



December 8, 2014

California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Re: Docket No. 14-IEP-1 Comments of FuelCell Energy

Dear Commissioners:

FuelCell Energy, Inc. ("FCE") appreciates this opportunity to comment on a clarification question related to the Energy Commission's ongoing collaborative assessment of the electricity infrastructure needs in Southern California and the electricity demand forecast, as part of its ongoing commitment to process alignment with the California Public Utilities Commission ("CPUC") and the California Independent System Operator. The Commission held a workshop on issues, including the above, on November 24, 2014, and provided parties an opportunity to submit comments by December 8, 2014.

FCE is a leading integrated fuel cell company that designs, manufactures, sells, installs, operates and services ultra-clean, highly efficient stationary fuel cell power plants for distributed power generation. FCE plants are operating in more than 50 locations in nine countries and have generated more than 2.9 billion kilowatt hours of electricity. The growing installed base and backlog exceeds 300 MW. In California, the company has 19 operating facilities and an experienced, full-time sales and support team throughout the state.

As the Commission works toward completion of its Draft 2014 Integrated Energy Policy Report Update ("Draft Update"), FCE encourages the Commission to further clarify the place of both renewable and non-renewable stationary fuel cells as "preferred resources" in the state's energy planning.

In the Chapter 9 Update on Electricity Infrastructure in Southern California, the Commission describes the interagency assessment and collaboration processes initiated to address the retirement of San Onofre. As part of this process, the agencies are tracking all types of resource development, including preferred resources, which are defined as including "energy efficiency, demand response, fuel cells, renewable distributed generation, combined heat and power, and so forth." (Draft Update p. 193) The Commission's statement that fuel cells, regardless of fuel source, fall within the Commission's definition of "preferred resources" is important because, as noted, the agencies are working together to "develop a mixture of preferred resources, conventional

generating capacity additions and transmission system upgrades.” (Draft Update p. 191) In order to facilitate this collaboration, there should be an agreement on what is and isn’t a “preferred resource.”

Fuel cells, a clean distributed generation technology that can run on both renewable and non-renewable fuel, and which can also be used in combined heat and power applications, fit into more than one category of “preferred resources,” which can lead to a lack of clarity, particularly if definitions shift between agencies and proceedings. We ask that the Commission expand on the statement above and/or clarify elsewhere in the Update Report that stationary fuel cells, regardless of fuel source, are considered a “preferred resource.”

Such clarification would be consistent with the Energy Action Plan II, which describes “renewable sources of power and distributed generation, such as combined heat and power applications” as falling after energy efficiency and demand response in the loading order.¹ It would also be consistent with the CPUC’s decision in the CPUC Long-Term Procurement Proceeding, which defines the term “preferred resources” as including “energy efficiency, demand response, and distributed generation including combined heat and power.”² And it would be consistent with utility procurement plans, which refer to the loading order and identify energy efficiency, demand response, distributed generation and renewable energy as “preferred resources.”³

Power from fuel cells provide several superior environmental, development and operational features:

- Efficient – fuel cells generate electricity at a distribution level with an unparalleled electrical power generation efficiency.
- Ultra-clean – fuel cells emit CO₂ at levels below the CA average grid with near-zero emissions of NO_x, SO_x, and PM₁₀. The plants will contribute to greenhouse gas reduction goals under the California Air Resources Board (“CARB”) 2020 Scoping Plan.
- Low Permitting and Community Risk – the South Coast Air Quality Management District exempts fuel cells from a written air permit, including those fueled by natural gas. This allows for the installation of significant amounts of responsive power quickly and without potential community opposition of conventional natural gas plants.

¹ Energy Action Plan II, Implementation Roadmap for Energy Policies, September 21, 2005, p.2. See also 2008 Energy Action Plan Update pp. 15-16

² D.13-02-015 p. 3.

³ See, e.g. SCE Track 1 Procurement Plan p.2.

- Exempt from Cap-and-Trade – fuel cell plants, including those powered by natural gas, are included in Section 95852.2 of CARB’s greenhouse gas regulations, which contain fuel source categories that are exempt from compliance obligations.
- Voltage Support – fuel cells can provide reactive power and offer a real and reactive alternative to synchronous condensers.
- Quiet - fuel cells have a significantly reduced acoustic profile compared to other generation technologies, making them suitable for almost any location.
- Reliable – fuel cell power plants are meeting or exceeding production and capacity commitments to utility customers and investors.
- Controllable – fuel cells can be set to vary output over a scheduled period of time, be disconnected island and return to full power, and can operate at low capacity factor without degradation in heat rate.
- Fuel Versatile – fuel cells can operate directly on natural gas, onsite biogas, or directed biogas. The plants are “renewable ready” and can offer the only form of predictable capacity with zero greenhouse gas impact and near zero criteria pollutant emissions.

FCE appreciates the Commission’s consideration of this request for clarification in the discussion of “preferred resources” in the Draft Update. Although this is a not a matter of substantive policymaking, it will help clarify the important place that both renewable and non-renewable fuel cells play in the effort to deploy additional preferred resources in Southern California and elsewhere.

Sincerely,



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