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July 8, 2008

VIA HAND DELIVERY

SEP Comments
NYSERDA
17 Columbia Circle
Albany, NY 12203-6399

Re: State Energy Planning Board Comments

To Whom it May Concern:

Enclosed please find two copies of the Comments of Fuel Cell Energy, Inc. on the State Energy Plan Scoping Paper. These comments are being submitted in response to the Draft Scope of the 2009 New York Energy Plan that was issued on May 30, 2008.

Your attention in reviewing these comments and including them in the State Energy Planning process is appreciated. Please contact me if you have any questions on our comments or if Fuel Cell Energy can provide any additional information.

Very truly yours,

Fuel Cell Energy, Inc.

John A. Franceschina / MHB

John A. Franceschina

JAF/mb
Enclosures
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COMMENTS OF FUELCELL ENERGY, INC. ON STATE ENERGY PLAN SCOPING PAPER

FuelCell Energy, Inc. ("FCE") is a leading provider of stationary, direct fuel cells that are able to provide base load generation using natural gas, biogas and other non-fossil based fuels as its fuel source. Using a non-combustion, electrochemical process FCE is able to convert fuel to energy that provides a 24/7 supply of clean, efficient energy. FCE's products also offer the additional advantage of cogeneration (i.e., combined heat and power). FCE has products that range in size from 300 kW to 2.4 MW. Additionally, multiple fuel cells can be combined to provide larger power output for applications ranging up to 50 MW. FCE offers these comments in response to the Draft Scope of the 2009 New York State Energy Plan that was issued on May 30, 2008 by the Energy Coordinating Working Group of the New York State Energy Planning Board.

Role of Distributed Generation in Long-Term Planning – The planning process should include an examination for how distributed generation ("DG") strategically located in load areas throughout New York State and specifically within New York City can defer or eliminate the need for utilities to make transmission and distribution ("T&D") system upgrades to accommodate increased load growth. As an example, distributed generation located at a substation, within a load area or at a customer's site can offset the need for the utility to make expensive enhancements to its system, or at a minimum, allow the utility to delay the installation or size of its infrastructure projects, either of which will aid in lowering the utility's need to raise capital (and customer's rates) to cover these projects. Investments

in DG can have a significant contribution in lowering a utility's capital budget, providing a utility the option to delay, or phase in, infrastructure investments and contribute to the overall reliability of the system. For these reasons, the planning process should examine the role that distributed generation can have on long-term planning, including, but not limited to, deferring T&D system upgrades and improving system reliability.

Role of Alternative Energy Production Facilities as Base Load Generation – The planning process should include an analysis for how certain types of alternative energy production facilities[1] can serve New York State as base load generation. Specifically, the current state of technologies should be examined for how they are able to provide 24/7 power distribution that can meet sizeable demand requirements (i.e., 1 MW and above). Additionally, because these alternative energy production facilities in certain situations are able to be installed near load areas there is a decreased strain on the existing utility's infrastructure. As discussed above, this decreased strain on a utility's T&D system can also have the additional advantage of deferring or eliminating system upgrades by locating base load generation in or near load areas or directly at a customer's facility. Accordingly, the planning process should examine the role that alternative energy production facilities can have on providing base load generation throughout the State.

[1] For purposes of these comments, alternative energy production facilities includes any solar, wind turbine, fuel cell, tidal, wave energy, waste management resource recovery, refuse-derived fuel or wood burning facility, together with any related facilities located at the same project site, with an electric generating capacity of up to eighty megawatts, which produces electricity, gas or useful thermal energy.

Comparison of the Relative Benefits of Alternative Energy Production Facilities – When examining alternative energy production facilities the planning process should examine the relative benefits and weaknesses of the various alternative energy production facility options. Specifically, the State Energy Plan when examining alternative energy production facilities should examine the relative advantages and disadvantages that each option offers and how best to use these alternative production facilities to meet the State's growing demand for clean, secure and reliable energy. As an example, factors that should be included in determining the relative strength of an alternative energy production facility should include: (i) the ability to provide continuous power (i.e., 24 hours a day, 7 days a week, 365 days a year); (ii) the ability to be centrally located or be used as on-site generation; (iii) the generator's SOx and NOx emissions; and (iv) the generator's CO2 output. Additionally, any necessary siting issues should be considered, including any known opposition that may exist for one source over another. The alternative energy production facility with the maximum number of positive attributes should be supported by the State Energy Plan and their development should be encouraged throughout the State. To assist New York in developing clean alternative energy production facilities, the planning process should include an analysis of various options and make recommendations for which ones the State should pursue.

Examination of Emerging Technology – Emerging technologies, both in the transportation energy sector (e.g., fuel cell hydrogen and plug-in cars) and power generation (e.g., ultra high efficiency power production based on fuel cell technology) should be included in the planning process. These technologies may offer the State significant resources in future

years and should begin to be examined as part of this planning process. As an example, later this year a technology will become commercially available that includes the co-production of power and hydrogen at over 60% efficiency before waste heat recovery in a system that can provide distributed power and hydrogen. Such systems have the potential to be the most efficient use of energy for power and transportation, minimizing green house gases and other emissions, and can be based on renewable fuels such as anaerobic digester gas. Accordingly, the planning process should include an analysis of emerging technologies that may have a positive commercial application in the future.

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