



Attn: Robert Stein, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: Petition of Bloom Energy Corporation, as agent for Stanley Black & Decker, for a Declaratory Ruling for the Location and Construction of a 200kW Fuel Cell Customer Side Distributed Resource at 65 Scott Swamp Road, Farmington, CT 06032.

Dear Chairman Stein:

We are submitting an original and fifteen (15) copies of the above-captioned Petition, together with the filing fee of \$625.

In the Petition, Bloom Energy Corporation (“Bloom”), as agent for Stanley Black & Decker (“SB&D”), request the Connecticut Siting Council approve the location and construction of a 200 kilowatt fuel cell and associated equipment (the “Facility”). The Facility will be located on the site of the SB&D building at 65 Scott Swamp Road (the “Site”). Electricity generated by the Facility will be consumed at the Site, and any excess electricity will be exported to the electric grid. The Facility will be fueled by natural gas.

Should you have any questions, concerns, or require additional information, please contact me at (860) 839-8373.

Sincerely,
Bloom Energy

A handwritten signature in black ink, appearing to read "Justin Adams".

Justin Adams
justin.adams@bloomenergy.com
(860) 839-8373

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

PETITION OF BLOOM ENERGY : PETITION NO. ____
CORPORATION AS AGENT FOR STANLEY :
BLACK & DECKER FOR A DECLARATORY :
RULING FOR THE LOCATION AND :
CONSTRUCTION OF A 200-KILOWATT FUEL :
CELL CUSTOMER-SIDE DISTRIBUTED : November 29, 2016
RESOURCE AT 65 SCOTT SWAMP ROAD,
FARMINGTON, CONNECTICUT

PETITION OF BLOOM ENERGY CORPORATION AS AGENT FOR STANLEY BLACK
& DECKER FOR A DECLARATORY RULING

Pursuant to Conn. Gen. Stat. §§ 4-176 and 16-50k(a) and Conn. Agencies Regs. § 16-50j-38 et seq., Bloom Energy Corporation (“Bloom”), as agent for Stanley Black & Decker (“SB&D”), requests that the Connecticut Siting Council (“Council”) approve by declaratory ruling the location and construction of a customer-side distributed resources project comprised of one (1) new ES-5 Bloom Energy Servers solid oxide fuel cells and associated equipment (the “Facility”), providing 200-kilowatts (“kW”) (net) of power to the Frontier building located at 65 Scott Swamp Road, Farmington, CT Connecticut (the “Site”). *See* Exhibit 1. The Facility will be installed, maintained and operated by Bloom and owned Key Equipment Finance, a third party financing source of Bloom under an agreement with Stanley Black and Decker.

Conn. Gen. Stat. § 16-50k(a) provides that:

Notwithstanding the provisions of this chapter or title 16a, the council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling . . . (B) the construction or location of any fuel cell, unless the council finds a substantial adverse environmental effect or of any customer-side distributed resources project or facility . . . with a capacity of not more than sixty-five megawatts, as long as such project meets air and water quality standards of the Department of Energy and Environmental Projection.”



The proposed Facility will be a customer-side distributed resource facility under 65 megawatts (“MW”) that complies with the air and water quality standards of the Department of Energy and Environmental Protection (“DEEP”). Bloom submits that no Certificate is required because the proposed modifications would not have a substantial adverse environmental effect in the immediate vicinity of the Facility as well as in the State of Connecticut.

I. COMMUNICATIONS

Correspondence and other communication regarding this petition should be directed to the following parties:

Justin Adams
Bloom Energy Corporation
1299 Orleans Drive
Sunnyvale, CA 94089
Telephone: (860) 839-8373
Fax: (408) 543-1501
Email: justin.adams@bloomenergy.com

Vincent De Meis
Bloom Energy Corporation
1299 Orleans Drive
Sunnyvale, CA 94089
Telephone: (856) 437-6356
Fax: (408) 543-1501
Email: vincent.demeis@bloomenergy.com

II. DISCUSSION

A. Project Description and Purpose

The Facility will be 200kW customer-side distributed resources consisting of one state-of-the-art Bloom Energy Servers and associated equipment. The Facility will be interconnected to the existing switchboard located inside the electrical room of the SB&D building (the “Building”). *See* Exhibit 2.

The proposed Facility is a “customer-side distributed resources” project because it will be “a unit with a rating of not more than sixty-five megawatts [and is located] on the premises of an industrial end user within the transmission and distribution system including, but not limited to,



fuel cells . . .” Conn. Gen. Stat. § 16-1(a)(40)(A). Further, in its Final Decision in Docket No. 12-02-09, dated September 12, 2012, the Connecticut Public Utilities Regulatory Authority (“PURA”) determined that Bloom’s Energy Server qualifies as a Class I renewable energy source fuel cell as defined in Conn. Gen. Stat. §16-1(a)(26)(A). *See* Exhibit 3.

The purpose of the proposed Project is to replace the average baseload of the Building with a Class I renewable energy source, achieve corporate sustainability goals, and improve reliability of electrical systems and equipment. Bloom compiled monthly electric usage data for the Building and sized the facility to provide enough power to meet 80% of the average electric base load under normal operating conditions. Electricity generated by the Facility will be consumed primarily at the Site, and any excess electricity will be exported to the grid.

B. The Facility

The Facility will consist of one Bloom solid oxide fuel cell Energy Servers and associated equipment. The dimensions of the Facility are approximately 30 feet long, 4 feet wide and 7 feet high. The Energy Server module is enclosed, factory-assembled and tested prior to installation on the Site. *See* Exhibit 6.

The Facility will be capable of producing 200 kW of continuous, reliable electric power. The Facility will interconnect to the Site’s distribution system and operate in parallel with the grid to provide the Site’s electrical requirements. Any electricity generated in excess of the Site’s requirement will be exported to the grid in accordance with the Ever source Generator Interconnection Technical Requirements. This site will not have an uninterruptible power module (“UPM”) and thus will not have any means to output power in a grid independent capacity at any time. The interconnection will be provided from the existing switchboard located



inside the electrical room. The interconnection application for the Facility was submitted and under review at the time this petition was filed. The Energy Server will be fueled by natural gas supplied by Connecticut Natural Gas Corp.

The Facility, and more specifically the inverters within, are UL1741/IEEE1547 compliant and thus will not operate without a stable utility voltage available. In the event of an outage the Facility will not automatically shut down, they will enter a state of stand-by awaiting the return of a stable utility voltage. When in a state of complete shut down the Energy Server require a combination of remote and on-site coordination to start up the systems. This work is performed by Bloom employed, trained and certified personnel only, SB&D does not control the operation of the system directly. In accordance with Public Act 11-101¹, the Emergency Response Plan provided to SB&D and its employees is shown in Exhibit 7.

The Facility will have extensive hardware, software and operator safety control systems, designed into the system in accordance with ANSI/CSA America FC 1-2004, the American National Standards Institute and Canadian Standards Association standard for Stationary Fuel Cell Power Systems. The Energy Servers are remotely monitored by Bloom 24 hours a day, seven days a week. If software or hardware safety circuits detect an unsafe condition, variation in temperature or gas pressure outside of operational parameters, fuel supply is automatically stopped and the system is shut down. Two manual fuel shut-off valves are provided at each installation site, and two normally closed, safety shut-off rated isolation valves are installed within the system. In accordance with Public Act 11-101², the fuel lines (pipe) cleaning

¹ An Act Adopting Certain Safety Recommendations of the Thomas Commission

² Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission,



procedure are to purge for 60 seconds with 10 blasts of on off with an inert gas prior to connecting to the Facility. The Facility will be installed in compliance with all applicable building, plumbing, electrical, and fire codes.

Bloom Energy Servers are installed in accordance with NFPA 853³. This standard provides fire prevention and fire protection requirements for safeguarding life and physical property associated with buildings or facilities that employ stationary fuel cell systems of all sizes. The risk of fire related to the operation of the Energy Server is therefore very low. Furthermore, in the Energy Server, natural gas is not burned; it is used in a chemical reaction to generate electricity. The natural gas is digested almost immediately upon entering the unit and is no longer combustible. As stated above, any variation in heat outside of the operational parameters will trigger an automatic shutdown of the energy server.

C. Existing Environment

i. The Site

The Facility would be installed entirely within the SB&D property located at 65 Scott Swamp Road, Farmington, Connecticut. Specifically, the Facility will be constructed on the 27.02-acre property (“the Site”) that surrounds the Building. The Site is zoned as “Industrial CR Zone” (“CR”) under the zoning regulations of the Town of Farmington (the “Town”). The majority of the surrounding areas are zoned under CR, Industrial C1 Zone (“C1 “), and Business B1 Zone (“B1”).

³ Standard for the Installation of Stationary Fuel Cell Power Systems, 2015 Edition

The Facility will be located on a concrete pad within the front parking field at at the northeast corner of the building. The facility will be placed at the south end of the parking field within an existing drive aisle adjacent to an exterior building. This location will require the ‘one-way’ drive aisle to be re-aligned and elimination of three (3) parking spaces to accommodate the facility. Photos of the proposed location and adjacent areas are provided in Exhibit 4.

ii. Wildlife, Habitat and Cultural Resources

A review of the publically available Natural Diversity Database (NDDDB) has shown no known occurrences of state-listed species within the proposed Facility location. Furthermore, the proposed Facility will be located on a landscape area that was previously developed and disturbed during construction of the Building and contains no wetlands or cultural resources. Therefore, the construction and operation of the Facility will not have a substantial adverse effect on wetlands, state-listed species, and cultural (archaeological and historical) resources.

iii. Flood and Coastal Zones

A review of the flood hazard mapping data from Federal Emergency Management Agency’s (“FEMA”) National Flood Insurance Program (“NFIP”) has shown the Facility would not be located within a 100- or 500-year flood zone. The Site was also reviewed for proximity to the Coastal Boundary, which delineates the coastal boundary of Connecticut as defined in the Connecticut Coastal Management Act. As shown in Exhibit 5, the proposed Facility would not be located within the Coastal Boundary.

D. Environmental Effects and Mitigation

i. Natural Gas Desulfurization Process



The first step in the production of electricity in the Bloom Energy server is desulfurization – the removal of the sulfur compounds, which have been added to the natural gas as an odorant by the natural gas suppliers. This step occurs in the desulfurization unit – a canister which contains a filter made for this purpose. Sulfur is not “produced” in this process, but is separated from the natural gas in which it was contained. In this process, trace levels of sulfur oxides and other naturally occurring elements, such as benzene, may also absorb to the filter. In this process, the catalyst may also pick up some benzene and in some cases exceed the RCRA threshold. The catalysts are sent to a central location and processed by a qualified facility in Texas. Again, these are not “produced” from the process, but are separated from the natural gas in which they were contained. The filter is made up of inert materials.

