electric utilities and electric cooperatives, that allows local governments and communities to develop innovative, clean energy programs customized to align with local needs, conditions and objectives.
- Framing this inquiry and questions of CCA policy in terms of customer choice or retail choice ignores the underlying drivers for more resilient electric systems that are designed to support local clean energy and other objectives; in fact, opening up broad competitive retail choice would subject local jurisdictions to cherry-picking of the most profitable customers and thereby undermine the viability of energy and resilience programs that benefit a city or county as a whole.
- Policy makers and regulators should therefore focus attention on ways to strengthen and improve the CCA model, to address any concerns or shortcomings that may characterize

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<sup>1</sup> The term "communities" as used in these comments is intended broadly to mean subsets of energy users of all classes within a local government jurisdiction for which common energy solutions are found to be beneficial and of value. Communities could be residential neighborhoods or subdivisions, mixed-use local areas within a city, as well as more functionally integrated areas such as campuses and business parks.

its current incarnations, and do so in collaboration with existing and newly forming CCAs and other local governments, as well as the investor-owned utilities (IOUs), rather than undermining the viability of CCAs by imposing ever-larger non-bypassable charges or pursuing a 20<sup>th</sup> century concept of competitive retail choice that is of limited value for today's challenges.

In view of the increasing frequency and severity of disruptive events we can expect from the damages already inflicted on global climate cycles and regional ecosystems, it is urgent that policy makers recognize local or community-level resilience as a critical strategy for California's future and invest in capacity building statewide to develop community-level resilient energy systems throughout the state to meet 21<sup>st</sup> century challenges.

The next five sections discuss these points in greater detail. Section 6 responds to some of the Commission's workshop questions, and section 7 provides a short conclusion.

***1. Empowerment and support of local governments and communities to implement practical clean energy projects is essential for California to achieve our environmental and energy goals, and to develop greater resilience to disruptive climate events and cyber attacks.***

Resilience is the ability of a system to maintain its intended functional capabilities and continue to provide services in the event of a severe disruptive event. Resilience goes beyond reliability by emphasizing the ability to withstand, without suffering service outages, events that are more extreme than the normal events our electric infrastructure was designed to withstand. Resilience is fundamentally a local capability in the sense that people always have to deal with immediate, possibly life-threatening impacts no matter how geographically widespread the entire event may be.

For the subject and context of these comments, resilience must encompass a larger scope than just the electricity supply system per se. At the local level, a sustained disruption to electric service can mean loss of water supply, wastewater pumping, local telecommunications and vital emergency services. Although electric utilities already prioritize these types of needs for service restoration, the recent tragic hurricanes in Texas, the southeast and Puerto Rico and the fires in northern California should warn us that current capabilities can easily be overwhelmed. Prudent risk management dictates the need for statewide policies and programs to enhance the resilience of communities throughout the state.

Broad electrification as a requirement for reducing carbon emissions is another key element of California policy where effective local government and community engagement is needed. More and more California cities and counties are recognizing that planning is at the heart of creating a sustainable future. Electrification of transportation means much more than getting people to trade in their fossil-fuel vehicles for electric ones; it requires redesigning the patterns of movement of people and goods so as to reduce reliance on motor vehicles and vehicle congestion as well as total energy consumption, in alignment with a compelling vision for enhancing overall quality of life.<sup>2</sup> A similar story can be told with regard to electrification of buildings, particularly existing

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<sup>2</sup> For example: "It is clear that the path toward realizing our vision will require a single unified strategy, one that integrates planning for how we use our land with planning for how we get around. Here is what we mean: we

building stocks for which optimal retro-fit strategies will depend on many local factors such as climate zone, demographics, geography, and economic capabilities, all of which tie back to local government planning.

Recent California legislation has also emphasized environmental justice, making it clear that strategies and programs for achieving climate and energy goals must also substantively enhance the quality of life in communities that have been disproportionately impacted by fossil-fuel-based growth yet received far less than their fair share of the benefits of the world's fifth largest economy. Economic justice requires much more than eliminating fossil-fuel generating plants in poorer neighborhoods; it requires addressing fundamental needs including access to health care, quality food, transportation, recreation and meaningful jobs that pay living wages. Local energy and resilience projects can be especially effective in creating meaningful high-quality local jobs.

