BROWNRUDNICK

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PETITION NO. 1049

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ORIGINAL

December 3, 2012

RECEIVED
DEC - 3 2012
CONNECTICUT
SITING COUNCIL

VIA HAND DELIVERY

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

RE: Petition of BE 2012 W LLC to the Connecticut Siting Council for a Declaratory Ruling for the Location and Construction of a 250-Kilowatt Fuel Cell Customer-Side Distributed Resource at 495 Flatbush Avenue, Hartford, Connecticut

Dear Chairman Stein:

On behalf of BE 2012 W LLC, and pursuant to Conn. Gen. Stat. §§ 4-176 and 16-50k(a) and Conn. Agencies Regs. § 16-50j-38 *et seq.*, enclosed are an original and fifteen (15) copies of the above-captioned Petition, together with the filing fee of $625.

In the Petition, BE 2012 W LLC requests the Connecticut Siting Council's approval of the location and construction of an approximately 250-kilowatt (net) Bloom Energy Corporation fuel cell, including associated equipment (the "Facility"). The Facility will be located on a Walmart site at 495 Flatbush Avenue, Hartford, Connecticut (the "Site") on a paved area near the rear of building and next to a fenced storage area. The Facility will be approximately 26'-5" long, 8'-2" wide, and 6'-9" high. Electricity generated by the Facility will be consumed primarily at the Site, and any excess electricity will be exported to the electric grid. The Facility will be fueled by natural gas.

BE 2012 W LLC was selected by The Connecticut Light and Power Company ("CL&P") as a winning bidder in the "Low and Zero Emissions Renewable Energy Credit Program" established under Sections 107, 108, and 110 of Public Act No. 11-80. As a result of that selection, BE 2012 W LLC has entered into a Standard Contract for the Purchase and Sale of Connecticut Class I Renewable Energy Credits with CL&P, which was approved by the Connecticut Public Utilities Regulatory Authority on November 21, 2012.

Please contact me with any questions concerning this filing.

Very truly yours,

BROWN RUDNICK LLP

Michael E. Kozlik
Attorney for BE 2012 W LLC

Enclosures

60919624 v1-WorksiteUS-029819/0002

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

PETITION OF BE 2012 W LLC FOR A DECLARATORY RULING FOR THE LOCATION AND CONSTRUCTION OF A 250-KILOWATT FUEL CELL CUSTOMER-SIDE DISTRIBUTED RESOURCE AT 495 FLATBUSH AVENUE, HARTFORD, CONNECTICUT	:	PETITION NO. ____
	:	DECEMBER 3, 2012

PETITION OF BE 2012 W LLC FOR A DECLARATORY RULING

Pursuant to Conn. Gen. Stat. §§ 4-176 and 16-50k(a) and Conn. Agencies Regs. § 16-50j-38 *et seq.*, BE 2012 W LLC requests that the Connecticut Siting Council ("Council") approve by declaratory ruling BE 2012 W LLC's location and construction of its customer-side distributed resources project comprised of an approximately 250-kilowatt ("kW") (net) Bloom Energy Corporation ("Bloom") solid oxide fuel cell Energy Server described herein, including associated equipment (the "Facility"), located on the site of a Walmart at 495 Flatbush Avenue, Hartford, Connecticut (the "Site"). *See* Exhibit 1.

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 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 Protection . . . .

As discussed fully in this petition, the Facility will be a customer-side distributed resources facility under 65 megawatts ("MW") that complies with the air and water quality standards of the Connecticut Department of Energy and Environmental Protection ("DEEP").

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Additionally, the Facility will not have a substantial adverse environmental effect in the State of Connecticut.

I. COMMUNICATIONS

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

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Charles Fox
BE 2012 W LLC
c/o Bloom Energy Corporation
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Telephone: (212) 920-7151
Fax: (408) 543-1501
Email: Charles.Fox@bloomenergy.com

II. DISCUSSION

A. Background

The Facility will be a customer-side distributed resources facility consisting of one approximately 250-kW (net) state-of-the-art Bloom Energy Server and associated equipment interconnected to the main switch board in the Walmart's electrical room, located along the southern face of the store. *See* Exhibit 2 (Site Plan). Electricity generated by the Facility will be consumed primarily at the Site, and any excess electricity will be exported to the grid.

The Facility will be 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 a retail 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.

BE 2012 W LLC was selected by The Connecticut Light and Power Company ("CL&P") as a winning bidder in CL&P's and The United Illuminating Company's joint request for proposals for their "Low and Zero Emissions Renewable Energy Credit Program" established under Sections 107, 108, and 110 of Public Act No. 11-80, *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future* (codified at Conn. Gen. Stat. §§ 16-244r, -244s, and -244t, respectively). As a result of that selection, BE 2012 W LLC has entered into a *Standard Contract for the Purchase and Sale of Connecticut Class I Renewable Energy Credits* ("Standard Contract") with CL&P, under which BE 2012 W LLC will sell, and CL&P will purchase, Connecticut Class I Renewable Energy Credits generated by the Facility for a 15-year term. The PURA approved BE 2012 W LLC's selection by CL&P and its Standard Contract on November 21, 2012 in PURA Docket No. 11-12-06.