The desulfurization process takes place entirely within desulfurization canisters. These are made of extruded aluminum or zinc-plated steel that are built to last for the life of the Energy Server and beyond. Because they are built to hold natural gas, their structural integrity is essential. That integrity is assured by around the clock monitoring of the Energy Servers to detect any leak. Were there a leak, the Server (including the desulfurization operation) would shut down automatically. There has never been a leak from one of the desulfurization canisters. The structural integrity and leak prevention continues after the desulfurization canisters are removed from service. At that point, the entry and exit points for the natural gas automatically seal shut. The desulfurization canister remains sealed and is not opened at the Site, or anywhere in the State of Connecticut.

Within days that a desulfurization canister is taken out of service, it is picked up by a Bloom contractor and taken to a licensed facility outside the State, where the desulfurization unit



is opened and the contents are removed. As described above, the desulfurization unit has complete structural integrity. Its safety as a container for transporting has been certified by the Department of Transportation (DOT). This certification assures that the canisters are secure and have the structural integrity to transport the desulfurization materials safely and without risk of a release.

Bloom has been engaged and expects to have further follow up discussion with regulators on the proper management of materials found in all public pipeline natural gas supplied to homes and businesses, which we filter before that fuel is consumed by our product to produce clean, environmentally friendly electric power. Because our technology is relatively new, the 35 year old regulations do not address our situation, but we have been working with the regulators to obtain clarification.

ii. Water, Heat and Air Emissions

The construction and operation of the Facility will comply with DEEP's air and water quality standards and will not have a substantial adverse environmental effect.

With respect to water discharges, the Energy Servers are designed to operate without water discharge under normal operating conditions. There are no connections or discharge points to the proposed Facility. Additionally, the Facility would use no water during normal operation beyond a 75-gallon injection at start up.

Heat generated by the proposed Facility is used internally to increase the electrical efficiency of the fuel cell system. As a result there is no useful waste heat generated by the fuel cell. The minimal amount of thermal load present at the host site would preclude the efficient deployment of a combined heat and power application.



Conn. Agencies Regs. § 22a-174-42, which governs air emissions from new distributed generators, exempts fuel cells from air permitting requirements. Accordingly, no permits, registrations, or applications are required based on the actual emissions from the Facility. See Conn. Agencies Regs. §§ 22a-174-42(b) and (e). Even though the fuel cell systems are exempt from the emissions requirements, Bloom Energy does meet the emissions standards of Section 22a-174-42. Per Section 22a-174-42(e)(1)(A) a certification by the California Air Resources Board pursuant to Title 17, sections 94200 through 94214 of the California Code of Regulations meets the requirements of the DEEP Section 22a-174-42. The Bloom Energy fuel cells are certified under the California Air Resources Board (CARB) distributed generation program. A current list of certified application are provided on the CARB's distributed generation certification website (<http://www.arb.ca.gov/energy/dg/eo/eo-current.htm>).

The Facility will also meet state criteria thresholds and projected emissions for all greenhouse gases defined in Section 22a-174-1(49) as shown in Table 1. By virtue of the non-combustion process the Bloom fuel cells virtually eliminate NO_x, SO_x, CO, VOCs and particulate matter emissions from the energy production process. Similarly, there are no CH₄, SF₆, HFC or PFC emissions. The CH₄ is broken down in the reforming process. Reforming is the type of process where if you have sufficient catalyst, the reaction can go all the way to completion. That is the case for the Bloom Energy Server. The fuel is reformed in the hot box – with a very significant excess catalyst for reaction.

The proposed Facility will ultimately displace less efficient fossil fueled marginal generation on the ISO New England system. Based upon US Environmental Protection Agency

(EPA) “eGrid” data the proposed facility is expected to reduce carbon emissions by more than 25% while essentially eliminating local air pollutants like NO_x, SO_x, and particulate matter.

Table 1: Connecticut Thresholds for Greenhouse Gases

Emission Type	Bloom Output	LERC allowance
Nitrous Oxides (NO _x)	<0.01 lbs/MWh	0.07 lbs/MWh
Carbon Monoxide (CO)	<0.10 lbs/MWh	0.10 lbs/MWh
Sulfur Oxides (SO _x)	Negligible	Not Listed
Volatile Organic Compounds (VOCs)	<0.02 lbs/MWh	0.02 lbs/MWh
Carbon Dioxide (CO ₂) See note 1	735-832 lbs/MWh	Not Listed

Note 1: Carbon Dioxide is measured at Bloom’s stated lifetime efficiency level of 53-60%

iii. Sound Levels

It is not anticipated for sound to have any negative impacts generated by the Facility to surrounding properties. The closest property that could possibly be impacted is an office building located on the opposite side of Scott Swamp Road, approximately 550 linear feet from the fuel cell location. Based on sound data performed by Bloom Energy, the anticipated sound levels at the property boundary would be approximately 37dB and in compliance with noise criteria set forth in Connecticut regulations for the Control of Noise.

With respect to residential properties, the closest property to the Facility is 750 linear feet located on the opposite side of the building. Any sound generated from the facility will be shielded by the building. Additionally, there is a residential development is located approximately 1400 linear feet across an undeveloped and wooded area which sound will not impact.

iv. Visual Effects



The facility will be located against the existing building at the south end of the front parking field and will be visible for vehicles entering the site to promote SB&D's commitment to alternative energy. However, the facility was placed to not be the focal point of the site and located away from the main entrance into the building for this area. The facility will not impede pedestrian or vehicular line of sight traveling through the site.

E. Project Construction and Maintenance

During construction, appropriate erosion and sedimentation (E&S) controls will be installed and areas of disturbance will be promptly stabilized in order to minimize the potential for soil erosion and the flow of sediments off site. Temporary E&S control measures will be maintained and inspected throughout construction to ensure their integrity and effectiveness. The temporary E&S control measures will remain in place until the work is complete and all disturbed areas have been stabilized. Due to the limited disturbance required for the Facility's installation, no construction-related storm water permits will be required. Further, no additional impervious area will be added to the Site and will not affect drainage patterns or stormwater discharge.

Construction-related impacts will be minimal. The Facility will be located within an existing asphalt area behind the Building. The facility will not extend beyond the limits of the existing asphalt area. All utilities will be installed within the asphalt area and along the rear face of the Building. All utility trenches will be restored in-kind.

III. COMMUNITY OUTREACH

Bloom has provided notice of this petition to all persons and appropriate municipal officials and governmental agencies to whom notice is required to be given pursuant to Conn.



Agencies Regs. § 16-50j-40(a).⁴ A copy of the notice letter and a service list are provided in Exhibits 8 and the corresponding abutters map is provided in Exhibit 9. Additionally, prior to filing this petition, representatives from Bloom briefly discussed the proposed Facility with the Town of Farmington Planning Department. An opportunity to comment on the proposed Site Plan has been provided to the Mayor and Town Planner to incorporate any design comments they may have. *See* Exhibit 10.

IV. BASIS FOR GRANTING OF THE PETITION

Under Conn. Gen. Stat. § 16-50k(a), the Council is required to approve by declaratory ruling the construction or location of a customer-side distributed resources project or facility with a capacity of not more than 65 MW, as long as the facility meets DEEP air and water quality standards. The proposed Facility meets each of these criteria. The Facility is a “customer-side distributed resources” project, as defined in Conn. Gen. Stat. § 16-1(a)(40)(A), because the Facility is “a unit with a rating of not more than sixty-five megawatts [and is located] on the premises of a retail end user within the transmission and distribution system including, but not limited to, fuel cells” and, as demonstrated herein, will meet DEEP air and water quality standards. In addition, as demonstrated above, the construction and operation of the Facility will not have a substantial adverse environmental effect in the State of Connecticut.

⁴ Conn. Agencies Regs. § 16-50j-40(a) requires that “[p]rior to submitting a petition for a declaratory ruling to the Council, the petitioner shall, where applicable, provide notice to each person other than the petitioner appearing of record as an owner of property which abuts the proposed primary or alternative sites of the proposed facility, each person appearing of record as an owner of the property or properties on which the primary or alternative proposed facility is to be located, and the appropriate municipal officials and government agencies [listed in Section 16-50l of the Connecticut General Statutes].”



V. CONCLUSION

For the reasons stated above, Bloom, as agent for SB&D, respectfully requests that the Council approve the location and construction of the Facility by declaratory ruling.

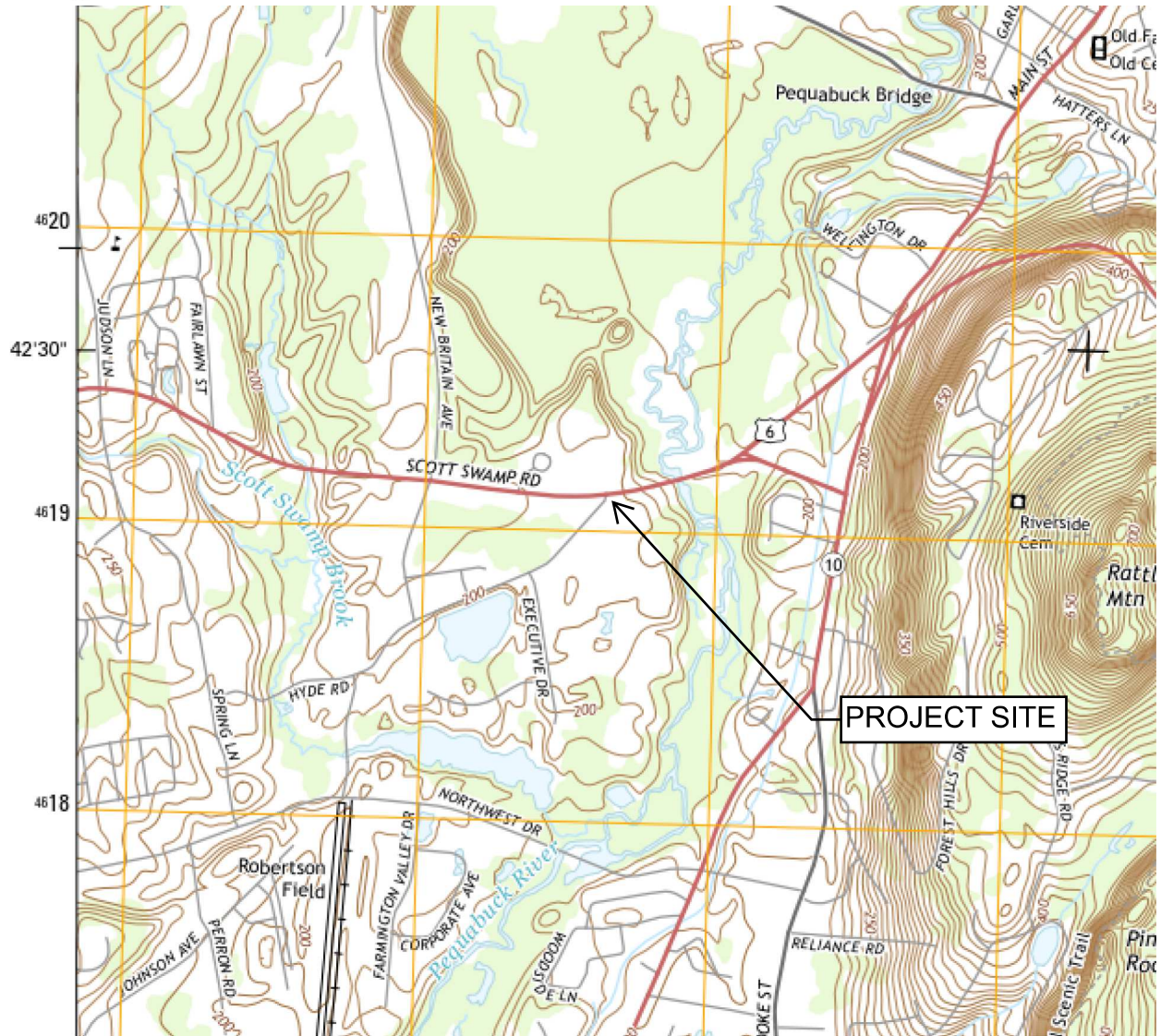
Respectfully submitted,
Bloom Energy Corporation

