

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Order Instituting Rulemaking to Enhance the Role of
Demand Response in Meeting the State's Resource
Planning Needs and Operational Requirements.

Rulemaking 13-09-011
(Filed September 19, 2013)

**SIERRA CLUB RESPONSE TO ADMINISTRATIVE LAW JUDGE'S RULING
REQUESTING RESPONSES TO ADDITIONAL QUESTIONS IN REGARD TO
2018 AND BEYOND DEMAND RESPONSE PROGRAMS**

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Sierra Club submits the following comments pursuant to the Administrative Law Judge’s *Ruling Requesting Responses to Additional Questions in Regard to 2018 and Beyond Demand Response Programs* issued on May 20, 2016. Sierra Club only provides comments on Question 6 of Category 2 at this time, but reserves the right to reply to comments addressing other questions. Question 6 asks parties to “[e]xplain and justify the most important program design changes the Commission should require for the 2018 demand response portfolio,” including an explanation of how the Commission should make this change.

For the past year in this docket, Sierra Club has urged the Commission to take definitive action to enforce its 13-year-old statements that demand response cannot be provided by fossil-fueled generators. The conclusions of LBNL’s Demand Response Potential Study (“Potential Study”) buttress this argument, and identify substantial potential for carbon-free demand response. Starting with the 2018 portfolio, Sierra Club requests the Commission formalize its prohibition on the use of fossil-fueled resources in demand response programs, and adopt the back-up generation monitoring and enforcement provisions proposed by Energy Division in its September 2015 Staff Proposal.¹

The Potential Study presents thorough and thoughtful analysis demonstrating that demand response can play a significant role in California’s transition to a 100% carbon-free

¹ Energy Division Staff Proposal, *Demand Response and Back Up Generation* (Sept. 21, 2015), Appendix A to *Ruling Inviting Comments on Staff Proposal Regarding the Use of Fossil-Fueled Back-Up Generation in Demand Response Programs* (Sept. 29, 2015) (“Staff Proposal”).

power system. A strong commitment by the Commission to demand response programs can create a virtuous circle, where these initiatives enhance the financial incentive to electrify natural gas-fired appliances and other end uses, incentivizing the growth of flexible electric load that in turn creates more demand response potential. However, this future will be frustrated unless and until the Commission finally takes action to prohibit the use of fossil-fueled backup engines in demand response programs through a transparent and enforceable compliance regime.

A. The Potential Study removes any doubt that backup generation is unnecessary to the widespread deployment of demand response.

For well over a decade, the Commission has stated that “the use of fossil-fueled [back-up generation, or] BUGs does not constitute Demand Response.”² It is well-established that backup generation is inconsistent with the purpose of demand response and damages human health and the environment. Yet, in response to past Sierra Club comments urging a definitive and enforceable prohibition on fossil-fueled backup generation, some parties have argued that demand response would fail absent participation by these prohibited resources.³ While a smaller but legitimate demand response program is far preferable to a larger one plagued by fossil-fired resources, the Potential Study credibly establishes that backup generation is unnecessary to the widespread deployment of demand response. Despite not including the “known contribution of unknown scale from backup generation” in its resource projections, LBNL forecasts mid-case demand response potential capacity of almost six gigawatts (“GW”) in 2025, priced under \$200 per kilowatt hour.⁴ If this amount of demand response were deployed, it would serve 15% of the

² A. 14-11-012, *Alternate Proposed Decision of Commissioner Florio* (Oct. 6, 2015), p. 15. The Commission has defined demand response as excluding fossil resources since 2003. See, e.g. D.03-06-032, *Interim Opinion in Phase 1 Addressing Demand Response Goals and Adopting Tariffs and Programs for Large Customers* (June 5, 2003), Attachment A at p. 2 (holding that “the Agencies’ definition of demand response does not include or encourage switching to the use of fossil fueled emergency backup generation.”); D.06-11-049, *Order Adopting Changes to Utility Demand Response Programs* (Dec. 1, 2006), p. 58; D.09-08-027, *Decision Adopting Demand Response Activities and Budgets for 2009 through 2011* (Aug. 24, 2009), pp. 164-166; D.11-10-003, *Decision Further Refining the Resource Adequacy Program Regarding Demand Response Resources* (October 10, 2011) p. 26; D.14-12-024, *Decision Resolving Several Phase Two Issues and Addressing the Motion for Adoption of Settlement Agreement on Phase Three Issues* (Dec, 9, 2014) p. 53-55, Table 5.

³ See, e.g., Opening Brief of the Direct Access Customer Coalition and Alliance for Retail Energy Markets (Aug. 25, 2014), p. 18 (citing Exhibit PGE-01, Witness Tougas, pp. 7-4 – 7-5, stating that limiting fossil-fueled back-up generators from demand response “could risk losing a significant amount of DR capacity”).

⁴ Potential Study, p. 68, 64.

expected 2025 net peak load.⁵ There is no legitimate resource adequacy justification to let backup generation continue to pollute demand response.

B. The Staff Proposal outlines a needed and appropriately stringent compliance regime.

In order to put a verifiable and enforceable prohibition on fossil generators in place for the 2018 demand response portfolio and beyond, the Commission should adopt the monitoring and enforcement protocol outlined by the Energy Division in its September 2015 Staff Proposal.⁶ Energy Division Staff suggests a bifurcated monitoring and enforcement regime that would require owners of prohibited fossil resources to either install monitoring equipment on their generator capable of demonstrating the engine was not used for demand response, or, in the alternative, to accept a default adjustment equal to the size of the prohibited resource.⁷ To the extent the Commission finds it necessary to include owners of prohibited resources in demand response programs, the Staff Proposal should be adopted in full, and any effort to weaken the Proposal flatly rejected.

