Articles
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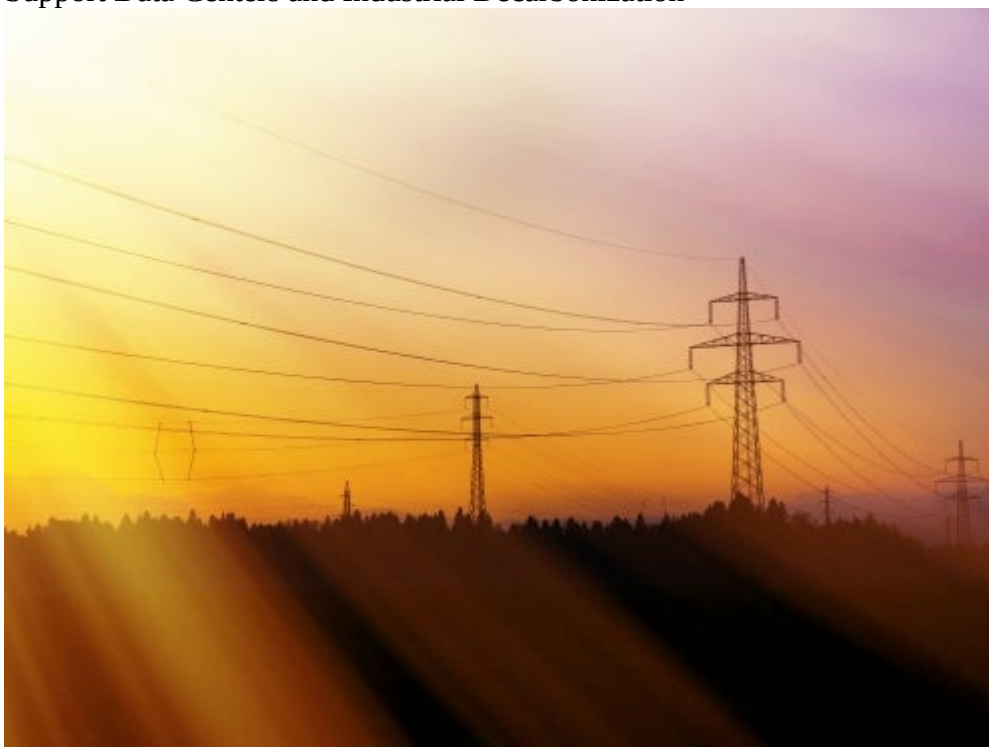
CPUC Closes Years-Long Microgrids Proceeding, Limiting Off-Grid Distributed Energy Resources That Could Support Data Centers and Industrial Decarbonization



The California Public Utilities Commission (CPUC) issued its *Decision Adopting Implementation Rules for Multi-Property Microgrid Tariffs and Other Matters* on November 18, 2024,[1] closing the final chapter of a years-long rulemaking[2] (the Microgrids Proceeding) that many say underdelivered on California's legislative and policy mandates to commercialize microgrids.

High demand for microgrids in California spans business sectors and communities. Residential and commercial developers in urban and suburban settings view microgrids as a solution to wildfire-related power interruptions and long interconnection timelines necessary to support new housing and commercial loads. Commercializing microgrids would also be consistent with state and local green development and net-zero energy goals.

Decarbonizing California's industrial sector, often sited in rural or underserved communities and historically reliant upon fossil fuel combustion, would also benefit from increasing utilization of distributed energy resources. As the state's decarbonization plan explicitly recognizes, "microgrids powered by renewable resources and with battery storage are emerging as a key enabler of electrification and decarbonization at industrial facilities."[3]

Despite this growing demand, CPUC concluded the Microgrids Proceeding without materially advancing the deployment of microgrids in California at scale, and through the proceeding, CPUC entrenched an interpretation of its jurisdiction that may have unintended consequences for industrial decarbonization and data center projects that would rely on off-grid power.

CPUC's Response to Senate Bill 1339 Commercialization Mandate

A "microgrid" refers to an interconnected system of energy loads and supply—including distributed energy resources (DERs), energy storage, demand response tools, or other management, forecasting, and analytical

tools—designed to meet customer energy needs within a clearly defined boundary. Microgrids' versatility allow them to deliver energy to customers while connected to, disconnected from, or running in parallel with the traditional electrical grid.