By: _____
Justin Adams
Bloom Energy Corporation
1299 Orleans Drive
Sunnyvale, CA 94089
Telephone: (408) 338-7452
Email: justin.adams@bloomenergy.com

EXHIBITS

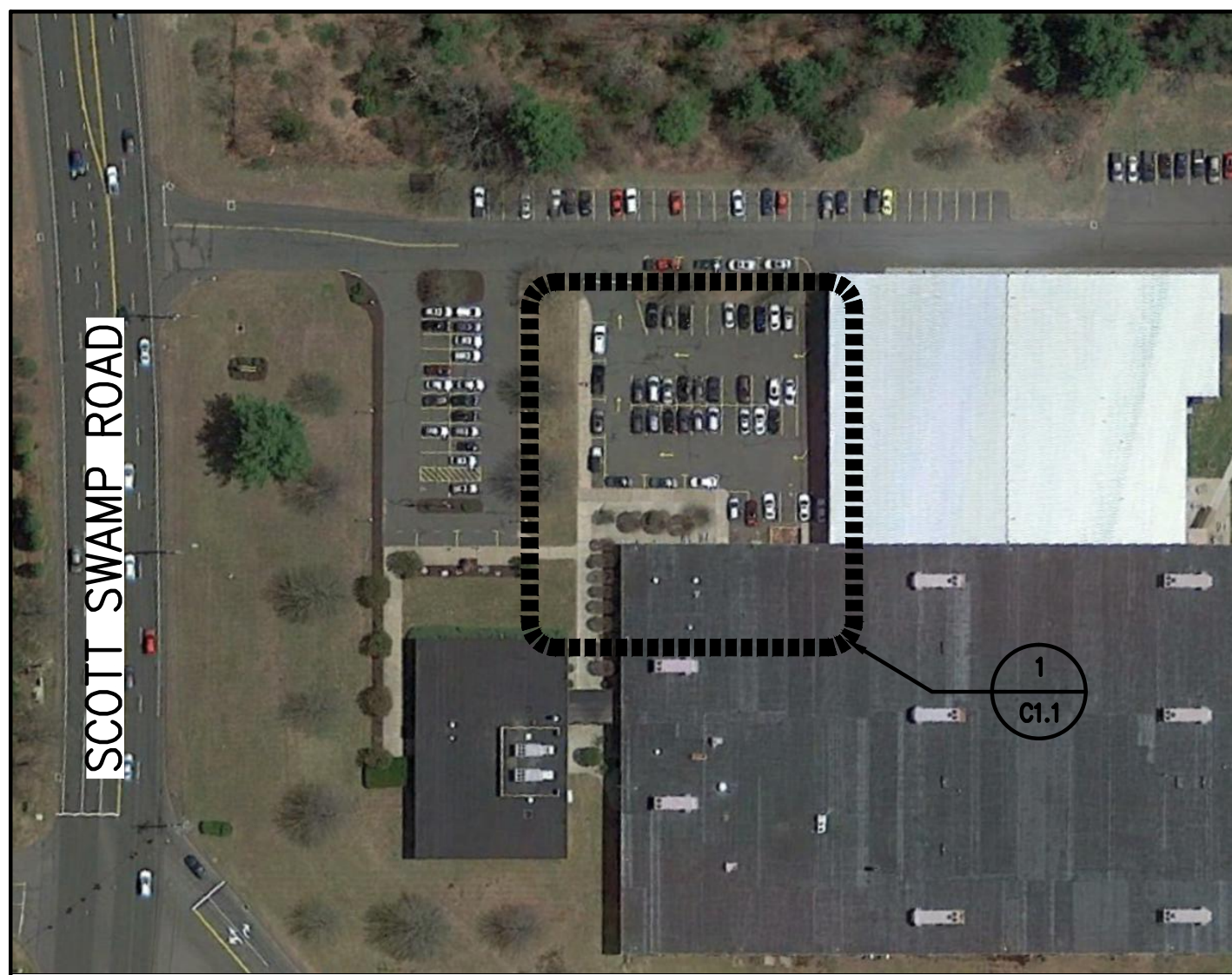
- Exhibit 1: Site Location Map
- Exhibit 2: Site Plan
- Exhibit 3: Final Decision, PURA Docket No. 12-02-09, *Petition of Bloom Energy Corporation for a Declaratory Ruling that Its Solid Oxide Fuel Cell Energy Server Will Qualify as a Class I Renewable Energy Source* (Sept. 12, 2012)
- Exhibit 4: Photos of the proposed location
- Exhibit 5: Coastal Boundary of Connecticut as defined in the Connecticut Coastal Management Act
- Exhibit 6: Bloom Energy Server Product Datasheet and General Installation Overview
- Exhibit 7: Emergency Response Plan
- Exhibit 8: Notice Pursuant to Conn. Agencies Regs. § 16-50j-40(a)
- Exhibit 9: Abutters Map
- Exhibit 10: Letter to Mayor, City Planner, and Parcel Abutters

Exhibit 1



Job #:	20161407	GreenbergFarrow	Bloomenergy	1252 Orleans Drive, Sunnyvale, CA 94089 Tel: 408.543.1500 Fax: 408.543.1501
Scale:	1" = 24,000'		65 Scott Swamp Road Farmington, CT 06032	
Date:	10/27/2016		SITE LOCATION MAP USGS MAP	
Drawn By:	JC			

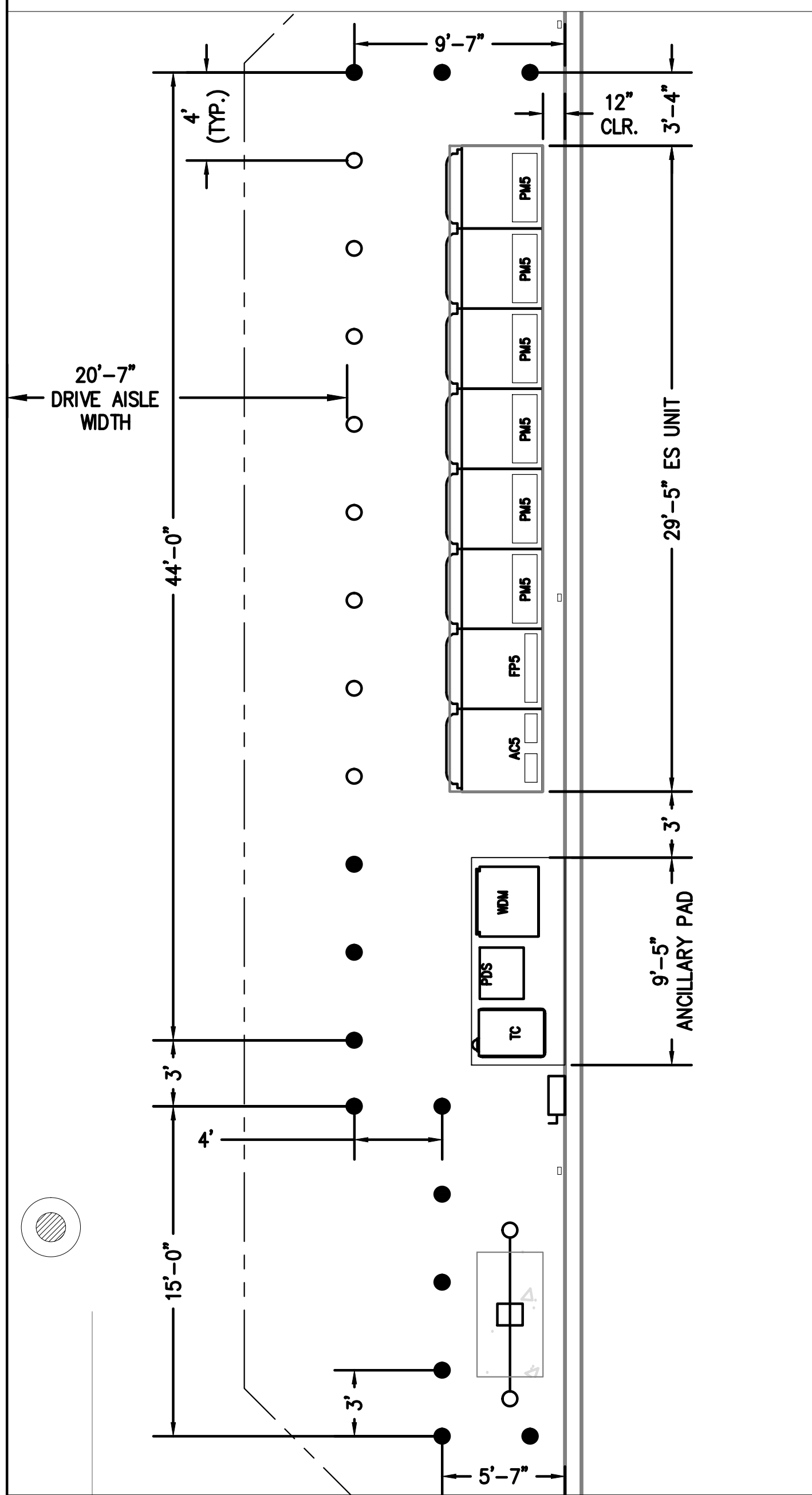
Exhibit 2



OVERALL SITE PLAN

SCALE: 1" = 100'

