

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

Order Instituting Rulemaking Regarding
Emergency Disaster Relief Program.

Rulemaking 18-03-011
(Filed March 22, 2018)

**OPENING COMMENTS OF THE NATIONAL FUEL CELL RESEARCH
CENTER ON THE PROPOSED DECISION ADOPTING WIRELESS
PROVIDER RESILIENCY STRATEGIES**

July 1, 2020

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I. Introduction

In accordance with Rule 14.3 of the Rules of Practice and Procedure of the California Public Utilities Commission (Commission), the National Fuel Cell Research Center (NFCRC) respectfully submits opening comments in response to the Administrative Law Judge's Proposed Decision (PD) Adopting Wireless Provider Resiliency Strategies, issued June 11, 2020.

The NFCRC facilitates and accelerates the development and deployment of fuel cell technology and systems; promotes strategic alliances to address the market challenges associated with the installation and integration of fuel cell systems; and educates and develops resources for the power and energy storage sectors. The NFCRC was established in 1998 at the University of California, Irvine by the U.S. Department of Energy and the California Energy Commission in

order to develop advanced sources of power generation, transportation and fuels and has overseen and reviewed thousands of commercial fuel cell applications.

II. OPENING COMMENTS

The NFCRC submits these comments on the Proposed Decision to underscore that fuel cell systems are commercially available and are being widely used by telecommunication and cable companies for extended runtime backup power.

In sum:

- **Fuel cell systems are being used today for backup and primary power at wireless and wireline sites and can readily be designed in and installed at many critical wireless sites in Tier 2 and Tier 3 high fire threat districts this year and in 2021.**
- **Fuel cell systems can meet 72-hour backup power requirements with clean generation and help ensure that a minimum level of service is available for facilities deemed critical and subject to the 72-hour backup power requirements.**
- **Fuel cell systems meet the requirements of the proposed Resiliency Plans to include clean generation in their short- and mid-term plans for transition.**

A. 72-hour Backup Power Requirements (Section 6.4)

The Proposed Decision gives wireless providers twelve months to implement the requirement to ensure that customers in Tier 2 and Tier 3 High Fire Threat Districts have access to 72-hour backup power during the upcoming wildfire season and de-energization events. Fuel cell systems can easily provide 72-hours of backup power for a subset of macro-sites using refillable gaseous hydrogen storage on site.

B. Communications Resiliency Plans (Section 6.5.2)

The NFCRC supports the requirement for the telecommunication providers to submit Resiliency Plans. As reflected in the NFCRC comments on the Assigned Commissioner’s Proposal, fuel cell systems are available and being used today as clean backup power generation across North America. With significant experience, the industry is able to work closely with the communications providers to project quantities needed, which will facilitate the fast pace of site design, system manufacture, and installation of large volumes of fuel cell systems as early as 2021.

The proposed Resiliency Plans call for “detailed clean generation and diesel generation near and long-term approaches, consistent with Section 6.7.2 of this Decision.”¹ The NFCRC proposes that the fuel cell market developers could work directly with the telecommunications providers to develop the referred to cooperative agreements to deploy clean generation solutions that meet the providers’ requirements for scalability. The direct hydrogen backup power systems emit no greenhouse gases, nor local criteria air pollutants, further facilitating the use of fuel cells as clean generation in the program. All of the commercially available fuel cell systems already meet California Air Resources Board Distributed Generation standards; these zero emission systems are exempt from this standard with the option to voluntarily certify.

Because the telecommunications providers have used fuel cell systems across North America both as primary and backup clean power generation, they should be able to illustrate the lessons learned from use of these systems, per the Commission’s requirement to “discuss lessons learned from past use of both clean and fossil fuel

¹ Proposed Decision at 91.

generation as a widespread backup power resiliency strategy”² in the plan. Also, because the telecommunications providers have experience in deploying fuel cell systems, this should additionally inform their short- and mid-term plans to transition to clean generation for backup power resiliency.

The effectiveness of the plan could be furthered by the Commission directly stating additional parameters for the inclusion in the Resiliency Plans of clean energy primary generation that also transitions immediately to provide backup power when the grid goes down. A first parameter would be to expedite the interconnection process; with a low power demand at these facilities this could simply be notice of a telecommunications provider to proceed on a given meter. Also, because the clean energy generation system must cover the full operation of the facility, the system should have a cost beneficial means of exporting to the grid during times of over-production, along with relief from demand charges when the systems are under maintenance.

C. Resiliency Requirements for Other Providers (Section 7)

The Commission through the Proposed Decision “promulgates resiliency requirements for the wireless providers only. In a forthcoming decision, we will consider promulgating resiliency requirements for other providers.”³ The NFCRC emphasizes the importance of addressing the broader requirements in a similar fashion to include clean generation in plans in order to reduce GHG emission impacts and avoid severe negative impacts to local air quality - and associated public health issues correlated to diesel emissions - through the unbridled use of diesel generators. The Commission should more

² Proposed Decision at 100.

³ Proposed Decision at 108.

clearly assert that they will promulgate resiliency requirements for other providers, rather than simply “consider” promulgating these requirements.

III. Conclusion

The NFCRC appreciates the opportunity to submit comments to support the requirements of the Commission and plans of the telecommunication providers to use increasing amounts of clean power generation for backup power in California. The NFCRC emphasizes that planning in the coming months could allow thousands of sites to install backup and primary power fuel cell systems for clean power generation in 2021.

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Respectfully submitted,

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