Finally, it is important to recognize that electric service is a core function underlying all of the above goals and strategies. And now, because the technologies for small-to-medium scale and behind-the-meter electric systems are so rapidly declining in cost while increasing in capability, it makes sense to posit and work towards a future vision in which local energy systems power the strategies and programs to accomplish the above objectives. In all these areas, achieving policy goals across the entire state will require partnerships between local governments, the traditional electric industry players, the diverse new entrants, and the state policy makers and regulators. In particular, policy makers and regulators will need to invest in building human resource capacity in those local governments and communities that might otherwise be left behind.

***2. Electric service is perhaps the most crucial element of energy transformation and resilience at the local level. Currently the community choice aggregation (CCA) structure is the only vehicle, outside of municipal electric utilities and cooperatives, for local governments and communities to customize their energy systems to align with local needs, conditions and preferences.***

The CCA structure may be viewed as a means to an end, rather than an end in itself. The end in this context is accelerated action at the local level to achieve California's goals as a global leader in reducing carbon emissions and strengthening local resilience to disruptive events. Currently the CCA structure is the only vehicle outside of municipal electric utilities and cooperatives that enables local governments and communities to customize their energy systems to better align with the energy needs and environmental and economic objectives of their resident households and businesses. And from today's starting point, there are a couple reasons why forming CCAs is a more practical approach than municipalization. First, CCAs preserve an essential role for the utility distribution company (UDC) within each of the investor-owned utilities (IOUs). Indeed,

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can choose to build new sprawling communities that pave over undeveloped natural lands, necessitating the construction of new roads and highways—which will undoubtedly become quickly overcrowded and contribute to regional air pollution and ever-increasing greenhouse gas emissions that affect climate change. Or, we can grow in more compact communities in existing urban areas, providing neighborhoods with efficient and plentiful public transit, abundant and safe opportunities to walk, bike and pursue other forms of active transportation, and preserving more of the region's remaining natural lands for people to enjoy. This second vision captures the essence of what people have said they want during SCAG outreach to communities across the region." Southern California Council of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, adopted April 2016, page 2.

the distribution wires utility, with enhanced capabilities to manage higher volumes of distributed energy resources (DERs) and to support diverse local energy initiatives,<sup>3</sup> may well be the most attractive and viable future business model for the UDCs. Second, a CCA is less costly for a local government to implement, because it does not require taking on distribution system ownership, maintenance and operations, or the lengthy and litigious condemnation procedures that usually characterize municipalization initiatives. For these reasons, policy makers and regulators should view CCAs and the current California CCA movement as a promising vehicle for achieving state environmental and resilience goals, and to that end should focus on policies that will strengthen the CCA framework.

Although some utility representatives have expressed concern that CCA is a “gateway drug” that will lead to more municipalization in the state, the opposite is more likely. The more the UDCs work in partnership with local governments to enable local programs and projects for energy and resilience, the less need to form municipal electric utilities. Conversely, the more the regulatory framework remains skeptical of or even hostile to CCAs and increases barriers, the greater will be the need to municipalize as the only way to implement local energy and resilience programs.<sup>4</sup>

***3. Framing the policy landscape regarding CCAs in terms of “customer choice” or “retail choice” ignores the fundamental needs for energy localization and local resilience, as discussed above, and would in fact seriously undermine those objectives.***

The Commission is to be commended for proactively opening its exploration of alternatives to traditional utility retail electric service bundled with distribution service. Framing this effort in terms of customer choice, however, does not quite hit the mark. The evolving market for electricity is no longer a market primarily for kWh delivered from the grid. The market today is moving behind the customer meter in the form of devices and systems that provide electric energy and manage its usage and storage, relying on the grid only for residual supply and other network services. Unfortunately, though these technological trends are clearly visible, most industry discussions in both the business and regulatory realms fail to question the mainstream economics paradigm which views the individual customer as the fundamental decision maker and unit of analysis. This leads to highly inefficient restrictions in the energy realm; for example, requiring a household to limit the size of its rooftop solar array to match the annual needs of the home, when it would make much more sense to view all sunny rooftops as a community supply resource.<sup>5</sup> Following the argument section 1, the importance of electric service to local resilience