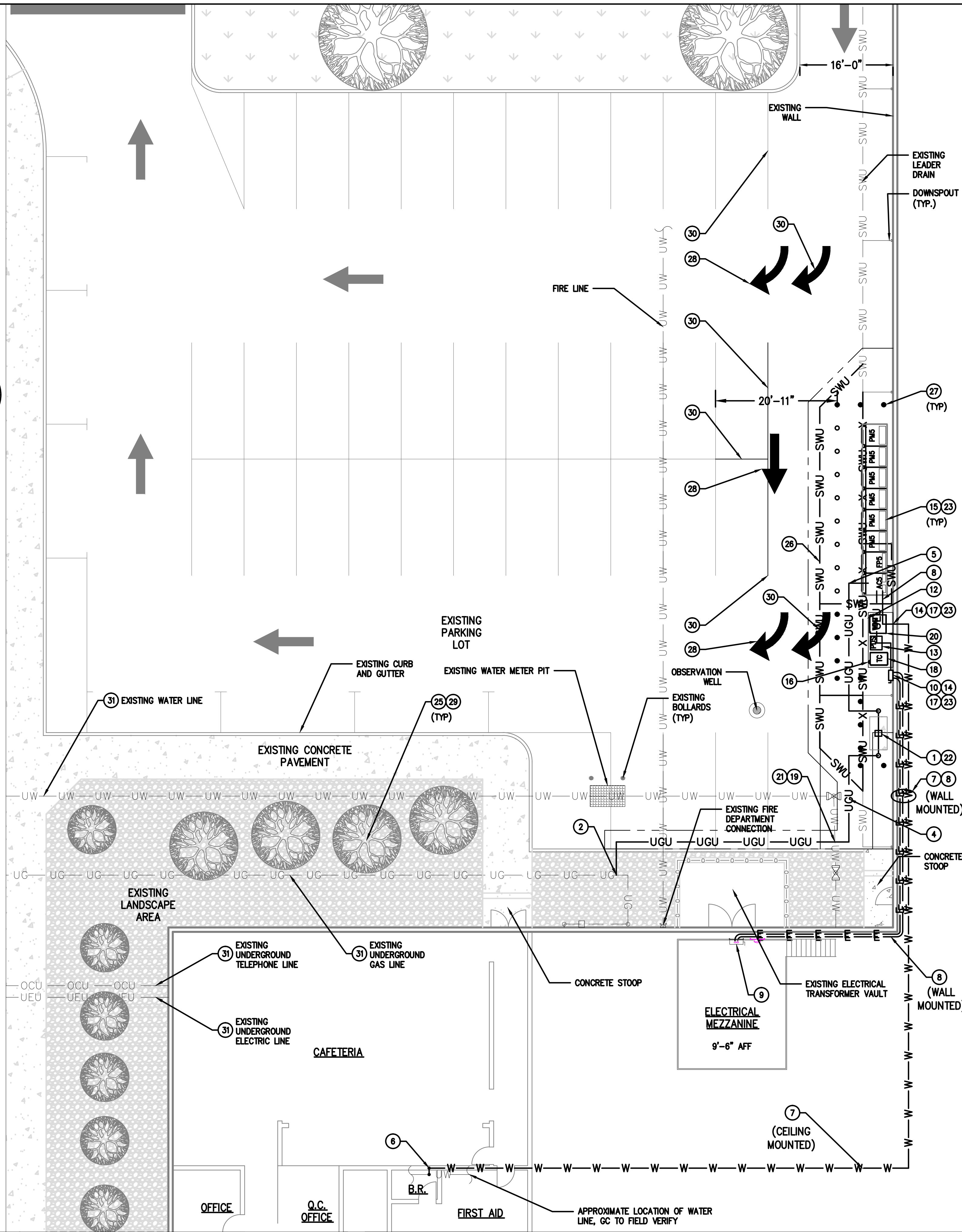
3
C1.1



DIMENSION PLAN

SCALE: 1" = 5'

2
C1.1



SITE PLAN

SCALE: 1" = 10'

1
C1.1



PRODUCTION CONTROL

GENERAL NOTES

- CLEAN AND PRIME ALL NEW WIRE MOUNTED PIPING AND CONDUIT. PIPING AND CONDUIT SHALL BE PAINTED WITH EXTERIOR GRADE PAINT TO MATCH EXISTING.
- CONDUITS AND PIPES MOUNTED TO BUILDING WALL SHALL BE SUPPORTED AS PER LOCAL CODE, RUN AT HEIGHT ABOVE DOORWAYS, AND STAND OFF WALL TO AVOID EXISTING CONDUITS AND PIPES.
- SLOPE LINES SHOWN ARE APPROXIMATE AND INTENDED TO SHOW THE GENERAL DIRECTION OF WATER RUN OFF; SLOPE LINES ARE DRAWN PER VISUAL SURVEY OF SURROUNDING AREA.

REFERENCE SHEET NOTES

- NEW UTILITY PROVIDED AND INSTALLED GAS METER & REGULATOR ASSEMBLY WITH SHUT-OFF VALVE. CONTRACTOR SHALL PROVIDE PAD PER DETAILS IF REQUIRED BY UTILITY COMPANY. COORDINATE ALL CONNECTIONS WITH GAS UTILITY. MAINTAIN MINIMUM 3' CLEARANCE FROM ALL IGNITION SOURCE.
- NEW UNDERGROUND GAS SERVICE TAP BY UTILITY COMPANY. CONTRACTOR SHALL PERFORM COMPACTION AND MATCH EXISTING SURFACE AND GRADE. CONTRACTOR TO COORDINATE GAS PIPE, SIZING AND INSTALLATION REQUIREMENTS WITH UTILITY COMPANY.
- NOT USED.
- NEW GAS PIPE BETWEEN THE NEW GAS TAP AND NEW UTILITY MSA SHALL BE INSTALLED BY THE UTILITY COMPANY. CONTRACTOR TO COORDINATE SIZE AND TRENCHING REQUIREMENTS WITH THE UTILITY COMPANY.
- NEW GAS PIPE SHALL BE FURNISHED & INSTALLED BY THE CONTRACTOR. REFER TO GAS RISER DETAIL FOR ADDITIONAL REQUIREMENTS.
- TAP EXISTING WATER LINE AT NEAREST ACCESSIBLE LOCATION IN BUILDING WITH A LOCAL SHUT-OFF VALVE. CONTRACTOR TO ENSURE MINIMUM PRESSURE OF 35 PSF. REFER TO DOMESTIC WATER CONNECTION DETAIL FOR ADDITIONAL REQUIREMENTS.
- NEW WATER PIPE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. REFER TO WATER RISER DETAIL FOR ADDITIONAL REQUIREMENTS.
- NEW ELECTRICAL CONDUIT & WIRES FROM NEW ES UNIT TO NEW PDS TO NEW DISCONNECT WITH FINAL TERMINATION AT EXISTING SWITCHGEAR.
- APPROXIMATE LOCATION OF EXISTING UTILITY ELECTRIC METER. REFER TO ELECTRICAL SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.
- NEW BLOOM PROVIDED, CONTRACTOR INSTALLED, DISCONNECT SWITCH. MOUNT TO WALL PER MANUFACTURER AND UTILITY SPECIFICATIONS. ENSURE LOCATION MEETS ALL REQUIRED N.E.C. CLEARANCES. PROVIDE MODEL NUMBER ON THE OUTSIDE OF THE FRONT PANEL.
- CONTRACTOR SHALL TERMINATE ELECTRIC FEEDER AS SHOWN. REFER TO ELECTRICAL SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.
- CONTRACTOR SHALL PROVIDE TWO 10' COPPER GROUNDING RODS TO BE PLACED 6' APART MINIMUM. REFER TO ELECTRICAL SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.
- NEW POWER DISTRIBUTION SECTION. CONDUIT STUB-UP LOCATIONS PER ELECTRICAL CONDUIT DETAILS.
- MOUNT NEW CONDUIT/PIPE TO EXTERIOR WALL. COORDINATE EXACT ROUTING WITH CUSTOMER REPRESENTATIVE IN THE FIELD. REFER TO WALL MOUNTING DETAIL FOR ADDITIONAL REQUIREMENTS.
- NEW BLOOM ENERGY SERVER. REFER TO BLOOM STANDARD INSTALLATION DRAWING SET FOR ADDITIONAL ENERGY SERVER DETAILS.
- FACTORY WIRED ENERGY SERVER EMERGENCY POWER-OFF SWITCH (EPO).
- CONTRACTOR SHALL CORE CONDUIT AND/OR PIPE THROUGH WALL. SCAN WALL PRIOR TO CORING TO AVOID COLLATERAL DAMAGE TO EXISTING PLUMBING AND WIRING. REFER TO WALL PENETRATION DETAIL FOR ADDITIONAL REQUIREMENTS.
- NEW TELEMETRY CABINET WITH FACTORY WIRED CLEAN ENERGY SERVER EMERGENCY POWER-OFF SWITCH. CONDUIT STUB-UP LOCATIONS PER PIPE PLAN AND DETAILS & ELECTRICAL CONDUIT DETAILS.
- CONTRACTOR SHALL HAND DIG TRENCHES WHERE THEY CROSS EXISTING UTILITIES. REFER TO UNDERGROUND/TRENCH CONDUIT AND PIPING DETAIL FOR ADDITIONAL REQUIREMENTS.
- NEW WATER DEIONIZATION MODULE. PIPE AND CONDUIT STUB-UP LOCATIONS PER PIPE PLAN & DETAILS & ELECTRICAL CONDUIT DETAILS.
- PROTECT EXISTING UNDERGROUND UTILITY LINES FROM DAMAGE WHEN CROSSING WITH NEW UNDERGROUND UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED LINES.
- CONTRACTOR SHALL PROVIDE NEW CONDUIT AND CABLE FROM NEW UTILITY GAS MSA TO CUSTOMER MPOE FOR UTILITY BILLING. REFER TO BLOOM ENERGY PRODUCT INSTALLATION DRAWINGS FOR CONNECTION REQUIREMENTS.
- CONTRACTOR SHALL TRANSITION ALL ABOVEGROUND NEW LINES TO UNDERGROUND TOWARD ANCILLARY EQUIPMENT. ABOVE GROUND UTILITIES SHALL BE PROTECTED AS NECESSARY, THEN ROUTED UNDERGROUND TO EQUIPMENT STUB-UP LOCATIONS PER MECHANICAL DETAIL.
- PROVIDE "DANDY SACK" OR EQUAL WITH OUTFLOW PORTS AT STORM DRAIN INLET. REFER TO EROSION CONTROL DETAIL FOR ADDITIONAL REQUIREMENTS.
- NO TREE SHALL BE REMOVED OR DAMAGE DURING CONSTRUCTION.
- REROUTE LEADER DRAIN AROUND ENERGY SERVER ±85 LF OF PVC SCH 80. MAINTAIN 0.5% MIN.
- NEW BOLLARD (TYPICAL), TYPE, SIZE, AND LOCATIONS PER PLAN AS SHOWN. ENSURE SLEEVE IS FLUSH WITH GRADE AND NO ANGLES OR HOOKS EXIST THAT IMPEDE FORKLIFT ACCESS. (12 STANDARD, 8 REMOVABLE).
- NEW PAVEMENT MARKINGS.
- CONTRACTOR SHALL PROVIDE TREE PROTECTION AS NEEDED. REFER TO TREE PROTECTION DETAIL FOR ADDITIONAL REQUIREMENTS.
- REMOVE EXISTING PAVEMENT MARKINGS. TOTAL 3 PARKING SPACE LOSS.
- THE LOCATION OF EXISTING UTILITIES IS SHOWN FOR THE CONTRACTOR'S REFERENCE. EXACT LOCATION, DEPTH AND SIZE OF ALL EXISTING UTILITIES IS NOT KNOWN. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES NOT SHOWN ON THESE DRAWINGS.



