



June 4, 2021

VIA ELECTRONIC FILING

Aida Camacho-Welch, Secretary of the Board
Board of Public Utilities
44 South Clinton Avenue, 3rd Floor
Suite 314, CN 350
Trenton, New Jersey 08625-0350
Email: publiccomments@njcleanenergy.com

Re: Request for Comments in the Matter of the Clean Energy Programs and Budget for Fiscal Year 2022 in the Matter of the Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for Fiscal Year 2022 Clean Energy Program Docket No. QO21040720 and Docket No. QO21040721

Dear Secretary Camacho-Welch:

Please accept these comments on behalf of the National Fuel Cell Research Center in response to the May 18, 2021 New Jersey Board of Public Utilities Request for Comments on the Proposed New Jersey Clean Energy Program Fiscal Year 2022 Proposed Comprehensive Resource Analysis, Budgets and Program Plans.

Respectfully Submitted,

___/s/___ Jack Brouwer ___

Dr. Jack Brouwer
Director, National Fuel Cell Research Center
University of California Irvine
Irvine, CA 92697-3550
Email: jb@nfcrc.uci.edu
Phone: 949-824-1999 Ext. 11221

NEW JERSEY BOARD OF PUBLIC UTILITIES
OFFICE OF CLEAN ENERGY
COMMENTS OF THE NATIONAL FUEL CELL RESEARCH CENTER
IN THE MATTER OF THE CLEAN ENERGY PROGRAMS AND BUDGET FOR
FISCAL YEAR 2022 IN THE MATTER OF THE COMPREHENSIVE ENERGY
EFFICIENCY AND RENEWABLE ENERGY RESOURCE ANALYSIS FOR FISCAL
YEAR 2022 CLEAN ENERGY PROGRAM
DOCKET NO. QO21040720 AND DOCKET NO. QO21040721

I. Introduction and Background

The National Fuel Cell Research Center (“NFCRC”) appreciates the opportunity to submit comments to the New Jersey Board of Public Utilities (“BPU”) on the New Jersey Clean Energy Program (“NJCEP”) Fiscal Year 2022 Comprehensive Resource Analysis (“CRA”), Budget and Program Plans.

The National Fuel Cell Research Center 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 decarbonization of 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.

In these comments, the NFCRC respectfully recommends that the BPU ensure that program designs stimulate the market for the cleanest energy options, per the goals of the

NJCEP as follows:

- A. The CHP and Fuel Cell incentive levels should reflect the air quality and carbon emission reduction benefits of fuel cell systems, in alignment with statewide goals.**
- B. The manufacturer diversity cap should be applied across the NJCEP.**

II. Comments on the FY22 CRA, Budget and Program Plans

The Combined Heat and Power (“CHP”) and Fuel Cell program remains an important way for the BPU to address the immediate and future needs for improved air quality, decarbonization and resilient, reliable electricity. Fuel cell systems generate power (and heat) without combustion thereby avoiding criteria air pollutant and air toxic emissions. When fueled by biogas or hydrogen these same fuel cell systems emit no net carbon. These are important benefits of fuel cells systems in helping New Jersey achieve its objective to reduce emissions 80% by 2050.¹ Today, fuel cell systems are providing clean and resilient power to medical facilities, microgrids, communications infrastructure, data centers, multi-unit residential complexes, campuses and traffic and railroad crossing signals, in communities across the U.S.

With ongoing air quality issues,² and increased, extended power outages,³ in the State of New Jersey, the NFCRC strongly recommends that the BPU use the well-established NJCEP to address these issues by prioritizing the use of non-combustion resources that also provide greater resilience. Fuel cell systems are an ideal resource to avoid the use of diesel generators and

¹ New Jersey Department of Environmental Protection, *New Jersey’s Global Warming Response Act 80 x 50 Report*. Available at: [nj-gwra-80x50-report-2020.pdf](https://www.nj.gov/dep/80x50-report-2020.pdf)

² United States Environmental Protection Agency *Green Book*, data current as of May 31, 2021. Available at: [New Jersey Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants | Green Book | US EPA](https://www.epa.gov/greenbook/new-jersey-nonattainment/maintenance-status-for-each-county-by-year-for-all-criteria-pollutants-green-book-us-epa)

³ Power Outage Report, *Power Outages in New Jersey From 2000 to 2020*. Available at: [New Jersey Power Outage Statistics \(2000 - 2020\)](https://www.nj.gov/dep/power-outage-statistics-2000-2020)

combustion generation, which use only exacerbates the States air quality issues and related health impacts.

A. The CEP Should Allocate a Greater Incentive to Non-Combustion Resources

The NJCEP budget proposal from the compliance filings recommends a \$1 million incentive for non-combustion fuel cell systems that emit no air pollutants. The same proposal allocates an incentive that could be three times greater for the installation of a combustion CHP system that increases air pollutants. The NFCRC once again implores the BPU to change this recommendation to support, rather than hinder the goals of the Energy Master Plan and the 80 x 2050 target.

This week, the California Public Utilities Commission approved a Decision⁴ in the Self-Generation Incentive Program that includes the following requirements:

...to ensure that incentives are not awarded to facilities that could exacerbate exceedances of air quality standards, we prohibit award of SGIP incentives for internal combustion projects located in a county listed as a severe or extreme federal nonattainment area for particulate matter (PM₁₀ or PM_{2.5}) or eight-hour ozone (O₃) in the U.S. Environmental Protection Agency Green Book in any of the three years prior to the SGIP application date.⁵

The NFCRC recommends that the BPU consider such an approach in the interest of both customers and local communities that are adversely exposed to poor air quality.

⁴ California Public Utilities Commission, *Decision Revising Self-Generation Incentive Program Renewable Generation Technology Program Requirements and Other Matters*, June 3, 2021. Available at: https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:R2005012

⁵ See the U.S. Environmental Protection Agency Greenbook list of nonattainment counties by year, available here: https://www3.epa.gov/airquality/greenbook/anayo_ca.html.

B. Remove Manufacturer Diversity Caps for $\geq 40\%$ Fuel Cells

While the NFCRC appreciates the fact that the TRC compliance filing includes a process for Board Staff to approve exceptions to the manufacturer diversity cap, it remains inexplicable why this cap is only applied to fuel cell systems which have significantly greater emissions reduction impact than CHP/co-generation systems. The NFCRC again strongly urges that the BPU to remove the manufacturer diversity cap to maintain equitable distribution of incentives, and transparency, across the NJCEP. As in previous years, the compliance filings give no explanation as to why the cap is applied only to fuel cell systems.

III. Conclusion

The NFCRC appreciates the continued inclusion of fuel cell systems in the FY22 NJCEP and requests that the BPU take the simple steps of prioritizing incentives for technologies that decrease emissions and remove the manufacturer diversity cap to ensure an equitable and transparent program.