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<sup>3</sup> The US Department of Energy’s DSPx project has published detailed reports describing the new and enhanced functional capabilities needed for distribution utilities to provide efficient, reliable distribution services in a high-DER context. See [doe-dspx.org](http://doe-dspx.org)

<sup>4</sup> A timely example of potential local government-UDC collaboration for mutual benefit could be the creation of municipal broadband fiber-optic telecommunications systems. Numerous cities in the US have implemented city-owned fiber-optic systems, but up to now all have been municipal electric utilities. The potential synergy and investment efficiency between fiber communication for high-speed internet service and for modernization of electric distribution grids was first demonstrated by the city of Chattanooga about 20 years ago. But up to now there are no examples of such projects being implemented as a joint effort of a local government and an investor-owned UDC.

<sup>5</sup> The San Antonio Texas municipal electric utility created a program whereby they contract with solar developers to place solar panels on sunny residential rooftops. The utility buys the solar energy under power purchase agreements with the solar developers as part of its supply portfolio, and pays the homeowners three cents per

requires that policy makers and regulators think about the community as the unit of analysis and the key decision-making actor, and then explore new policies that go beyond trying to shape individual customer behavior by altering the customer's private benefit-cost tradeoff.

Framing the current CCA policy landscape in terms of customer choice is likely to be more problematic than just missing the point of community-based energy. Enacting a broad customer choice framework in California could seriously undermine the objectives stated in section 1. As noted above, CCA is not just about the choices of individual energy users, it is about local government-level and community-level decisions to create local energy systems that benefit the community as a whole. Traditionally the provision of electric service has been structured in terms of the supply infrastructure on one side and the individual end-user (or consumer or ratepayer) on the other side. That structure is no longer adequate for implementing California's environmental goals or for creating greater resilience to disruptive events. Resilience is in essence a community capability. An individual household has limited capability to withstand a major disruptive event, but at the local government level there are practical strategies that can and should be pursued with some urgency to strengthen resilience.

Second, competitive retail choice will undermine the financial viability of a CCA because the business model of non-utility retail electric service providers (ESPs) is to cherry pick the most profitable customers without regard to impacts on the larger community, leaving less profitable to be served by the default provider – in this case either the CCA or the UDC. Thus a more open retail choice framework would go in exactly the opposite direction of what's needed to achieve the objectives in item 1; it would segment communities into individual end-users concerned only with their own bottom line, rather than foster community-level energy programs that advance environmental goals and address local resilience needs.

ESP cherry-picking will also undermine efforts for greater environmental and economic justice, again because it will severely limit the ability of local governments to enact projects at scale to benefit their entire jurisdiction. Recent California legislation has placed great emphasis on equitable treatment of disadvantaged communities with regard to the benefits of clean energy. Environmental justice and energy democracy have now become familiar terms in the policy conversation. It is important to see that we cannot achieve equitable treatment of economically disadvantaged people and communities simply by providing discounted retail rates or refraining from building polluting power plants in their neighborhoods; these measures are valuable but not sufficient. Rather, these communities need real economic opportunities and basic human services that have continually been under-provided. In this regard, community-level energy and resilience programs can create local employment and other economic benefits.

In short, framing the current movement toward CCAs as customer choice or retail choice is a reversion to a 20<sup>th</sup> century concept that is simply not useful for the challenges we face in the 21<sup>st</sup> century.