1299 ORLEANS DRIVE
SUNNYVALE, CA 94089
PROPRIETARY AND CONFIDENTIAL
BLOOM ENERGY CORPORATION ALL RIGHTS RESERVED. THIS DOCUMENT IS FOR REFERENCE ONLY AND MAY NOT BE USED WITHOUT THE WRITTEN PERMISSION OF BLOOM ENERGY. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT PERMISSION OF BLOOM ENERGY IS PROHIBITED.



3 Executive Drive, Suite 150
Somerset, NJ 08873
t: 732 537 0811

CUSTOMER SITE
STANLEY BLACK & DECKER
65 SCOTT SWAMP ROAD
FARMINGTON, CT 06032



REVISION HISTORY		
REV	REVISION ISSUE	DATE

DESIGNED BY JIA-JENG CHU	DATE 10/26/2016
DRAWN BY JIA-JENG CHU	DATE 10/26/2016
REVIEWED BY RICHARD PROCANIK	DATE 10/26/2016
APPROVED BY GREENBERGFARROW	DATE

SHEET TITLE DETAILED SITE PLAN	
DRAWING NUMBER C1.1	BLOOM DOCUMENT DOC-1007342
THIS DRAWING IS 24" X 36" AT FULL SIZE SITE ID: LMD000.0 SHEET XX OF 11	

Exhibit 3



STATE OF CONNECTICUT

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
PUBLIC UTILITIES REGULATORY AUTHORITY
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051

**DOCKET NO. 12-02-09 PETITION OF BLOOM ENERGY CORPORATION FOR A
DECLARATORY RULING THAT ITS SOLID OXIDE FUEL
CELL ENERGY SERVER WILL QUALIFY AS A CLASS I
RENEWABLE ENERGY SOURCE**

September 12, 2012

By the following Directors:

Arthur H. House
John W. Betkoski, III

DECISION

I. INTRODUCTION

By Petition dated February 14, 2012, pursuant to Section 4-176 in the General Statutes of Connecticut (Conn. Gen. Stat.) and Section 16-1-113 in the Regulations of Connecticut State Agencies, Bloom Energy Corporation requests that the Public Utilities Regulatory Authority (Authority) issue a declaratory ruling that its solid oxide fuel cell energy server qualifies as a Class I renewable energy source.

II. PETITIONER'S EVIDENCE

Bloom Energy Corporation (Bloom) has commercialized a scalable, modular fuel cell using Bloom's patented solid oxide fuel cell (SOFC) technology. A fuel cell is a device that uses a fuel and oxygen to create electricity by an electrochemical process. A single fuel cell consists of an electrolyte and two catalyst-coated electrodes (an anode cathode). Fuel cells are generally categorized by the type of electrolyte used. Petition, pp. 2 and 3.

Each Bloom Energy Server consists of thousands of Bloom's patented SOFCs. Each fuel cell is a flat, solid ceramic square capable of producing at least 25 watts. In an energy server, Bloom "sandwiches" the SOFCs between metal interconnect plates into a fuel cell "stack." Bloom aggregates multiple fuel cell stacks together into a "power module," and then multiple power modules, along with a common fuel input and electrical output, are assembled as a complete energy server fuel cell. Id., p. 3.

The Bloom Energy Server converts the chemical energy contained in fuel, such as natural gas, into electricity at an efficiency of approximately 50% - 60% (lower heating value net AC) without any combustion or multi-stage conversion loss. Fuel entering the energy server is processed using a proprietary catalytic method to yield a reformat gas stream, and the gaseous product and preheated air are introduced into the fuel cell stacks. Within the stacks, ambient oxygen reacts with the fuel to produce direct current (DC) electricity. The DC power produced by the energy server system is converted into 480-volt AC power using an inverter, and delivered to the host facility's electrical distribution system. Id.

SOFCs operate at very high temperatures, obviating the need for expensive metal catalysts. With low cost ceramic materials, and extremely high electrical efficiencies, SOFCs can deliver attractive economies without relying on combined heat and power. Id.

Bloom Energy Servers are a fraction of the size of a traditional base load power source, with each server occupying a space similar to that of a parking space. This small, low-impact, modular form of base load power does not pose the environmental challenges associated with a traditional base load power plant, significantly reducing environmental impacts. Moreover, Bloom's innovative design requires only an initial input of 120 gallons of water per 100 kW, after which no additional water is consumed during normal operation. Id., pp. 3 and 4.

Bloom Energy Servers deliver significant environmental benefits over conventional base load technologies. In addition to significant CO₂ reductions due to its high efficiency, the energy server emits virtually no NO_x, SO_x, or other smog forming particulates since the conversion of gas to electricity in a Bloom Energy Server is done through an electrochemical reaction rather than combustion. Id., p. 4.

III. AUTHORITY ANALYSIS

Conn. Gen. Stat. §16-1(a)(26) defines a Class I renewable energy source as:

(A) energy derived from solar power; wind power; a fuel cell; methane gas from landfills; ocean thermal power; wave or tidal power; low emission advanced renewable energy conversion technologies; a run-of-the-river hydropower facility provided such facility has a generating capacity of not more than five megawatts, does not cause an appreciable change in the river flow, and began operation after the effective date of this section; or a biomass facility, including, but not limited to, a biomass gasification plant that utilizes land clearing debris, tree stumps or other biomass that regenerates or the use of which will not result in a depletion of resources, provided such biomass is cultivated and harvested in a sustainable manner and the average emission rate for such facility is equal to or less than .075 pounds of nitrogen oxides per million BTU of heat input for the previous calendar quarter, except that energy derived from a biomass facility with a capacity of less than five hundred kilowatts that began construction before July 1, 2003, may be considered a Class I renewable energy source, provided such biomass is cultivated and harvested in a sustainable manner; or (B) any electrical generation, including distributed generation, generated from a Class I renewable energy source.

Based on Bloom's assertions, the Authority finds that its Bloom Energy Server qualifies as a Class I renewable energy source "fuel cell" as defined in Conn. Gen. Stat. §16-1(a)(26)(A).

The Authority has created an electronic application process for generation owners to apply for a Connecticut Renewable Portfolio Standards registration. The application is available on the Authority's website at the web address <http://www.ct.gov/pura>. The application should be submitted electronically along with a single hard-copy filing. While the Authority concludes in this Decision that the Bloom Energy Server would qualify as a Class I renewable energy source pursuant to Conn. Gen. Stat. §16-1(a)(26), Bloom must still apply for registration of the aforementioned system once the facility becomes operational and is registered in the New England Generation Information System.

IV. CONCLUSION

Based upon the project as described herein, the Authority finds that, as proposed, the Bloom Energy Server would qualify as a Class I renewable energy source. However, since the energy server is not yet operational, it should apply for Class I registration once it begins operations.

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to requirements of the Americans with Disabilities Act. Any person with a disability who may need information in an alternative format may contact the agency's ADA Coordinator at 860-424-3194, or at deep.hrmed@ct.gov. Any person with limited proficiency in English, who may need information in another language, may contact the agency's Title VI Coordinator at 860-424-3035, or at deep.aaoffice@ct.gov. Any person with a hearing impairment may call the State of Connecticut relay number – 711. Discrimination complaints may be filed with DEEP's Title VI Coordinator. Requests for accommodations must be made at least two weeks prior to any agency hearing, program or event.

**DOCKET NO. 12-02-09 PETITION OF BLOOM ENERGY CORPORATION FOR A
DECLARATORY RULING THAT ITS SOLID OXIDE FUEL
CELL ENERGY SERVER WILL QUALIFY AS A CLASS I
RENEWABLE ENERGY SOURCE**

This Decision is adopted by the following Directors:

Arthur H. House

John W. Betkoski, III

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Public Utilities Regulatory Authority, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.



Kimberley J. Santopietro
Executive Secretary
Department of Energy and Environmental Protection
Public Utilities Regulatory Authority

September 12, 2012

Date

Exhibit 4



LOCATION OF PROPOSED FACILITY VIEW FROM EAST TO WEST



LOCATION OF PROPOSED FACILITY VIEW FROM WEST TO EAST



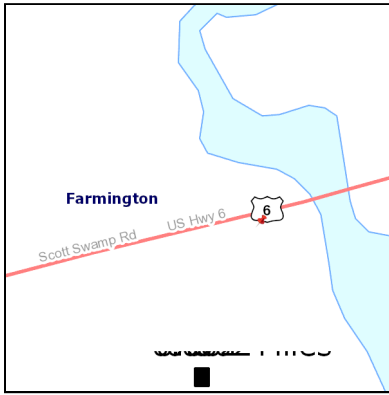
EXISTING PARKING AREA IN FRONT OF PROPOSED FACILITY VIEW FROM NORTH TO SOUTH



EXISTING GAS METER AND ELECTRICAL TRANSFORMER VAULT: SOUTH TO PROPOSED FACILITY

Exhibit 5

Coastal Boundary Map



- Address Candidates
- Streets
 - Interstate
 - US Route
 - State Route
 - Ramp
 - Street
- CT Town Line
 - State Boundary
 - State Boundary - LIS
 - Town Boundary
 - Coastline
- MA, NY, RI Town Line
 - State
 - Town
 - Shoreline
- CT Town Name
- MA, NY, RI Town Name
- State Line
 - State
 - Coastline
- Waterbody Line 7
 - Water
 - Dam
- Waterbody Poly 7
 - Water
- Coastal Boundary

65 scott swamp road (1)

Address Candidates (1)

Score	Side	X	Y	Ref_ID	Pct_along	LeftFrom	LeftTo	RightFrom	RightTo	PreDir	PreType	StreetName	StreetType	SufDir	LeftZone	RightZone
66	L	972531.8178869953	817339.5391753569	111435	16.66666603088379	63	75	68	78			SCOTT SWAMP	RD		FARMINGTON	FARMINGTC

Exhibit 6



Energy Server 5

Clean, Reliable, Affordable Energy



CLEAN, RELIABLE POWER ON DEMAND

The Energy Server 5 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 Energy Server 5 actively communicates with Bloom Energy's network operations centers so system performance can be monitored 24 hours per day, 365 days per year.

