

What Powers You

March 29, 2024

Melanie Bachman, Esq.
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: Bloom Energy Corporation, **Notice of Exempt Modification Pursuant to RCSA 16-50j-57(a)** to Existing Fuel Cell Energy Facility Site at The Home Depot, 80 Buckland Hills Drive, Manchester, CT 06042 (“Notice of Exempt Modification”)

Dear Ms. Bachman:

This letter is to hereby notify the Connecticut Siting Council of Bloom Energy Corp.’s intent to undertake an exempt modification, in accordance with Section 16-50f-57(a) of the Regulations of Connecticut State Agencies (“RCSA”), for the necessary upgrade to Bloom’s fuel cell energy server system at **The Home Depot, located at 80 Buckland Hills Drive, Manchester, CT 06042**

Proposed Modification

The existing facility consists of one (1) 200kw Bloom Energy ES-5700 Energy Server, now reaching the end of its service life. Specifications for the existing equipment and new equipment to be installed are provided in Attachment 1. As-builts showing the existing facility layout is shown in Attachment 2. There will be no changes to the site footprints, layouts, or utility routing as Bloom plans to replace all components in kind.

Bloom Energy proposes the following modifications to the facility:

1. Disconnect existing servers from the natural gas source, water source, supervisory control and data acquisition, and electricity systems.
2. Remove the existing fuel cell servers.
3. Install one (1) current generation fuel cell server (Model No. ES5-1650US0301S-NASY4N-0) on existing concrete pad or skid at the site (direct replacement in kind).
4. Install new server repower components.

The proposed modification would not have a substantial adverse environmental effect or cause a significant adverse change or alteration in the physical or environmental characteristics of the facility because:



Bloom Energy Corporation
4353 North First Street, San Jose, CA 95134
408 543 1500
www.bloomenergy.com

What Powers You

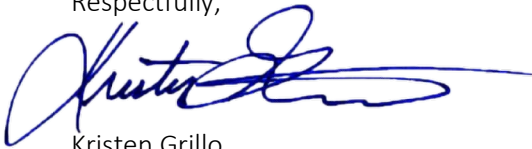
- a. The modification does not extend the boundaries of the site beyond the existing compound and will not impair the structural integrity of the facility.
- b. The modification does not increase the height of the existing associated equipment.
- c. The modification will not increase noise levels at the site boundary or to levels that exceed state and local criteria.
- d. Electric and magnetic field levels at the site will not be affected by the modifications due to low or no change in export of power from site.
- e. No endangered, threatened, or sensitive species are within the vicinity of the facility per NDDDB.
- f. The modifications would not affect any waterways or wetlands and the facility is not located in a flood zone.

Construction start is expected to begin on June 27th, 2024 and will be completed within 4-6 weeks.

Bloom will provide the Council with an original and two copies of this notice, including the required \$625 filing fee. A copy of this notice will also be provided to the Town of Manchester Mayor and the property owners representative, Colin Holloway via electronic mail.

Please let us know if you have any questions or require additional information regarding this notification. Thank you.

Respectfully,



Kristen Grillo

Senior Permitting Specialist | East Coast Field Office

Customer Installations Group | North America

(917) 803-4511

Kristen.Grillo@bloomenergy.com

CC: Jay Moran, Town of Manchester Mayor
Colin Holloway, The Home Depot



Bloom Energy Corporation
4353 North First Street, San Jose, CA 95134
408 543 1500
www.bloomenergy.com

Attachment 1: Bloom Energy Model Datasheets



ES-5700

Clean, Reliable, Affordable Energy



CLEAN, RELIABLE POWER ON DEMAND

Bloom Energy's ES-5700 delivers clean power that reduces emissions and energy costs. The modular architecture enables the installation to be tailored to the actual electricity demand, with a flexibility to add servers as the load increases. The ES-5700 actively communicates with Bloom Energy's network operations centers so system performance can be monitored and maintained 24 hours per day, 365 days per year.

INNOVATIVE TECHNOLOGY

Utilizing patented solid oxide fuel cell (SOFC) technology, the ES-5700 produces combustion-free power at unprecedented efficiencies, meaning it consumes less fuel and produces less CO₂ than competing technologies. Additionally, no water is needed under normal operating conditions.

ALL-ELECTRIC POWER

The ES-5700, which operates at a very high electrical efficiency, eliminates the need for complicated and costly CHP systems. Combining the standard electrical and fuel connections along with compact footprint and sleek design, the ES-5700 is the most deployable fuel cell on the market.

CONTROLLED AND PREDICTABLE COST

By providing efficient on-site power generation, the economic and environmental benefits are central to the ES-5700 value proposition. Bloom Energy customers can lock in their long term energy costs and mitigate the risk of electricity rate increases. The ES-5700 has been designed in compliance with a variety of safety standards and is backed by a comprehensive warranty.

About Bloom Energy

Bloom Energy is making clean, reliable energy affordable. Our unique on-site power generation systems utilize an innovative fuel cell technology with roots in NASA's Mars program. By leveraging breakthrough advances in materials science, Bloom Energy systems are among the most efficient energy generators, providing for significantly reduced operating costs and dramatically lower greenhouse gas emissions. Bloom Energy Servers are currently producing power for many Fortune 500 companies including Apple, Google, Walmart, AT&T, eBay, Staples, as well as notable non-profit organizations such as Caltech and Kaiser Permanente.