***4. Recognizing that legitimate concerns exist, on all sides, regarding some aspects of the current CCA structure and regulatory framework, California regulators should focus***

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kWh produced for hosting the solar panels. See

[http://www.slate.com/articles/technology/the\\_juice/2015/09/solar\\_panels\\_from\\_cps\\_energy\\_the\\_san\\_antonio\\_utility\\_s\\_brilliant\\_new\\_business.html](http://www.slate.com/articles/technology/the_juice/2015/09/solar_panels_from_cps_energy_the_san_antonio_utility_s_brilliant_new_business.html)

***on improving the CCA framework to make local government-based and community-based energy a viable strategy for all California communities.***

In making the argument above I am not claiming that the current CCA model and its multiple implementations in California are without shortcomings, or that the regulatory framework for CCAs is complete and without significant gaps. Indeed, there is much to be done to enhance the current CCA model and regulatory framework to achieve the goals I have described. My most important point, however, is that these shortcomings and gaps should be met with a concerted effort to improve the landscape to make local government-based and community-based energy a viable construct for all California communities, because such local initiatives are absolutely necessary for achieving the state's environmental goals and for building resilience.

One concern sometimes voiced against CCAs is that the more affluent areas of the state will be able to benefit greatly from forming CCAs while other less economically healthy communities will be left behind, or worse, will have costs shifted onto them. It is critical that no community be left behind in the effort to implement local energy and resilience strategies. Explicit and well-funded statewide capacity building can be effective in enabling the entire state to move forward to realize the benefits of community-based energy. To this end, California should invest at the state level in building capacity at the local level, in all cities and counties throughout the state, to enable them to begin implementing local energy, electrification and resilience projects.

- 5. The regulatory framework for CCA should include specific direction for the utility distribution companies (UDCs) of the Commission-regulated utilities to collaborate with local governments to design and implement local energy and resilience projects. This would have the additional benefit of helping to shape a viable future business model for the utilities as distribution service providers to support local energy systems and community microgrids.***

Policy makers and regulators have undoubtedly begun to consider the distribution wires utility as a viable future business model for the investor-owned UDCs. Now that the future utility business model has become a hot topic in the industry, there are two related issues that are both within the conventional scope of customer choice and also relevant for the expansion of CCAs and local energy systems. These are: unbundling of the retail supply function and the distribution wires function of the investor-owned UDCs, and creating a workable provider of last resort (POLR) framework that does not rely on the UDC.

To get into detail on either of these topics is beyond the intent of these comments. Suffice for now to say that unbundling of retail kWh supply from distribution service would facilitate much clearer, more logical thinking about the features and functions would comprise a desired future for the regulated utilities. This is particularly true in light of the observation made earlier that the electricity "market" is shifting to a behind-the-meter market for devices and control systems that will enable energy users of all kinds to manage their energy sources and uses on-site and rely on kWh from the grid only for residual supply, backup services, and possibly new types of network services being explored in the industry. A crucial policy question in this context is to reconsider the appropriate scope for a regulated monopoly service provider whose cost recovery will be ensured through regulated retail rates. Unbundling the retail energy supply function from the

distribution wires service will be a useful starting place for considering this question more comprehensively.

The POLR question is another matter to be addressed in the policy realm. The root of this question goes back to the origin of Direct Access in California in the 1990s, and lies in the fact that retail customers in utility service areas that allow retail choice can migrate between retail providers and may even choose not to participate in retail choice – to opt out of the entire retail choice enterprise by remaining with bundled utility service. The arrival of CCAs into this landscape brings new prominence to the question due to the sheer volume of retail customers expected to participate in CCA service, and who may at any time, at least in theory, opt out of the CCA and return to UDC retail service. The problem is that the POLR responsibility placed on the UDCs is not without cost, and it must be questioned whether POLR is best provided by a regulated monopoly as the industry moves into a more decentralized structure.<sup>6</sup>

Resolving the above questions and defining future utility models in full detail will take time, of course. But in the meantime policy makers and regulators should be formulating policies and regulations that direct the regulated UDCs to engage with CCAs and other local government entities to develop energy and resilience projects that are designed to meet local circumstances and objectives. For example, planning for DER growth may be most effective as a joint effort by a city or county agency and the UDC. The city or county would bring the specific objectives it wants to achieve, such as community solar-plus-storage installations, municipal EV charging, microgrid functionality for essential local services, etc. The UDC would bring its knowledge of the distribution system, including its analyses of hosting capacity and locational net benefits, and the two would jointly formulate a DER plan that meets the local objectives while making most efficient use of distribution capacity and grid modernization investments. There are many more possible ways for local governments and UDCs to engage in mutually beneficial collaborations; these activities should be encouraged as a matter of policy.