INNOVATIVE TECHNOLOGY

Utilizing solid oxide fuel cell (SOFC) technology first developed for NASA's Mars program, the Energy Server 5 produces clean 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 Energy Server 5, 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 a small footprint and sleek design, the Energy Server 5 is the most deployable fuel cell solution on the market.

CONTROLLED AND PREDICTABLE COST

By providing efficient on-site power generation, the economic and environmental benefits are central to the Energy Server 5 value proposition. Bloom Energy customers can lock in their long term energy costs and mitigate the risk of electricity rate increases. The Energy Server 5 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, NSA, 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

Energy Server 5

Technical Highlights (ES5-AA1AA0)	
Outputs	
Nameplate power output (net AC)	262.5 kW
Base load output (net AC)	250 kW
Electrical connection	480 V, 3-phase, 60 Hz
Inputs	
Fuels	Natural gas, directed biogas
Input fuel pressure	10-18 psig (15 psig nominal)
Water	None during normal operation
Efficiency	
Cumulative electrical efficiency (LHV net AC)*	65-53%
Heat rate (HHV)	5,811-7,127 Btu/kWh
Emissions	
NOx	< 0.01 lbs/MWh
SOx	Negligible
CO	<0.05 lbs/MWh
VOCs	< 0.02 lbs/MWh
CO ₂ @ stated efficiency	679-833 lbs/MWh on natural gas; carbon neutral on directed biogas
Physical Attributes and Environment	
Weight	14.3 tons
Dimensions (variable layouts)	14'9" x 8'9" x 7' or 29'6" x 4'5" x 7'5"
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 FC 1-2014	
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	

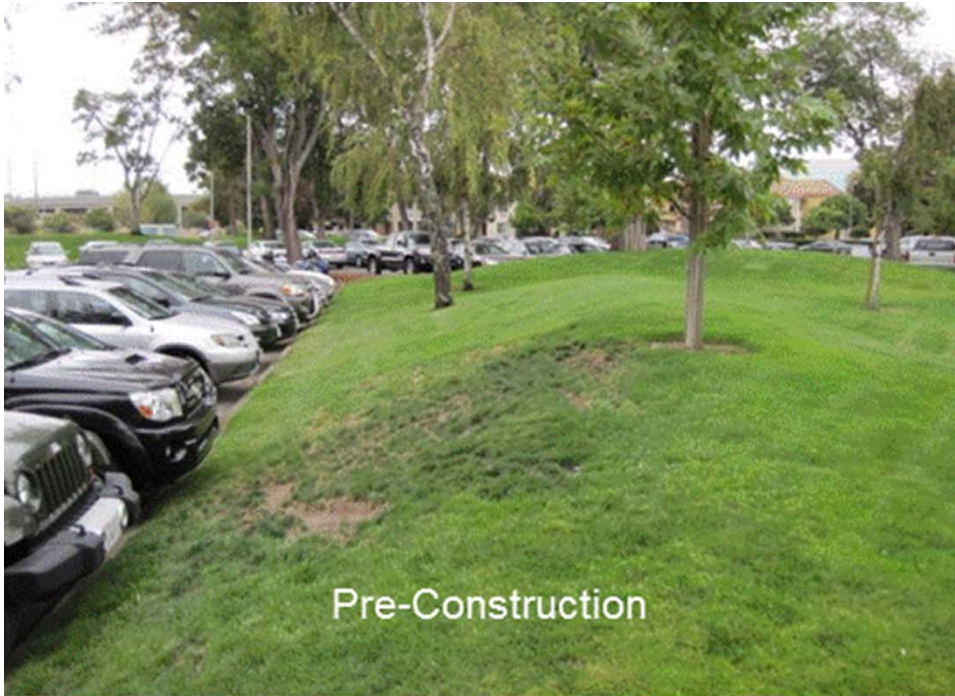
* 65% LHV efficiency verified by ASME PTC 50 Fuel Cell Power Systems Performance Test



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

Bloom Energy Server





Pre-Construction



Install Preparations – Trenching & Underground Utility



Set Pads



Site Completion

Bloom Energy Server Installation



Representative Installations



Exhibit 7



Fire Prevention and Emergency Planning

Copyright © 2011. Unpublished Work of Bloom Energy. All Rights Reserved. This work is an unpublished work and contains confidential, proprietary, and trade secret information of Bloom Energy. No part of this work may be practiced, performed, copied, distributed, revised, modified, translated, abridged, condensed, expanded, collected, or adapted without the prior written consent of Bloom Energy. Any use or exploitation of this work without authorization could subject the perpetrator to criminal and civil liability.

Bloom Energy Corporation, 1299 Orleans Drive, Sunnyvale, CA 94089 USA

Table of Contents

1. Fire Prevention and Emergency Planning Overview
2. Fuel Cell Installation Safety Features
3. Emergency Notification Procedures
4. Fire and Smoke Procedures
5. Medical Emergency Procedures
6. Materials Release Procedures
7. Natural Disasters and Severe Weather
 - 7.1 Earthquake
 - 7.2 Flood
8. Utility Outage
9. Good Housekeeping and Maintenance
 - 9.1 Good Housekeeping
 - 9.2 Maintenance
10. Training

1. FIRE PREVENTION AND EMERGENCY PLANNING OVERVIEW

The following document is provided only as a guide to assist you in complying with national and local codes and requirements, as well as to provide other helpful information. It is not intended to supersede the requirements of any standard. You should review the standards for particular requirements that are applicable to your individual situation, and make adjustments to this program that are specific to your company. You will need to add information relevant to your facility in order to develop an effective, comprehensive program.

2. FUEL CELL SYSTEM INSTALLATION SAFETY FEATURES

The fuel cell system has redundant safety features and in-system checks to ensure that the system will not harm certified technicians or bystanders near the unit. While the actual fuel cells operate at high temperatures, these components do not move, and are contained within many layers of insulation. During normal operation, the unit is cool to the touch and operates quietly.

The fuel cell system is controlled electronically and has internal sensors that continuously measure 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 Monitoring and Control Center (RMCC) operator can also remotely initiate any emergency sequence. An Emergency Stop alarm condition initiates an automatic shutdown sequence that puts the fuel cell 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.

If you have to shut down your fuel cell system right away—for example, in case of a building fire or electrical hazard—three shutoff controls are installed at your facility external to the system. The locations of these three controls should be known to your facilities manager before operation, and should be noted on your facility diagram that you created with your Bloom Energy account manager. The three shutoffs are the **EPO button**, the **electrical disconnect**, and the **natural gas shutoff valve**.

- An **Emergency Power Off (EPO) Button** cuts all power to all systems and stops them from exporting power to your building. All natural gas flow is also stopped within the systems. (The EPO button is on the front/side of the EDM, if an EDM is installed.) Lift the protective cover and break the glass seal that covers the button with the attached hammer. After the glass seal is broken, the shutdown sequence will automatically begin.



Figure 1: Emergency Power Off Button

- An **electrical disconnect** manually disconnects systems from the grid if needed. Pressing the EPO button should already stop any power transmission, but it does not hurt the systems to also open this disconnect if you believe it is needed. The location of this disconnect will vary, however it is typically located near the point of interconnection where the wires from the fuel cell installation meet the facility's electrical framework. This may be inside your facility's electrical room, or if the fuel cell installation is near the electrical room, it may be found within the switchgear that Bloom Energy installs. This location of this disconnect is shown on the Site Map (see below) and is labeled "(name of electrical utility) Lockable Visible Generator Disconnect Switch".



Figure 2: Electrical Disconnect

- A **manual natural gas valve** shuts down all natural gas to the system. If the valve operator is perpendicular to the pipe, the valve is shut. If it is parallel with the pipe, the valve is open.



Figure 3: Manual Natural Gas Valve

Site map:

- An overhead site map showing the location of all safety features will be posted throughout the fuel cell installation
- Electronic copies are available to you for use in your site planning

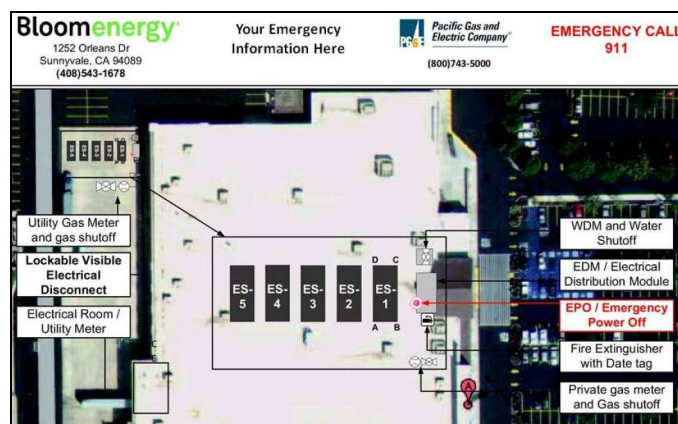


Figure 4: Sample Site Map

Manual controls:

- Clearly marked emergency stop button labeled “Fuel Cell Emergency Shut Down” located at site
- Two manual fuel shutoff valves outside the system, and two isolation valves inside the system

Fire hazard mitigation:

- System is plumbed directly to utility-provided natural gas
- If system input gas pressure is compromised, a pressure switch triggers an emergency system shutdown and fuel input is isolated
- System does not use fuel compressors or pumps
- System has virtually no stored fuel (internal capacity is < 5 scf)

Electrical hazard and mitigation:

- System operates at 480V
- Signs inside the system warn of the risk of electric shock
- System has backfeed protection
- System inverter prevents grid backfeed during a power outage

Mechanical hazard and mitigation:

- Finger/hand guard protection is provided on all fans
- All moving parts are located behind secured doors

Material hazard mitigation:

- Desulfurizer bed (to remove fuel impurities) are fully enclosed
- Maintained and serviced by licensed vendors

3. EMERGENCY NOTIFICATION PROCEDURES

Life-Threatening Emergencies

To report life-threatening emergencies, immediately call:

Fire:	911
Ambulance:	911
Police:	911

Conditions that require automatic emergency notification include:

- Unconscious Victim
- Seizure
- Major Trauma
- Chest Pains
- Difficulty Breathing
- Flames

Non-Life-Threatening Emergencies

For non-life-threatening emergencies, report the incident to the local safety control center.

When you report an emergency, give the following information:

- Exact nature of the emergency (describe as clearly and accurately as possible).
- Exact location (i.e., address, building, floor, area, department, etc.).
- Telephone number from which you are calling.
- Your full name.
- **Do not hang up**, as additional information may be needed.

