

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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Order Instituting Rulemaking to
Modernize the Electric Grid for a
High Distributed Energy
Resources Future

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**COMMENTS OF THE LOCAL GOVERNMENT SUSTAINABLE ENERGY COALITION
(LGSEC)**

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Introduction

The Local Government Sustainable Energy Coalition (LGSEC) represents 14 cities and 23 counties, jurisdictions that govern almost three-quarters of the state's population, and close to two-thirds of California's electricity demands. What's more, LGSEC members serve as administrators, designers and lead implementors of a host of energy efficiency, demand response, building decarbonization, transportation electrification (TE) and other energy management programs.

LGSEC welcomes this opportunity to determine how best to encourage distributed energy resources (DER) and TE deployment in ways that maximize environmental, equity, and economic benefits. This proceeding is particularly apt given growing threats to electricity affordability and resiliency.

As discussed at the February 24, 2021 Rates *En Banc*, while California's electricity supplies are amongst the greenest in the nation, its prices are amongst the highest, with additional billions of taxpayer dollars spent annually on wildfire response, vehicle electrification efforts, and the like. Steadily rising rates have had a disproportionate negative impact on lower-income Californians.¹ Under status quo policy conditions, affordability is likely to continue to degrade. For example, Pacific Gas and Electric Company (PG&E) is requesting a 48 percent increase in distribution revenue requirements as part of its 2023 General Rate Case (GRC), without accounting for the investor-owned utility's' (IOU) recent proposal to underground thousands of miles of distribution infrastructure.

¹ See *Utility Costs and Affordability of the Grid of the Future: An Evaluation of Electric Costs, Rates, and Equity Issues Pursuant to P.U. Code Section 913.1*, CPUC, February 2021, at <https://www.cpuc.ca.gov/General.aspx?id=6442467418>.

What's more, concerns about reliability and resiliency have squeezed out a kind of shadow grid – a grey market in energy reliability – that's largely outside the state's climate aspirations or California Public Utility Commission (CPUC) regulatory control, further concentrating energy inequality. There are tens of thousands of backup engines (BUGs) in the state, roughly 90 percent of which are diesel fueled, at the ready in case of a blackout, adding up to many gigawatts of power capacity and associated (localized) polluting air emissions.

The state's diesel BUG infestation is growing rapidly. For example, in December 2018 there were 6,497 generators with 3,810 megawatts (MW) of collective capacity in the Bay Area Air Quality Management District. In 2021 – less than three years later – BUG deployment had reached 8,722 gensets, reflecting 4,840 MW of capacity, a 34 percent jump in the back-up generator fleet.² Similar to families fleeing public schools for independent education, those who can are setting up their own standby grids, often with fossil fuel BUGs.

Local Governments Key to Smooth Transition to a DER/TE Future

As one of the largest asset owners of the built environment, local governments have a unique role in determining the speed in which DER and TE are adopted, frequently serving as the “tip of spear” in advocating for, planning, legislating, and implementing actions that directly or indirectly lead to greater DER and TE deployed. This is particularly the case because of LGs' lead role in ensuring community resiliency and managing land use.

² M.Cubed, *Estimated Population of Backup Generators*, BAAQMD and SCAQMD, forthcoming.

Resiliency is one of four distribution grid services that the Commission identified as core to DER benefits.³ Local governments are key stakeholders in fostering resiliency.⁴ Under the federal Disaster Mitigation Act of 2000 (DMA 2000), along with state legislation, LGs have primary responsibility for developing resilient communities, obligations that overlap with reliability-related energy services provided by IOUs, as regulated by the CPUC. LGs are typically the first to respond to disasters and provide core health and safety services.⁵ All LGs have or are developing plans to bolster resiliency, though for low-capacity jurisdictions measures may be limited to emergency response and coordination protocols with other entities.

