### **Bloomenergy**

VIA ELECTRONIC MAIL

August 19, 2020

Melanie Bachman 10 Franklin Square New Britain, CT 06051

**RE: PETITION NO. 1420-** Bloom Energy Corporation petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 150-kilowatt customer-side fuel cell facility and associated equipment to be located at the Home Depot, 225 Berlin Turnpike, Berlin, Connecticut.

Dear Ms. Bachman:

Please see the attached responses to the interrogatories provided to Bloom Energy on August 14, 2020.

Sincerely,

Justin Adams Permitting Manager

**Bloomenergy** 

Connecticut 860.839.8373

justin.adams@bloomenergy.com

c: Alicia Surowiec, Bloom Energy Corporation

# Petition No. 1420 Bloom Energy Corporation Home Depot, 225 Berlin Turnpike Berlin, Connecticut

#### Interrogatories - Set I

1. Please provide a detailed Site Plan of the proposed facility, including but not limited to, the dimensions and locations of the proposed fuel cell facility, concrete pads, cabinets, fence design, bollards (if applicable) and utility connections.

**Response:** Please see the attached site plan with dimensions and locations of the proposed fuel cell facility, concrete pads, cabinets, fence design, bollards and utility connections.

2. Regarding the sound study provided as Exhibit 6 of the Petition, how close does the proposed fuel cell have to be to a building to be considered under Scenario 1? What is the distance of the proposed fuel cell facility to the building?

**Response:** The building would need to be adjacent to the fuel cell or within about 6 feet to be considered under Scenario 1. The proposed facility would be 14 feet from the existing building.

3. How often would the Desulfurization units be removed and replaced?

**Response:** This is largely dependent on the quality of the gas. Bloom Energy continuously monitors the performance of the fuel cell and will replace the desulfurization canisters when the system indicates a need. Based on sites currently operating in Connecticut, canister replacement frequencies are averaging between 18 and 24 months.

4. Was the project selected for the LREC/ZREC program?

**Response:** Yes, the project was selected for the LREC program.

5. Will fuel cell operation/emergency training be conducted with Town of Berlin (Town) emergency responders?

**Response:** Yes, as part of the building permit application review process the Berlin Fire Marshal will review the project. During this review, Bloom will provide any on-site training requested by local officials.



6. Please identify the media to be used for pipe cleaning procedures at the proposed facility in accordance with Connecticut General Statutes § 16-50ii as referenced on Petition page 4.

Response: Compressed air will be used at the proposed facility.

7. Does Bloom intend to reach out to the Town's Fire Marshal regarding natural gas pipe cleaning procedures prior to submission of a pipe cleaning plan/protocol?

**Response:** Yes, Bloom will coordinate with the Berlin Fire Marshal regarding the installation and pipe cleaning procedures prior to execution of the pipe cleaning protocol.



STORE NUMBER: #6203 225 BERLIN TPKE BERLIN, CT 06037-1505

# Bloomenergy®

2. ELECTRICAL WORK

3. PLUMBING WORK

NEW ELECTRICAL FEEDERS BETWEEN BLOOM ENERGY

NEW LREC METER AND CT CABINET TO BE INSTALLED.

SOURCE IN FACILITY TO BLOOM ENERGY SERVER.

NEW NATURAL GAS CONNECTION. NEW METER AND

NEW WATER CONNECTION FROM POTABLE WATER

REGULATOR REQUIRED.

SERVER AND EXISTING MAIN SERVICE SWITCHBOARD.