California enacted Senate Bill 1339 in 2018, directing the CPUC to "facilitate the commercialization of microgrids for distribution customers of large electrical corporations."[4] The California Legislature specifically directed CPUC to develop new standards, guidelines, protocols, rates, and tariffs to reduce barriers to microgrid deployment.

In 2019, the CPUC opened a Microgrids Proceeding, via Order Instituting Rulemaking 19-09-009, with the purpose to "begin crafting a policy framework surrounding the commercialization of microgrids."[5] CPUC divided the proceeding into five separate "tracks," each dealing with distinct issues. CPUC named as respondents in the proceeding California's three major investor-owned utilities (IOUs)—Pacific Gas & Electric Company (PG&E), Southern California Edison (SCE), and San Diego Gas and Electric (SDG&E). California's IOUs have long sought to ensure that microgrid commercialization does not come at the expense of safety, rate protections for non-microgrid utility customers, or the traditional utility regulatory model.

Outcome of the Microgrids Proceeding

CPUC's decisions in the Microgrids Proceeding did not ultimately take significant steps forward to advance the deployment of microgrids in California, but instead framed the proceeding as principally about enabling a limited class of IOU-owned, grid-connected, and resiliency-focused projects:

- Track 1 concluded with CPUC's *Decision Adopting Short-Term Actions to Accelerate Microgrid Deployment and Related Resiliency Solutions*.[6] The Track 1 Decision adopted solutions to accelerate grid interconnection for qualifying resiliency-oriented projects, required updates to net energy metering tariffs to maximize "social resiliency" benefits, and promoted collaboration between the IOUs and tribal governments. These actions reflected CPUC's goal to support resiliency planning in areas prone to wildfires and public safety power shutoffs ahead of the 2020 wildfire season.
- Track 2 resulted in CPUC's *Decision Adopting Rates, Tariffs, and Rules Facilitating the Commercialization of Microgrids Pursuant to Senate Bill 1339 and Resiliency Strategies*.[7] Specifically, the Track 2 Decision directed SCE to revise its Rule 2 to allow grid-connected "special facilities" microgrids, directed the IOUs to revise their Rules 18/19 to allow up to 10 qualifying grid-connected microgrids to serve "critical customers" (such as hospitals and fire stations), and ordered the IOUs to form a microgrid tariff, a microgrid incentive program, and "pathways" for low-cost, reliable electric isolation methods. The Track 2 Decision rejected more ambitious proposals from microgrid advocates who sought reduction of barriers for projects beyond just resiliency-oriented solutions for critical facilities.
- Track 3 concluded with CPUC's *Decision Adopting a Suspension of the Capacity Reservation Component of the Standby Charge for Eligible Microgrid Distributed Technologies*.[8] Standby service charges are paid by grid-connected customers that largely generate their own electricity but where the IOU supplies power on a standby or backup basis. The Track 3 Decision suspended a "capacity reservation component" of such standby charges only for some grid-connected microgrids meeting California Air Resources Board air pollution standards for the generation source.
- CPUC divided Track 4 into two parts, which concluded with CPUC's *Decision Adopting Microgrid and Resiliency Solutions to Enhance Summer 2022 and Summer 2023 Reliability*[9] and its later *Decision Adopting Implementation Rules for the Microgrid Incentive Program*.[10] The Track 4, Part 1 Decision adopted enhanced reliability requirements for PG&E and SDG&E in response to Governor Gavin Newsom's July 2021 Proclamation of a State of Emergency in response to climate change's accelerating impacts in California. The Track 4, Part 2 Decision established implementation rules for the Microgrid Incentive Program (MIP) developed by PG&E, SDG&E, and SCE that CPUC previously directed the

IOUs to form in the Track 2 Decision. The IOUs' MIP prioritizes microgrid placement in disadvantaged communities vulnerable to grid outages.
- Track 5 concluded with the recent *Decision Adopting Implementation Rules for Multi-Property Microgrid Tariffs and Other Matters*.[11] The Track 5 Decision adopts the IOUs' proposed Multi-Property Microgrid Tariff (MPMT), which was modeled off PG&E's Community Microgrid Enablement Tariff. Each IOU's MPMT will apply to microgrids interconnected and operated in parallel with the IOU's distribution system where the microgrid serves one or more retail customers across two or more properties.