The Staff Proposal implicitly recognizes that monitoring is the foundation of any robust and transparent regulatory regime. The Commission’s demand response programs should be no different. As set forth by EPA, “[a] key factor in protecting the environment is assuring compliance with environmental regulations through effective monitoring.”⁸ Mere attestation that fossil resources are not used to create the impression of load drops, as is currently the rule in the Demand Response Auction Mechanism, is insufficient. Many older fossil generators only have odometer-style meters. As a result, there is no way to verify whether the engine was on during a demand response event. These older generators are often the most polluting, making it imperative that California ratepayers can be confident they are not paying a large premium to subsidize dirty diesel fuel. Without some kind of technology that can collect data on the date and time of the generator’s use, there is no way to verify compliance. With no way to verify compliance, transparency is nonexistent and enforcement is not possible.

⁵ *Id.*, p. 7.

⁶ *See* Staff Proposal, p. 8.

⁷ Staff Proposal, p. 8.

⁸ U.S. EPA, Region 9 webpage, “Introduction: Environmental Enforcement and Compliance” (updated April 27, 2016). *See also* U.S. EPA webpage, “Compliance Monitoring Programs” (updated Jan. 5, 2016) (“Compliance monitoring is a key component of any effective environmental compliance and enforcement program.”).

C. The Staff Proposal will not impose an undue burden on demand response participants.

The Potential Study demonstrates that only a small portion of overall demand response potential would be impacted by adoption of the Staff Proposal. The vast majority of the projected demand response resources – over 80% -- come from resources and customers that would be unaffected. About 2 GW of the 6 GW total demand response potential is projected to come from load modifications prompted by time of use rates, which would be outside the purview of traditional demand response programs.⁹ LBNL forecasts that an additional 1.5 GW will be available from residential end uses, including residential heating and cooling and electric vehicle charging.¹⁰ Residential customers are exempt from the Staff Proposal’s proposed monitoring provisions.¹¹ Automated demand response from commercial heating, cooling and lighting, where the participant is presumably unable to manually over-ride the curtailment signal with an on-site generator, adds an additional 1.5 GW to the potential estimates.¹² The only demand response programs impacted by the Staff Proposal would be those that relied on manually adjusting industrial processes, estimated to be about 1 GW.¹³ Within those programs, only the subset of participants who own prohibited resources will be impacted.

Even for the small subset of potential demand response resources that are covered by the Staff Proposal, the proposed monitoring requirements are not onerous or exceptional. A similar metering requirement is currently in place in the SGIP program. As a condition of receiving SGIP incentives, participating customers must install metering and monitoring equipment at their own expense.¹⁴ The metering requirement in SGIP is meant to “ensure ratepayer-funded

⁹ Potential Study, p. 64. Time of use price impacts add up to 1.76 GW of the 5.8 GW total.

¹⁰ *Id.*

¹¹ Staff Proposal, p. 8. Under the Staff Proposal, any residential customers with prohibited resources could attest the generators were not used for demand response. This exemption was considered appropriate because the number of residential customers who own a prohibited resource is likely small, and because most residential demand response programs rely on automated load controls that could not be over-riden by customer actions.

¹² Potential Study, p. 64. As recommended by ORA at the January 13, 2016 workshop on the staff proposal, demand response participants who could demonstrate the prohibited resource was wired so as to be unavailable to provide demand response could be exempted from metering requirements.

¹³ *Id.*

¹⁴ 2015 Self-Generation Incentive Program Handbook (Jan. 2015), pp.60-64. Available at http://www.cpuc.ca.gov/NR/rdonlyres/9E029D5B-3144-4FD4-925E-3B95FE9CAF3C/0/2015SGIPHandbookV1_Final.pdf (“SGIP Handbook”). See also D. 11-09-015, *Decision Modifying the Self-Generation Incentive Program and Implementing Senate Bill 412* (Sept. 6, 2011), p. 56.

incentives result in expected levels of self-generation.”¹⁵ The same logic applies to demand response: Metering will ensure ratepayer-funded incentives result in expected load reductions. Complicated metering is not required. Inexpensive data loggers are available that can record generator stop and start times, enabling program administrators to verify that the generator was not used during a demand response event. Some newer generators may already have this capability, and for older equipment simple data loggers are available for under \$100.¹⁶ By contrast, typical revenues from participating in PG&E’s Base Interruptible Program are *three orders of magnitude higher*, averaging \$120,000 per customer in 2015.¹⁷ Accordingly, arguments that the reasonable monitoring requirements laid out in the Staff Proposal would impermissibly hamper the supply of demand response in California are without merit.

With California moving to aggressively decarbonize its energy system and expanding its commitment to preferred resources, the Commission must ensure that the future of demand response is in line with these overall values and goals. It is long past time for the Commission to make it explicit that the shadow practice of using fossil-fired engines to respond to demand response calls will be monitored and will no longer be tolerated.

Respectfully,

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¹⁵ SGIP Handbook, p. 60.

¹⁶ See, e.g., DENT Instruments MAG Logger, <http://www.dentinstruments.com/smart-logger-meters-energy-metering>. This data logger is available at many online outlets for \$80. See, e.g., <https://www.microdaq.com/dent-instruments-mag-logger.php>

¹⁷ PG&E April 2016 Interruptible Load and Demand Response Programs Report Tab 3, Program MW, and Tab 9, Incentives 2015-2016 (May 23, 2016) (showing total incentives of \$26 million in 2015, shared among 218 service accounts).