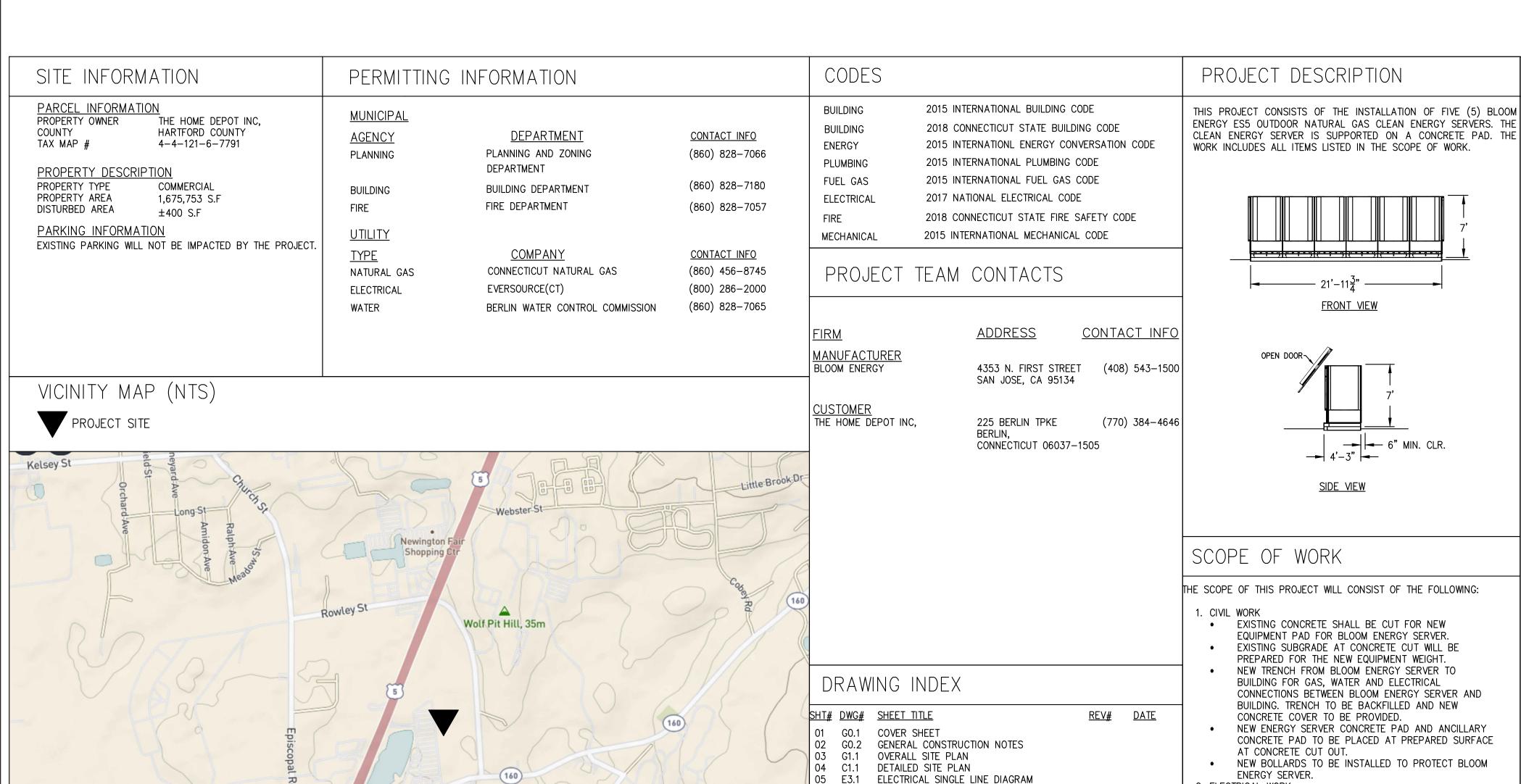


PRIOR TO COMMENCING ANY EXCAVATION OR DEMOLITION, THE CONTRACTOR SHALL CONTACT LOCAL UTILITIES, INCLUDING BUT NOT LIMITED TO ELECTRICAL, GAS, WATER, CABLE, AND TELEPHONE, REQUESTING A UTILITY MARK OUT AND AS NECESSARY RETAIN THE SERVICES OF A PRIVATE UTILITY MARK OUT COMPANY TO PERFORM RESPONSIBILITY TO LOCATE AND VERIFY THE LOCATION OF UTILITIES, IRRIGATION, SITE LIGHTING, AND ELECTRICAL LINES IN THE VICINITY OF THE CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR ANY AND ALL UTILITIES DAMAGED BY THE CONTRACTOR'S OPERATION AT NO ADDITIONAL EXPENSE

## Bloomenergy®

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Town Of Berlin

(Beckley Mills Road)