DMA 2000 established mitigation planning requirements for states, tribes, and local communities. In California, LGs have adopted Local Hazard Mitigation Programs (LHPS), which identify dangers, assess past disaster occurrences, estimate the probability of future incidences and set goals to reduce or eliminate risks to people and property from natural and human-made threats.⁶ LHMPs strategies include deployment of “soft” (e.g., information sharing procedures) and “hard” assets (e.g., DER; microgrids).

Likewise, under Assembly Bill 897, regional climate networks are creating adaption action plans, which include a description of the impacts a city or region could encounter due to

³ *Decision Addressing Competitive Solicitation Framework and Utility Regulatory Incentive Pilot*, D.16-12-036, December 15, 2015, at 7 to 8.

⁴ The definition of resiliency varies by context. “It includes improving the capacity of people, communities, and local governments to respond to major shocks, as well as cope with on-going stresses and emerging threats.” *Local-Governments-Pocket-Guide-to-Resilience.pdf* (urbanresiliencehub.org)

⁵ See for example, JC Gaillard, Emmanuel A. Maceda, et. al., “Sustainable livelihoods and people’s vulnerability in the face of coastal hazards,” *J Coast Conserv* (2009) 13:119–129 DOI 10.1007/s11852-009-0054-y.

⁶ See for example, *Local Climate Adaptation & Resilience Plans* - Institute for Local Government (ca-ilg.org); *Hazard Mitigation Local Hazard Mitigation Program*.

climate change – “Vulnerability Assessment” – and actions they can take to reduce associated harms; “Adaptation Strategies.”^{7,8}

LGs are also chiefly responsible for determining how the physical configuration of their communities will change, develop and adapt to meet present and future needs. Local planning processes, which tend to engage a wider variety and diversity of stakeholders than participate in CPUC proceedings, certainly on a collective basis, substantially overlaps with IOU activities and CPUC regulation, including as part of decarbonization, reach codes, TE, and DER siting.

LGs’ fundamental nature matches with the localized orientation of DER deployment, as well as the CPUC’s desire to “...maximize locational benefits...of DERs.”⁹ LGs are essential pathways to achieve the Commission’s goals; they should be explicitly included in this proceeding.

A guiding principle to modernize the grid while minimizing ratepayer costs should be to maximize transmission and distribution efficiencies by diminishing the physical distance between where load is generated, and where it is consumed. To achieve such efficiencies requires a transcendental decentralized energy master plan for California. The same urgency should be extended to grid modernization to meet state decarbonization goals as is reflected in the Governor’s Emergency Proclamation of July 30th, which spurred unprecedented CPUC action to remove barriers to acquiring 5,200 MW of summer load. As indicated by by the Governor, the state’s “vision for the electricity system of the future is a clear statement that the clean energy transformation is entirely within our reach.”¹⁰

⁷ What is a Climate Adaptation Plan? | South Bay Cities Council of Governments

⁸ Under Senate Bill 99 Dodd a grant program for local governments to develop energy resilience plans would be created under the California Energy Commission’s jurisdiction.

⁹ OIR, page 3.

¹⁰Newsom, G. California’s Electricity System of the Future. July 2021.

<https://www.gov.ca.gov/wp-content/uploads/2021/07/Electricity-System-of-the-Future-7.30.21.pdf>

Distributed Generation or Decentralized Energy?

‘Distributed generation’ is the term typically used to describe electricity generation that is connected directly to the electricity distribution network, as opposed to being connected to the wider transmission network. However, particularly in the context of community energy systems, the more accurate term is ‘decentralized energy’.¹¹ Decentralized energy is connected to the distribution grid and provides demand flexibility, energy efficiency, customer- or community-sited generation and storage, as well as thermal networks in some cases. Minimizing the physical distance between supply and demand, as well as diversifying the nature and geography of such assets, has the potential to create a robust network of affordable, local, resilient and clean energy that benefits ratepayers, as opposed to shifting investment dividends to shareholders.