## ***6. Response to questions posed by the Commission and the Project Team***

I will offer a few further thoughts in response to the “Post Workshop #1 Questions” posted on the Commission’s web page for this workshop.<sup>7</sup> The first observation is that the questions are mainly geared toward comparing different models or implementations of retail choice focused on the individual customer as the unit of analysis and energy decision maker. There are no questions like: How does this choice model enable local governments to achieve local energy, economic and resilience objectives? The workshop questions do not recognize, for example, the importance of electric service for creating sustainable local transport services or enhancing the resilience of essential municipal services, which are community-wide benefits that are not achievable through

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<sup>6</sup> It should be noted that there is no opt out for energy users within the jurisdiction of a municipal electric utility. The decision to municipalize is an act of local government, which should of course be taken with open public deliberation and ample public participation. But once the decision is taken, one could argue that there should be no opting out for a person or entity located within the jurisdictional boundaries, just as one cannot opt out of municipal water, sewer, waste removal, police and fire protection services. It is not clear why a CCA – a “muni-lite” electric utility – should be any different in this regard. Elimination of opting out of CCA service would solve the POLR issue at least in CCA areas.

<sup>7</sup> See [http://www.cpuc.ca.gov/uploadedFiles/CPUC\\_Public\\_Website/Content/Utilities\\_and\\_Industries/Energy\\_-\\_Electricity\\_and\\_Natural\\_Gas/California\\_Customer\\_Choice\\_Project-CPUC-Post\\_Workshop\\_Questions.pdf](http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/California_Customer_Choice_Project-CPUC-Post_Workshop_Questions.pdf)

individual customer decisions. And there is no recognition of local planning functions as key elements for achieving broader statewide goals. As these comments have argued, the Project Team and the Commission should revise the framing of their inquiry with communities and local government entities as the unit of analysis and energy decision maker.

Secondly, there are a few changes to the principles and key questions that would be useful. The list of principles should include electrification of the non-energy sectors, most notable buildings, transportation and agriculture. Although one could argue that this is included with “California’s Environmental and Climate Goals,” there are no questions that seriously examine how customer choice will contribute to broad electrification of these other sectors. As I stated earlier, effective electrification of transportation is not achievable solely through individual customers swapping electric vehicles for combustion engines one at a time. And the retail ESPs will target customers that maximize their profits without regard to broader state policy goals.

Another recommended change is to list a separate resilience principle and define it in terms of sustaining the essential quality of life services that local governments provide, and in terms of mitigating the risks of increasingly frequent and severe disruptions.

Overall the questions posed suffer from the narrow framing of the issue to be about individual customer choices when the needs of our time must engage local governments and communities. This is not to say that consumer protection and universal service are unimportant; they surely are important and must be addressed. However, the needed regulatory framework must address ways to achieve community-wide benefits that are not normally or easily quantified in each individual customer’s benefit-cost assessment.

## ***7. In conclusion***

It is absolutely crucial at this time that policy makers, regulators and the major industry players put behind them their anxieties about CCAs, cease trying to hamstring or defeat them, and turn their attention toward a viable and effective statewide approach for enabling community-based energy as a means to achieve substantial and rapid decarbonization of the California economy and to strengthen community-level essential services for resilience to severe weather-related and other disruptive events. I’m confident our children and their children and grandchildren will ask whether we really did enough to deal with the challenges facing us and them in the 21<sup>st</sup> century, challenges largely of our own making, and so we should do our best to ensure they have a basis to thank us for responding with effective focus and deliberate urgency.

Thank you for your consideration of these comments.

Respectfully yours,

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