-White Oak Dr

Deming Rd

06 E3.2 ELECTRICAL THREE LINE DIAGRAM

07 RO.1 BLOOM ENERGY PRODUCT DATA SHEETS

### BLOOM ENERGY FAQ's

- Q: WHAT IS A BLOOM ENERGY SERVER?
- A: THE BLOOM ENERGY SERVER IS A STATIONARY FUEL CELL POWER SYSTEM.
- Q: IS THE BLOOM ENERGY SERVER PRODUCT LISTED OR CERTIFIED?
- A: YES. ES-5XXX SERIES: • THE FUEL CELL IS UL LISTED AS A "STATIONARY FUEL CELL POWER SYSTEM" TO ANSI/CSA AMERICA FC 1-2004. • IT IS UL LISTED UNDER UL CATEGORY IRGZ AND UL FILE NUMBER MH45102
- ES5 SERIES: • THE FUEL CELL IS UL LISTED AS A "STATIONARY FUEL CELL POWER SYSTEM" TO ANSI/CSA FC 1-2014.
- IT IS UL LISTED UNDER UL CATEGORY IRGZ AND UL FILE NUMBER MH45102
- Q: WHERE ARE FUEL CELLS COVERED IN THE NATIONAL ELECTRICAL CODE (NEC)?
- A: FUEL CELLS ARE COVERED IN ARTICLE 692 OF THE NEC (NFPA 70). FUEL CELLS HAVE BEEN INCORPORATED INTO THE
- Q: WHAT IS THE MODEL NUMBER OF THIS PRODUCT?
- A: PLEASE SEE THE DATA SHEET PROVIDED WITH THIS FAQ.
- Q: WHAT IS THE NOISE LEVEL OF THE FUEL CELL SYSTEM?
- A: FOR SPECIFIC DB RANGES, PLEASE REFER TO THE DATA SHEET PROVIDED WITH THIS FAQ.
- Q: DO BLOOM ENERGY FUEL CELL SYSTEMS PROVIDE LIFE SAFETY POWER? A: NO. WE ARE NOT LIFE SAFETY AND DO NOT PROVIDE LIFE SAFETY POWER, EVEN WHEN A UPM IS INSTALLED. WE ARE
- NOT ALTERING WHATEVER LIFE SAFETY IS CURRENTLY PRESENT AT THE FACILITY.
- Q: IS THE BLOOM ENERGY FUEL CELL SYSTEM TAMPER-PROOF?
- A: YES. THE FUEL CELLS ARE SECURED IN PLACE AND DOORS ARE SECURED AND LOCKED. ONLY BLOOM SERVICE
- PERSONNEL HAVE THE KEYS AND CAN BE ON-SITE WITHIN 24 HOURS.
- Q: WHAT HAPPENS TO THE CUSTOMER FACILITY POWER IF THE FUEL CELLS SHUT DOWN?
- A: THE FUEL CELL SYSTEM IS OPERATED IN GRID-PARALLEL MODE. IF THE UTILITY GRID IS OPERATIONAL, THE CUSTOMER
- FACILITY WILL RECEIVE POWER FROM THE GRID AND NOTICE NO DIFFERENCE. Q: WHAT HAPPENS TO THE FUEL CELL SYSTEM WHEN THE UTILITY POWER SHUTS DOWN?
- A: IF UTILITY PROVIDED POWER IS LOST FOR ANY REASON, THE FUEL CELL SYSTEM WILL ALSO STOP PRODUCING POWER. THE FUEL CELL SYSTEM WILL REMAIN IN STAND-BY MODE UNTIL IT AUTOMATICALLY SENSES THE UTILITY GRID HAS BEEN
- Q: WHAT HAPPENS TO THE FUEL CELL SYSTEM WHEN THE UTILITY GAS SHUTS DOWN? A: IF THE UTILITY GAS IS INTERRUPTED, THE FUEL CELL SYSTEM WILL AUTOMATICALLY SHUT DOWN AS WELL.
- Q: CAN THE FUEL CELL SYSTEM BE SHUT DOWN LOCALLY IN CASE OF AN EMERGENCY?
- A: YES. IF THE FUEL CELL MUST BE SHUT DOWN RIGHT AWAY -- FOR EXAMPLE, IN CASE OF A BUILDING FIRE OR ELECTRICAL HAZARD—TWO SHUTOFF CONTROLS ARE INSTALLED AT THE FACILITY EXTERNAL TO THE SYSTEM. THE LOCATIONS