The structure and economics of decentralized energy differ substantially from centralized electricity generation. Development of a decentralized energy market will be primarily policy driven. Barriers to encouraging a decentralized energy market, and thereby advancing California’s climate change targets, should be identified in this proceeding, with possible solutions including harnessing local governments’ ability to contribute to summer reliability, grid modernization, demand flexibility, and local hazard mitigation planning, as discussed below.

New Emphasis Needed on “Decentralized Institutional Resources”

This proceeding implicitly recognizes that the IOUs’ monopoly role in providing electricity has ended. Over the past ten years community choice aggregators (CCAs) have

¹¹ London Climate Change Agency. OFGEM Distributed Energy Review. 2007. <https://www.ofgem.gov.uk/sites/default/files/docs/2007/09/lcca-paper---review-of-arrangements-for-de.pdf>

deeply eroded IOUs' share of the wholesale power market. This is evidenced by the fact that while IOU requests for greater distribution revenue has escalated rapidly, PG&E's 2023 GRC request reflects just a one percent rise in generation-related revenue. Likewise, the OIR flatly states that the Commission "...anticipates a high-penetration DER future" and seeks to accommodate that "...while ensuring affordable rates."¹²

The CPUC's primary energy-related role is to regulate the monopoly utilities and direct them towards achieving state goals, with limited ability to direct entities outside this regulatory wrapper. However, there are ample examples of the Commission acting to encourage, create, and manage non-utility entities that provide essential services, paid for through ratepayer dollars. These include third-party energy management programs and Regional Energy Networks (RENs). Likewise, Section 769(b)(2) requires the IOUs to

...propose or identify standard tariffs, contracts, or *other mechanisms* for the deployment of cost-effective distributed resources that satisfy distribution planning objectives.¹³

Public utility code 216 broadly, as well as PUC § 2868, defines 'electric utility' to limit electricity sales to no more than two other entities or persons per generation system. These definitions need to be examined in this proceeding in the context of fostering a decentralized energy system, where many DERs and customer or community-owned generation are active.

For example, the United Kingdom determined that the best way to foster distributed energy¹⁴ was to create a new supply license to operate over public wires distribution networks by modifying existing supply licenses to enable local distributed or decentralized energy providers to generate, distribute and supply electricity directly to consumers over public wires distribution networks without the need to participate in the centralized electricity market. California should

¹² OIR, Page 9.

¹³ Emphasis added.

¹⁴ <https://www.ofgem.gov.uk/ofgem-publications/43685/15939-19306.pdf>

consider investigating the concept of ‘stripped down licensing,’ whereby economic incentives and regulatory oversight can encourage customer adoption of beneficial DERs through a modernized grid.¹⁵

The need to responsibly foster a new era dominated by DER requires an effort to cultivate decentralized institutional resources (DIR) entities that have similar motivations and democracy-based authority as the CPUC to engage in multi-stakeholder planning processes, advance state goals, and offer services that the IOUs cannot affordably provide. Given their embedded responsibilities related to safeguarding resiliency and managing land use, local governments, include RENs and CCAs, are the essential organizations to look to perform these functions. In addition, better coordination with air quality management districts, as part of their BUG permitting role, is needed.

Scope

As previously discussed, how DIRs can best help achieve the CPUC’s goals should be firmly incorporated into this docket, with the following general question added to all tracks:

3. How can this proceeding advance the development of effective, responsive, DIRs as a means to achieve Commission goals for the future grid? Can DIRs be used a tool to reduce duplicative and expensive IOU and DER investments?

Track 2: Improving Planning Processes, Community Engagement, and Data Access

¹⁵ A related issue is calculating costs associated with the centralized electricity supply and benefits of decentralized energy on distribution networks. In the UK, consumers are charged for consumption of centralized electricity in the form of a Distribution Use of System (DUoS) fee; decentralized energy is rewarded with a credit in the form of a negative DUoS fee. The reason for the credit is that decentralized energy avoids, reduces or delays the growth of transmission and sub-transmission networks, avoiding associated energy losses and high capital costs.