Headquarters:

Sunnyvale, California

For More Information:

www.bloomenergy.com

ES-5700

Technical Highlights

Outputs

Nameplate power output (net AC)	210 kW
Base load output (net AC)	200 kW
Electrical connection	480 V, 3-phase, 60 Hz

Inputs

Fuels	Natural gas, directed biogas
Input fuel pressure	15 psig
Water	None during normal operation

Efficiency

Cumulative electrical efficiency (LHV net AC)	52-60%
Heat rate (HHV)	6,295-7,264 Btu/kWh

Emissions

NO _x	< 0.01 lbs/MWh
SO _x	Negligible
CO	< 0.10 lbs/MWh
VOCs	< 0.02 lbs/MWh
CO ₂ @ stated efficiency	735-849 lbs/MWh on natural gas; carbon neutral on directed biogas

Physical Attributes and Environment

Weight	19.4 tons
Dimensions	26' 5" x 8' 7" x 6' 9"
Temperature range	-20° to 45° C
Humidity	0% - 100%
Seismic vibration	IBC site class D
Location	Outdoor
Noise	< 70 dBA @ 6 feet

Codes and Standards

Complies with Rule 21 interconnection and IEEE1547 standards
Exempt from CA Air District permitting; meets stringent CARB 2007 emissions standards
Product listed by Underwriters Laboratories Inc. (UL) to ANSI/CSA America FC 1-2004

Additional Notes

Access to a secure website to monitor system performance & environmental benefits
Remotely managed and monitored by Bloom Energy
Capable of emergency stop based on input from the site



Bloom Energy Corporation
1299 Orleans Drive
Sunnyvale CA 94089
T 408 543 1500
www.bloomenergy.com

Energy Server 5.5

Always On, Clean Energy
Using Patented Solid Oxide
Fuel Cell Technology



The Energy Server 5 provides combustion-free electric power with these benefits



Clean

Our systems produce near zero criteria pollutants (NOx, SOx, and particulate matter) and far fewer carbon emissions than legacy technologies.



Reliable

Bloom Energy Servers are designed around a modular architecture of simple repeating elements. This enables us to generate power 24 x 7 x 365 and can be configured to eliminate the need for traditional backup power equipment.



Resilient

Our system operates at very high availability due to its fault-tolerant design and use of the robust natural gas pipeline system. Bloom Energy Servers have survived extreme weather events and other incidences and have continued providing power to our customers.



Simple Installation and Maintenance

Our Energy Servers are 'plug and play' and have been designed in compliance with a variety of safety standards. Bloom Energy manages all aspects of installation, operation and maintenance of the systems.

Energy Server 5.5

Technical Highlights (E55-1650US0301S-NASY14-0)

Outputs

Nameplate power output (net AC)	165kW
Load output (net AC)	165kW
Electrical connection	480V, 3-phase, 60Hz

Inputs

Fuels	Natural gas
Input fuel pressure	12-18 psig (15 psig nominal)12-18 psig (15 psig nominal)Natural gas
Water	None during normal operation

Efficiency

Cumulative electrical efficiency (LHV net AC) ¹	65-53%
Heat rate (HHV)	5,811-7,127 Btu/kWh

Emissions²

NOx	0.0017 lbs/MWh
SOx	Negligible
CO	0.034 lbs/MWh
VOCs	0.0159 lbs/MWh
CO ₂ @ stated efficiency	679-833 lbs/MWh on natural gas; carbon neutral on directed biogas

Physical Attributes and Environment

Weight	9.9 tons
Dimensions (variable layouts)	10'9" x 8'8" x 7'0" or 21'6" x 4'4" x 6'9"
Temperature range	-20° to 45° C
Humidity	0%-100%
Seismic vibration	IBC site class D
Location	Outdoor
Noise	<70 dBA @ 6 feet

Codes and Standards

Complies with Rule 21 interconnection and IEEE1547 standards

Exempt from CA Air District permitting; meets stringent CARB 2007 emissions standards

An Energy Server is a Stationary Fuel Cell Power System. It is Listed by Underwriters Laboratories, Inc. (UL) as a 'Stationary Fuel Cell Power System' to ANSI/CSA FC1-2014 under UL Category IRGZ and UL File Number MH45102.

Additional Notes

Access to a secure website to monitor system performance & environmental benefits

Remotely managed and monitored by Bloom Energy

Capable of emergency stop based on input from the site

¹ 65% LHV efficiency verified by ASME PTC 50 Fuel Cell Power Systems Performance Test

² NOx and CO measured per CARB Method 100, VOCs measured as hexane by SCAQMD Method 25.3

About Bloom Energy

Bloom Energy's mission is to make reliable, clean energy affordable for everyone in the world. The company's product, the Bloom Energy Server, delivers highly reliable and resilient, Always On electric power that is clean and sustainable. Bloom's customers include twenty-five of the Fortune 100 companies and leaders in cloud services and data centers, healthcare, retail, financial services, utilities and many other industries.

Bloom Energy

4353 North First Street
San Jose, CA 95134

T 408 543 1500
F 408 543 1501

info@bloomenergy.com
www.bloomenergy.com

Be

© Bloom Energy Corporation 2019. All Rights Reserved
DOC-1015936 Rev B

Attachment 2: As-Built Site Plan