To assist in any subsequent investigation or determination of corrective actions, it is recommended to record the following items as close to the incident time as possible:

- Summary of any violation

- Identification of responsible parties
- Identification of victims and witnesses
- Description of evidence
- Description of general conditions
- Description of any vehicles involved
- Narratives from witnesses
- Any photographs

4. FIRE OR SMOKE PROCEDURES

This section describes the procedures involving a fire or smoke. A major fire is one that requires the use of more than one fire extinguisher or takes more than one minute to extinguish.

If you discover a fire or smoke:

1. Activate the nearest fire alarm if not activated already.
2. Activate the fuel cell Emergency Stop if possible.
3. Shut off the fuel cell installation natural gas line if possible.
4. If the fire is small and does not pose an immediate risk to personal safety, you may attempt to extinguish it with a portable fire extinguisher **only if trained to do so**.
5. Avoid using water on electrical fires.
6. Report every fire, regardless of size, immediately. Smoke or the smell of smoke should be reported.
 - From a safe location dial **911**.
 - Report the incident to the local security safety center.

5. MEDICAL EMERGENCY PROCEDURES

This section describes the necessary procedures for injuries or illnesses that may occur under extreme conditions.

A serious injury can be life-threatening and will require immediate medical attention. Injuries can include head injuries, spine injuries, broken bones, heart attack, stroke, loss of consciousness, excessive bleeding, chemical exposure, etc.

A non-serious injury is not immediately life-threatening but may still require the attention of a medical doctor. These can include headaches, nausea, itching, cuts, burns, etc.

Life-Threatening Medical Emergency

1. Remain calm.
2. Immediately dial 911.
3. Report the incident to local security safety center.
4. Do not move the victim unless it is absolutely necessary.
5. Call out for personnel trained in first aid and/or CPR which may include Building Evacuation or Emergency Response team members.

6. Ask someone to bring the area first aid kit and Automated External Defibrillator.
7. Assist if capable or asked to do so.

Non-Life-Threatening Medical Emergency

1. Remain calm.
2. Report the incident to the local security safety center.
3. Do not move the victim unless it is absolutely necessary.
4. Call out for personnel trained in first aid.
5. Ask someone to bring the area first aid kit.
6. If the victim requires further medical attention, then direct them to the nearest approved medical clinic or hospital – Contact Security or Human Resources for assistance if needed.
7. The injured employee’s supervisor/manager is responsible for ensuring injury forms are properly filled out. Complete the forms within 24 hours of incident and submit to the injury reporting system for follow-up. Follow company protocols.

6. MATERIALS RELEASE PROCEDURES

The fuel cell system does not pose a hazard to health or environment. However, some internal materials when released, may pose a irritation risk to people and a possible risk of fire if not properly handled. This section was designed to address potential material release events:

In case of a material release that poses a direct threat to health, safety, or the environment:

1. Report the incident to local safety/security office.
2. If extremely life-threatening immediately dial **911** followed with a call to Security.
3. Contain the spill.
4. Evacuate the area or building if the material release is determined to be life-threatening.

In the event of an unknown indoor smell or odor, report the incident to authorities responsible for HAZMAT and spills.

7. NATURAL DISASTERS AND SEVERE WEATHER

7.1 Earthquake

This section provides information and procedures for earthquake emergencies.

The fuel cell system is designed to automatically shut off if the natural gas supply is compromised.

The natural gas supply line has an external, manual shut-off valve that should be activated if it is safe to do so. This valve will be labeled, “Notice – Fuel Cell Gas Shut

Off". The natural gas line will be labeled with the word "gas" on a yellow background with an arrow pointing in the direction of flow.

The nearby Emergency Stop can be activated to stop the flow of fuel and power to/from the fuel cell system.

A Bloom Energy Field Engineer will validate site safety and system operation during/after severe weather as necessary.

7.2 Flood

The fuel cell system support pad is designed to divert water flow. However, if flooding conditions exist, or threaten to exist due to heavy rainfall, creek bank overflows, or pipe breakage, then immediately report the incident to the local safety/security office.

Do not use the fuel cell power system if any part has been under water. If it is safe to reach the Emergency Power Off button for the site without entering the water, stop all systems until a Bloom Energy representative can assess the site.

Precautions to follow after a flood:

- Stay out of flooded areas. Flooded areas remain unsafe. Entering a flooded area places you at risk.
- Notify Bloom Energy. A Bloom Energy Field Engineer will validate site safety and system operation during/after severe weather as necessary

8. UTILITY OUTAGE

The fuel cell system is operated in "Grid-Parallel" mode. If utility provided power is lost for any reason, the fuel cell system will go "off-line". The fuel cell system will remain in stand-by mode until it automatically senses the utility grid has been restored. If utility gas is shut down, the fuel cell system will begin to shut down completely.

The Bloom Energy Remote Monitoring Control Centers monitor the fuel cells 24 hours per day and will be alerted to utility grid interruptions via its controls software. A Field Service Engineer will be dispatched to restart the fuel cell system if necessary. Customer personnel should NOT attempt to start up or operate the fuel cell system.

Before a Planned Outage

- Notify the Bloom Energy Remote Monitoring Control Center at 1-408-543-1678 at least 24 hours before planned outage.
- Bloom Energy Remote Monitoring Engineers will reduce power generated by the fuel cell system and take the fuel cell off-line.
- Abrupt fuel cell system shutdowns may cause significant system damage.

During a Utility Power Loss

- The fuel cell system will automatically go off-line.
- The Bloom Energy Remote Monitoring Control Centers will monitor the fuel cell system.
- Bloom Energy Field Service will be dispatched to start up the fuel cell system as necessary.
- If the fuel cell system has been automatically shut down and utility power is restored, there will be no impact to building power delivery: primary power will come from the utility rather than the fuel cells.

9. GOOD HOUSEKEEPING AND MAINTENANCE

9.1 Good Housekeeping

Although extremely unlikely, to minimize the risk of fire and any incidents, Facility Managers should take the following precautions around the fuel cell installation:

- What to do if you smell gas:
 - Do not try to light any appliance
 - Do not touch any electrical switch; do not use any phone in the area
 - Leave the area immediately
 - Immediately call your gas supplier. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department
- Notify Bloom Energy Remote Monitoring Control Center at 1-408-543-1678 of any condition that would impair the safety of the fuel cell installation so that mitigation measures could be determined and placed into effect.
- Prohibit smoking within the area of the fuel cell installation. Bloom Energy will furnish No Smoking signs for the area.
- Ensure only Bloom Energy Service Providers are permitted access inside the system.
- Keep the area around the fuel cell installation clear for ten feet in all directions, for safety and ease of maintenance.
- Keep the area around the fuel cell power system clear and free of combustible materials, gasoline, and other flammable vapors and liquids.
- Shut the system down and call Bloom Energy immediately if you suspect a fuel line rupture.
- **Never enclose an operating system** in a tarp, tent, shed, or other structure that would allow air to become trapped. This system runs on natural gas, and produces trace amounts of CO and CO₂. The amounts of these gases are safe for normal outdoor operation but could gather in an enclosed place.
- Do not block or obstruct air openings on the fuel cell power system. This system requires air flow in order to operate.

- Do not use this fuel cell power system if any part has been under water. Immediately call qualified service personnel to inspect the fuel cell power system and to replace any functional part which has been under water.
- Please contact Bloom Energy at 408-543-1678 with as much advance notice as possible if you plan, detect, or suspect a prolonged Internet outage.
- The Bloom Energy Field Service team will periodically clean the equipment; do not spray with pressurized hoses.

9.2 Maintenance

Your site has specific Field Service personnel assigned to it for both routine maintenance and troubleshooting. Your site project manager will introduce you to the designated Bloom Energy Field Service team assigned to your site prior to operation.

Bloom Energy Field Service personnel are trained in state Safety Law. They are trained in all the procedures required for the fuel cell installation, and their toolkit includes all the safety equipment required to work around the fuel components and high voltage in our system (480VAC).

Bloom Energy also requires its employees to follow all necessary safety precautions, including:

- Every time a Field Service technician arrives at a site for the first time and opens a service panel, the technician will use a leak detector to determine whether there is any gas buildup in the system and determine that it is safe to work on it.
- Whenever a Field Service technician is removing and replacing a component on a fuel or exhaust line, the technician must keep a CO detector nearby to make sure that no CO is present in the line even after the system has been shut down.

The Field Service team expects to conduct quarterly and yearly preventative maintenance for certain types of consumable or cleanable components such as replacement of air filters, water filters, and desulfurizer beds. Other maintenance will be performed as required. During such times, inspections for any hazards will be conducted including quarterly fire extinguisher inspection (if applicable).

10. TRAINING

Prior to system startup, a Bloom Energy representative will provide training on the fuel cell installation to include the location and operation of safety features as well as actions to take during emergencies. We desire this training to provide lasting value and are more than happy to work with you to customize the experience to suit your needs.

Exhibit 8

Notice and Service List Pursuant to Connecticut Agencies Regs. § 16-50j-40(a)

Abutter Properties						
Map ID #	Site Address	Owner Name	Address	City	State	Zip
139 5	6 Hyde Rd	UFCW Local 919	6 Hyde Road	Farmington	CT	06032
139 9	74 Scott Swamp Rd	Winding River LLC	785 Middle Street	Bristol	CT	06010
139 10A	8790 Scott Swamp Rd	State of Connecticut	79 Elm Street	Hartford	CT	06106
139 25A1	9190 Main St	Town of Farmington	1 Monteith Drive	Farmington	CT	06032
139 41B	21 Hyde Rd	PD & SD LLC	21 Hyde Rd, Unit 1-A	Farmington	CT	06032
139 41B	21 Hyde Rd	Pinnacle Hyde Road LLC	4 Preston Court	Bedford	MA	01730
139 41B	21 Hyde Rd	Rubino LLC	P.O. Box 643	Farmington	CT	06034
139 42	8773 Scott Swamp Rd	Stanley Access Technologies	P.O. Box 1029	Dublin	PA	18917
149 37	8384 Hyde Rd	Ditomamaso Associates LLC	21 Hyde Road	Farmington	CT	06032

Notice and Service List Pursuant to Connecticut Agencies Regs. § 16-50j-40(a)