As previously discussed, there is significant overlap between LG resiliency plans and existing and emerging IOU and CPUC efforts to invest in and safeguard electricity reliability and resiliency. LG plans often incorporate details on possible energy-related actions – frequently associated with DER deployment – to achieve preferred reliability and resiliency levels, or other responses – such as resiliency and emergency operations centers – if that is not possible. Optimally LG resiliency plan development occurs in close consultation, or at least transparent information sharing, with the IOU in which the investments are occurring, though this is often not the case.¹⁶

Progress needs to be made to better coordinate DER planning, funding, and deployment. In this respect LGSEC recommends that Track 2 be expanded and deepened to include the following:

- How can LGs’ role as lead planner for resiliency efforts be effectively incorporated into IOU resiliency plans? Should the energy-related elements of LG resiliency plans be an explicit input into IOU distribution plans? How can overlapping LG and IOU resiliency planning be synced?
- How can LG’s land use responsibilities and associated influence on EV deployment be effectively incorporated into IOU TE plans beyond present efforts, and contribute to nurturing a decentralized grid?
- How can LG’s decarbonization efforts be cost-effectively coordinated with natural gas displacement?
- How can crosswalks be developed between IOU and LG planning topography, including potential use of smaller geographic units, such as energy sheds^{17,18,19} building to regional

¹⁶ LGs often find it difficult to interact with the IOUs and secure the information necessary to comprehensively plan energy-related investments

¹⁷ DOE. Energysheds” RFI. 2021. <https://eere-exchange.energy.gov/FileContent.aspx?FileID=80b9a335-c7b5-495a-92c3-dd2e50db2c44>

¹⁸ Id. “Energyshed” is “that geographical area in which all power consumed within it is supplied within it.” An “energyshed management system” is whatever tool or process oversees the grid operations within the energyshed’s geographical bounds.

¹⁹ DeRolph, C.R., McManamay, R.A., Morton, A.M. et al. City energysheds and renewable energy in the United States. *Nat Sustain* 2, 412–420 (2019). <https://doi.org/10.1038/s41893-019-0271-9>

plans matched with distribution planning areas? How can stove piped institutional structures, such as bifurcations between emergency response and long-term resiliency planning teams, be remediated at LGs and IOUs, to avoid duplicative efforts, information and action gaps, as well as create synthesized planning approaches?

- How can transparent communication and data sharing protocols, coordination activities, mitigation measure development processes, and funding channels be developed in ways that result in a tractable platform for use across local, IOU, and state energy and environmental resiliency-related decision-making systems? In addition to machine readable outage, reliability, and resiliency data, what essential information should be included in such a platform?
- How can the CPUC leverage LGs, and DIRs in general, to advance its equity and environmental justice goals? Should the Commission support funding for LG “Chief Resiliency Officers,” to cost-effectively bolster capacity to effectively improve DER planning and deployment, especially in vulnerable communities? How else can LG capacity be enhanced as a means to advance state energy goals?
- Should an information resource similar to the Database for Energy Efficient Resources be developed for DERs – Database for Decentralized Energy Resources – as a way to create an analytically robust platform from which to make distribution planning, funding, tariffs, and solicitation decisions, including non-wires and non-energy interventions that address resiliency challenges (e.g., resiliency centers)?
- Should existing or new non-utility entities be relied upon to plan and deploy DERs to meet Commission goals, particularly related to equity and resiliency, such as RENs and/or CCAs?
- How can CPUC efforts directed at fielding environmentally benign DERs be better coordinated and communicated with air quality management districts to encourage deployment of BUGs that contribute to the public good?

Finally, technical advisory committees (TAC) should be established to help guide Commission staff, consultants, and IOUs for all track studies and workshops, as a means to ensure that these elements proceed in ways that reflect key stakeholders’ knowledge and insights related to substant, timing, and communication protocols. TAC participation should be reimbursed, and include representation from LGs, Tribes, and community-based organizations.

Respectfully submitted,

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