- OF THESE TWO CONTROLS SHOULD BE KNOWN TO THE FACILITIES MANAGER BEFORE OPERATION AND SHOULD BE NOTED ON THE SITE DIAGRAM THAT IS CREATED FOR EACH SITE DURING INSTALLATION. THE TWO SHUTOFFS ARE: (1) THE ELECTRICAL DISCONNECT SWITCH AND
- (2) THE MANUAL NATURAL GAS SHUTOFF VALVE. A THIRD SHUTOFF, AN EMERGENCY POWER OFF (EPO) BUTTON, MAY BE PROVIDED ON-SITE.
- Q: DOES THE BLOOM ENERGY FUEL CELL SYSTEM OPERATE 24/7?
- A: YES.
- Q: ARE THE BLOOM ENERGY FUEL CELL SYSTEMS MONITORED?
- A: YES. BLOOM ENERGY FUEL CELL SYSTEMS ARE CONTROLLED REMOTELY AND HAVE INTERNAL SENSORS THAT CONTINUOUSLY MONITOR SYSTEM OPERATION. IF SAFETY CIRCUITS DETECT A CONDITION OUTSIDE NORMAL OPERATING PARAMETERS, THE FUEL SUPPLY IS STOPPED AND INDIVIDUAL SYSTEM COMPONENTS ARE AUTOMATICALLY SHUT DOWN. A BLOOM ENERGY REMOTE OPERATOR CAN ALSO REMOTELY INITIATE ANY EMERGENCY SEQUENCE. AN EMERGENCY STOP ALARM INITIATES AN AUTOMATIC SHUTDOWN SEQUENCE THAT PUTS THE SYSTEM INTO "SAFE MODE" AND CAUSES IT TO STOP EXPORTING POWER. IF YOU HAVE QUESTIONS ABOUT ANY OF THESE SAFETY FEATURES, PLEASE CONTACT BLOOM ENERGY AT CUSTOMERCARE@BLOOMENERGY.COM.
- Q: WHAT ARE THE EMISSIONS GENERATED BY BLOOM ENERGY FUEL CELL SYSTEMS?
- A: THE SPECIFIC PERCENTAGE OF CARBON EMISSION REDUCTIONS ARE DEPENDENT ON YOUR STATE'S GENERATION MIX, BUT BLOOM ENERGY FUEL CELL SYSTEMS VIRTUALLY ELIMINATE NOX, SOX, AND OTHER CRITICAL AIR POLLUTANTS THAT ARE FOUND IN TRADITIONAL ELECTRICITY GENERATION METHODS. FOR SPECIFIC EMISSIONS RANGES, PLEASE REFER TO THE DATA SHEET PROVIDED WITH THIS FAQ.
- Q: WHAT IS THE SUSTAINABILITY IMPACT OF BLOOM ENERGY FUEL CELL SYSTEMS?
- A: BLOOM ENERGY FUEL CELL SYSTEMS GENERATE ELECTRICITY ON-SITE THROUGH AN EFFICIENT ELECTROCHEMICAL REACTION WITHOUT COMBUSTION. DUE TO THE HIGH EFFICIENCY (60%-53% COMPARED TO A COMBINED CYCLE NATURAL GAS PLANT WITH EFFICIENCY OF 40-45% OR COAL PLANTS AT 35%) BLOOM ENERGY SERVERS REDUCE CARBON EMISSIONS BY 20-50% COMPARED TO THE US GRID EMISSION RATES. THE VARIATION IN EMISSIONS REDUCTION IS DUE TO THE VARIATION IN HOW DIFFERENT STATES GENERATE ELECTRICITY. IN ADDITION, BLOOM ENERGY FUEL CELL SYSTEMS USE NO WATER DURING NORMAL OPERATION

REVISION HISTORY REV REVISION ISSUE DATE

THE HOME DEPOT INC,

STORE #6203

225 BERLIN TPKE

BERLIN, CT 06037

DESIGNED BY		REVIEWED BY	
DD A WAL DV		ADDDOVED BY	

| APPROVED BY SAHANA S GOWDA

SHEET TITLE

CUSTOMER SITE

COVER SHEET

DRAWING NUMBER

G0.1

BLOOM DOCUMENT DOC-1012971

THIS DRAWING IS 24" X 36" AT FULL SIZE SHEET 01 OF 07 SITE ID: HDP206.0