Municipal and Elected Officials						
Last Name	First Name	Title	Address	City	State	Zip
Eagen	Kathleen	Town Manager Town of Farmington	1 Monteith Drive	Farmington	CT	06032
Warner	William	Town Planner Town of Farmington	1 Monteith Drive	Farmington	CT	06032
Blumenthal	Richard	U.S. Senator	706 Hart Senate Office Building	Washington	DC	20510
Murphy	Christopher	U.S. Senator	136 Hart Senate Office Building	Washington	DC	20510
Esty	Elizabeth	U.S. Representative	1 Grove Street, Suite 600	New Britain	CT	06053
Becker	Brian	State Representative	Legislative Office Building Room 4009	Hartford	CT	06106
Demiccio	Mike	State Representative	Legislative Office Building Room 4000	Hartford	CT	06106
Bye	Beth	State Senator	Legislative Office Building Room 2700	Hartford	CT	06106
Gerratana	Terry	State Senator	Legislative Office Building Room 3000	Hartford	CT	06106
Jepsen	George	Connecticut Attorney General	55 Elm Street	Hartford	CT	06106
Klee	Rob	Commissioner Department of Energy and Environmental Protection	79 Elm Street	Hartford	CT	06106
Dykes	Katie	Chair Department of Public Utility Regulatory Authority	10 Franklin Square	New Britain	CT	06051
Pino	Raul	Commissioner Department of Public Health Protection	410 Capitol Avenue	Hartford	CT	06134
Merrow	Susan	Chair Council on Environmental Quality	79 Elm Street	Hartford	CT	06106

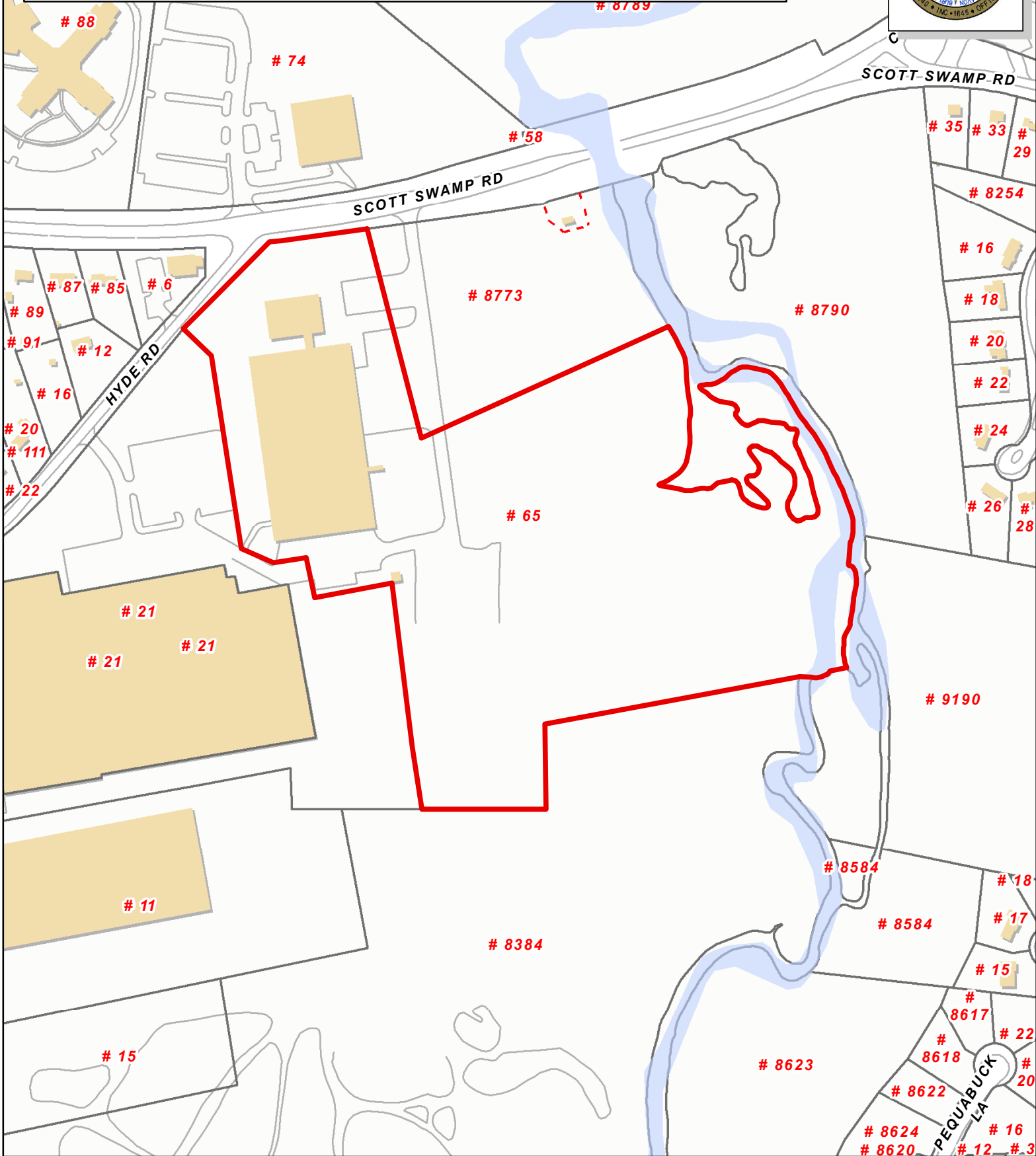
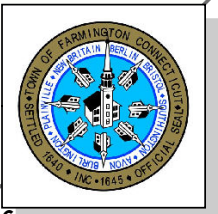
Reviczky	Steven	Commissioner Department of Agriculture	165 Capitol Avenue	Hartford	CT	06106
Barns	Benjamin	Secretary Office of Policy and Management	450 Capitol Avenue	Hartford	CT	06106
Redeker	James	Commissioner Department of Transportation	2800 Berlin Turnpike	Newington	CT	06111

Exhibit 9

Town of Farmington, Connecticut - Assessment Parcel Map

UNIQUE ID: 16950065

Address: 65 SCOTT SWAMP RD



Approximate Scale: 1 inch = 300 feet

Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Farmington and its mapping contractors assume no legal responsibility for the information contained herein.

Map Produced Sept 2016

Exhibit 10



November 29, 2016

VIA FIRST CLASS MAIL

RE: Petition for Bloom Energy, as Agent for Stanley Black and Decker, for the installation of one (1) new ES-5 Bloom Energy Servers solid oxide fuel cells which provide 200 Kw OF Customer-Side Distributed Resource at – 65 Scott Swamp Road, Farmington, Connecticut

Dear Ladies and Gentlemen:

Pursuant to Section 16-50-40 of the Connecticut Siting Council's (the "Council") regulations, we are notifying you that Stanley Black and Decker intends to file on or shortly after 12/05/16, a petition for declaratory ruling with the Council. The petition will request the Council's approval of the location and construction of an approximately 200 kilowatt Bloom Energy Corporation fuel cell facility and associated equipment (the "Facility"), located at the site of the Stanley Black and Decker building at 65 Scott Swamp Road, Farmington, Connecticut (the "Site"). Electricity generated but not consumed onsite will be exported to the electric grid. The Facility will be fueled by natural gas.

The proposed placement of the fuel cells will be located within the parking area near the northeast corner of the existing building. In total, the proposed Facility will be approximately 29 feet long, 4 feet wide, and 7 feet high.

If you have any questions regarding the proposed Facility, please contact the undersigned or the Council.

Respectfully,
Bloom Energy

A handwritten signature in black ink, appearing to read "Justin Adams".

Justin Adams
(860) 839-8373

justin.adams@bloomenergy.com



November 29, 2016

Town of Farmington
Planning and Zoning
1 Mountain Drive
Farmington, CT 06032

Attn: William Warner – Town Planner

RE: Bloom Energy Server Project
65 Scott Swamp Road – Stanley Black & Decker

Mr. Warner,

On behalf of Bloom Energy we would like to provide you with information pertaining to the proposed clean energy server installation project located at the Stanley Black & Decker facility.

This project proposes to install one (1) new Bloom Energy Server; a new class of distributed power generator which produces clean, reliable and affordable electricity at the customer site. The Bloom Energy Server contains solid oxide fuel cells which provide 200 kW of power, utilizing a non-combustive chemical process. The Clean Energy Server are mounted onto an approximately 29'-5" x 4'-3" concrete pad. Placement of the Clean Energy Server and related ancillary equipment is being proposed in an existing parking field at the northeast corner of the Stanley Black & Decker Building (please see attached site plan). The purpose of the proposed project is to replace a portion of the average baseload of the Stanley Black & Decker facility with a Class I renewable energy source and improve reliability of electrical systems and equipment.

The Bloom equipment has been designed in compliance with Underwriters Laboratories (UL) in addition to various safety standards and requirements. There are no harmful off-gases or byproducts that will be produced by this equipment.

Please note that the energy server is monitored 24 hours a day, 7 days a week by Bloom Energy's communications network in Sunnyvale, CA with a back-up monitoring station in India. In the unlikely event the system will require attention, the system can be remotely shut off by Bloom. Additionally, the equipment will have several means to shut down the energy server locally.

We are submitting to the Connecticut Siting Council within the next two weeks and wanted to give you an opportunity to see the plans in advance. We would be happy to discuss any comments you may have either by phone or in person. Keeping the lines of communication open is an important part of our work in your community. If you have questions about this work, please contact me,

Thank you,
Bloom Energy



Justin Adams
(860) 839-8373

justin.adams@bloomenergy.com



November 29, 2016

Town of Farmington
Town Manager
1 Mountain Drive
Farmington, CT 06032

Attn: Kathleen Eagen – Town Manger

RE: Bloom Energy Server Project
65 Scott Swamp Road – Stanley Black & Decker

Ms. Eagen,

On behalf of Bloom Energy we would like to provide you with information pertaining to the proposed clean energy server installation project located at the Stanley Black & Decker facility.

This project proposes to install one (1) new Bloom Energy Server; a new class of distributed power generator which produces clean, reliable and affordable electricity at the customer site. The Bloom Energy Server contains solid oxide fuel cells which provide 200 kW of power, utilizing a non-combustive chemical process. The Clean Energy Server are mounted onto an approximately 29'-5" x 4'-3" concrete pad. Placement of the Clean Energy Server and related ancillary equipment is being proposed in an existing parking field at the northeast corner of the Stanley Black & Decker Building (please see attached site plan. The purpose of the proposed project is to replace a portion of the average baseload of the Stanley Black & Decker facility with a Class I renewable energy source and improve reliability of electrical systems and equipment.

The Bloom equipment has been designed in compliance with Underwriters Laboratories (UL) in addition to various safety standards and requirements. There are no harmful off-gases or byproducts that will be produced by this equipment.

Please note that the energy server is monitored 24 hours a day, 7 days a week by Bloom Energy's communications network in Sunnyvale, CA with a back-up monitoring station in India. In the unlikely event the system will require attention, the system can be remotely shut off by Bloom. Additionally, the equipment will have several means to shut down the energy server locally.

We are submitting to the Connecticut Siting Council within the next two weeks and wanted to give you an opportunity to see the plans in advance. We would be happy to discuss any comments you may have either by phone or in person. Keeping the lines of communication open is an important part of our work in your community. If you have questions about this work, please contact me,

Thank you,
Bloom Energy



Justin Adams
(860) 839-8373

justin.adams@bloomenergy.com