Many microgrid advocates had hoped the CPUC would be more ambitious in allowing customers to develop their own DERs and private microgrids in remote or distribution-constrained parts of California. By interpreting SB 1339 as fundamentally concerned with resiliency rather than microgrid commercialization at scale, the CPUC reinforced that private microgrid developers face a challenging regulatory environment.

A New Regulatory Barrier: A Strengthened "Over-the-Fence" Rule

Of the regulatory barriers facing private microgrid development in California, one that stands out prominently is CPUC's strengthening of the "Over-the-Fence" Rule.

State statute and over a century of caselaw delineate between "public" utility service that is subject to CPUC jurisdiction and "private" activity that is outside its reach. Known as the "public dedication doctrine," this doctrine was initially developed through court decisions[12] and then ultimately codified. The Public Utilities Code now reflects the public dedication concept directly in the definition of a "public utility," so that an electric, water, or heat corporation is subject to CPUC regulation only "*where the service is performed for, or the commodity is delivered to, the public or a portion thereof*."[13]

In addition to the public dedication doctrine, California law provides explicit statutory exemptions from CPUC regulation for certain use cases involving electric service that is fundamentally private in nature. Examples of statutory exemptions include service by a landlord to a commercial or residential tenant,[14] self-supply (such as residential rooftop solar),[15] and deployment of some traditional cogeneration facilities (covering owners combined heat and power (CHP) plans, digester gas plants, and biogas plants).[16] One such exemption, popularly known as the "Over-the-Fence Rule" applies to DERs that supply electricity to "not more than two other corporations or persons solely for use on the real property on which the electricity is generated or on real property immediately adjacent thereto, unless there is an intervening public street constituting the boundary between the real property on which the electricity is generated and the immediately adjacent property."[17]

Some intervenors in the Microgrids Proceeding tried to persuade CPUC to expand the Over-the-Fence exemption to allow grid-tied, neighborhood-scale microgrids capable of serving the electric demand of an entire community that comprises dozens or even hundreds of single-family homes. Proponents of these kinds of large-scale single-family community microgrids wanted to see the Over-the-Fence exemption expanded, because without an exemption, their proposals would fall within CPUC's jurisdiction under the public dedication doctrine.

The CPUC not only defended the Over-the-Fence Rule but took it one step further. According to CPUC, the Over-the-Fence Rule "requires any entity that wishes to sell energy to more than two contiguous parcels or across the street to become a regulated electrical corporation."[18] CPUC explicitly rejected what it characterized as "the establishment of private utilities to sell power under contractual arrangements to nearby third-parties without any Commission oversight and without regard to the existing regulatory and legislative requirements that are reflected in Section 218."[19] The CPUC stated that allowing private entities "to distribute electricity to more than two contiguous parcels or across a public street provided they are serving only certain identified customers (*i.e.*, the 'public dedication doctrine') [would] give unregulated entities free reign to serve

entire cities or regions without public oversight."[20]

Effectively, the Microgrids Proceeding revealed that CPUC views the Over-the-Fence Rule as not just a statutory exemption (*i.e.*, a *sufficient* condition to avoid regulation), but also as a *necessary* condition for an entity to avoid regulation as a utility. CPUC asserted that a private entity distributing electricity to more than two contiguous parcels or across a public street is presumed conclusively to have dedicated its infrastructure to public use. Of course, a project using DERs to provide power service that is fundamentally private in nature remains outside of CPUC's jurisdiction by virtue of Public Utilities Code section 216. But if faced with a legal challenge, courts will give significant deference to CPUC's interpretation of the Over-the-Fence Rule reflected in its decisions in the Microgrids Proceeding.[21]

An Unintended Chilling Effect for Off-Grid DERs that Enable Data Centers and Industrial Decarbonization

One important consequence of the Microgrids Proceeding may be to chill development of off-grid DERs to meet California's growing demand for data centers and industrial decarbonization.

Emerging "data center as a service" providers proposing to pair off-grid DERs with data center applications will need to be mindful of the Over-the-Fence Rule. Data center developers that plan to contract with providers of off-grid fuel sources such as fuel cells, liquefied natural gas, (LNG), or hydrogen may be constrained to single or two-parcel layouts for data center projects. While that may present no issue for smaller projects, it could be restrictive for larger-scale data centers proposed to be sited in urban and suburban settings where large-sized parcels are scarce or combining parcels presents local challenges.

Off-grid power systems have also been gaining traction in the industrial sector to overcome limitations of grid-tied power such as capacity constraints, interconnection delays, and transmission infrastructure limitations. Portions of the industrial sector have long relied upon off-grid power in the form of diesel generators and cogeneration plants, but demand for renewable off-grid power supplied by DERs is increasing to enable industrial decarbonization. While in some cases it may be feasible and economically efficient for industrial projects to be grid-tied, off-grid DERs will be preferable to other proponents of industrial projects, who may now feel that their options are needlessly constrained.

Missed Opportunity To Support Grid-Tied Residential Projects

Developers of grid-tied microgrids that would support needed housing development in California also may view the Microgrids Proceeding as a missed opportunity. Except in unusual circumstances where housing projects are off-grid or fit within the narrow confines of the Over-the-Fence Rule, housing developers incorporating microgrids into their projects may have to endure long interconnection queues and participate in IOU-run MPMTs. In this respect, microgrid advocates may feel that the Microgrids Proceeding did little to advance commercialization or to support new housing developments consistent with state and local green development goals.

Conclusion

The Microgrids Proceeding concluded without material steps forward to advance the deployment of microgrids in California. Whereas SB 1339 envisioned a proceeding to facilitate microgrid commercialization generally, the CPUC delivered a series of decisions that interpreted SB 1339 as fundamentally concerned with resiliency and critical infrastructure rather than commercialization of microgrids at scale.

Demand for DERs across business sectors is not slowing down. Proponents of projects that include DERs will need to be mindful of the constraints revealed through this proceeding. Companies must be particularly mindful of CPUC's strengthening of the Over-the-Fence rule and its weakening of traditional public dedication principles. Proponents of multiproperty residential microgrids should track the implementation of the IOUs' MPMTs and prepare to wait in long interconnection queues before their grid-tied projects may be energized. Meanwhile, developers of private off-grid projects in the industrial decarbonization and data center space will need to be careful with project designs that would have the potential to test the limits of CPUC's regulatory authority.

Endnotes

[1] D. 24-11-004 (Nov. 7, 2024).

[2] R.19-09-009.

[3] CARB Scoping Plan, p. 209.

[4] P.U.C. § 8371.

[5] R. 19-09-009 (Sept. 19, 2019).

[6] D. 20-06-017 (Jun. 11, 2020).

[7] D. 21-01-018 (Jan. 14, 2021).

[8] D. 21-07-011 (Jul. 16, 2021).

[9] D. 21-12-004 (Dec. 6, 2021).

[10] D. 23-04-034 (Apr. 6, 2023).

[11] D. 24-11-004 (Nov. 7, 2024).

[12] *See, e.g., Independent Energy Producers Ass'n., Inc. v. State Bd. of Equalization* (2004) 125 Cal. App. 4th 425; *Story v. Richardson* (1921) 198 P. 1057 (holding that a landlord engaged in distribution of electricity to tenants of his own building and an adjoining building was "not engaged in the sale and distribution of electricity to the public at large or any portion thereof as such."); *Bressler v. Bayshore Properties, Inc.* (1977) 81 CPUC 746, 748 (holding, in a commercial context, that owners of a regional shopping center who resold electricity to their tenants had not dedicated their property to public use).

[13] PUC 216(a)(1).

[14] *See* P.U.C. § 218(b)(1) (exemption for "the use of [a generator's] tenants"), § 218(e) (independent solar energy producer exemption).

[15] *See* P.U.C. § 218(b)(1) (exemption for generator's "own use")

[16] PUC § 218(c) (landfill gas exemption); § 218(d) (digester gas exemption); § 216(d) (exemption for owners of cogeneration facilities).

[17] *See* P.U.C. §§ 216, 218 (defining "public utility" and "electrical corporation" respectively).

[18] Track 5 Decision, *supra*, at p. 99.

[19] Track 2 Decision, *supra*, at p. 32.

[20] *Id.* at p. 33.

[21] *Ponderosa Telephone Co. v. California Public Utilities Comm'n* (2019) 36 Cal.App.5th 999, 1013 ("To the extent a challenged PUC decision involves the interpretation or application of the Public Utilities Code or regulations regarding a matter within the agency's special expertise, reviewing courts extend considerable deference to the PUC's conclusions, and ordinarily such a decision will not be disturbed unless it fails to bear a reasonable relation to statutory purposes and language").

Authors

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