B. Description of the Site and the Facility

1. The Site

The Site is zoned as a Business District – General Linear Business (B-3) under the zoning regulations of the City of Hartford (the "City"). The approximately 19.37-acre parcel is currently developed for commercial use as part of the Charter Oak Marketplace (the "Marketplace"). The Walmart has frontage along Newfield Avenue, but the primary Marketplace entrance is along Flatbush Avenue. The property is leased by Walmart from Charter Oak Hartford, LLC. The Marketplace contains various mixed used commercial

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developments. All areas surrounding the Walmart parcel are zoned for commercial use. The nearest off-site structure is over 450 feet from the Facility's location. The Facility will be located within an asphalt area against the rear of building and next to a fenced storage area. The portion of the Site that will be used for the Facility is shown on Exhibit 2.

Prior to filing this petition, BE 2012 W LLC representatives discussed the Facility with Zoning Assistant Tammy McBride of the City's Planning Division in September 2012, and subsequent correspondence was sent to the City on November 5, 2012 (Exhibit 4) discussing the Facility and enclosing the Site Plan (Exhibit 2) for the City's review. To date, BE 2012 W LLC has received no comments from the City regarding the proposed Facility.

2. The Facility

The Facility will consist of one Bloom solid oxide fuel cell Energy Server described herein, including associated equipment and its electrical interconnection. The dimensions of the Energy Server are approximately 26'-5" long, 8'-2" wide, and 6'-9" high. The Energy Server module is enclosed and factory-assembled and tested prior to installation on the Site. *See* Exhibit 5.

The Energy Server will be capable of producing a total of 250 kW of continuous, reliable electric power. The Energy Server will interconnect to the Site's distribution system, will provide a portion of the Site's electrical requirements, and will operate in parallel with the grid. Any electricity generated in excess of the Site's requirement will be exported to the grid. The interconnection to CL&P will be provided from the main switchboard located in Walmart's electrical room. At the time of this report, the CL&P interconnection application is currently being prepared.

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The Energy Server will be fueled by natural gas supplied by Connecticut Natural Gas Corporation ("CNG"). A new service line will be brought to the Energy Server from CNG's existing gas main located in Newfield Avenue. The gas will be delivered into a new CNG gas meter set and the Facility's regulator set prior to entering the Energy Server.

The Bloom Energy Server has 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. If software or hardware safety circuits detect an unsafe condition, fuel supply is stopped and the system is shut down. Two manual fuel shut-off valves are provided at each installation site, and two normally closed isolation valves that are safety shut-off rated valves are installed within the system. The Facility will be installed in compliance with all applicable building, plumbing, electrical, and other codes.

C. The Facility Complies with DEEP's Air and Water Quality Standards and Will Not Have a Substantial Adverse Environmental Effect

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.

Construction-related impacts will be minimal. The Energy Server will be located within an asphalt area against the rear of building and next to a fenced storage area. The server will be clear of traffic circulation routes and will not displace parking. All utility trenches will be within paved areas. Saw cutting will be utilized to minimized disturbance and restored in kind.

Conn. Agencies Regs. § 22a-174-42, which governs air emissions from new distributed generators, exempts fuel cells from air permitting requirements. Accordingly, no permits,

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registrations, or applications are required based on the actual emissions from the Facility. *See* Conn. Agencies Regs. §§ 22a-174-42(b) and (e). Notwithstanding this exemption, as shown below in Table 1, the Facility meets the Connecticut emissions standards for a new distributed generator. Further, Bloom's model ES-5700 Energy Server has passed the stringent California Air Resources Board Distributed Generation Certification ("DG Certification") Regulation 2007 Fossil Fuel Emission Standards. *See* Exhibit 6.[1]

Table 1: Connecticut Emissions Standards for a New Distributed Generator

Compound	Connecticut Emission Standard (lbs/MW-hr)[2]	Bloom Energy Server (lbs/MW-hr)
Oxides of Nitrogen (NO_x)	0.15	<0.01
Carbon Monoxide (CO)	1	<0.10
Carbon Dioxide (CO_2)	1,650	773

With respect to water discharges, the Energy Server is designed to operate without water discharge under normal operating conditions. Due to the limited disturbance required for the Facility's installation, it is not anticipated that any construction-related stormwater permits will be required. However, appropriate soil erosion prevention techniques will be incorporated around the disturbed areas during construction to minimize soil erosion. No additional impervious areas will be added to the Site because all disturbances will be within paved areas and will not affect drainage patterns or stormwater discharge.

The Energy Server will be located on land that was previously developed and disturbed during construction of the Marketplace. The nearest off-site structure is over 450 feet from the

[1] Bloom manufactures several Energy Server models. While the attached DG Certification is specifically applicable to Bloom's model ES-5700 Energy Server. the emissions rates of all Bloom Energy Server models will not exceed those shown on the DG Certification or in the "Bloom Energy Server" column in Table 1, above. The proposed Facility will use one ES-5710 Energy Server, as depicted on the Site Plan attached as Exhibit 2.

[2] Conn. Agencies Regs. § 22a-174-42, Table 42-2.

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Energy Server location. Given its location and size, the construction and operation of the Facility will not have any adverse effects on either endangered species or historical resources.

The Energy Server will be placed along the rear of the building. The loading dock located approximately 100 feet east of the Facility will shield sound and visibility from Newfield Avenue. Sound levels attributable to the Facility will meet all applicable requirements at all off-site noise receptors.

III. NOTICE

As set forth in Exhibit 7, BE 2012 W LLC 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).

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 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.

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V. CONCLUSION

For the reasons stated above, BE 2012 W LLC respectfully requests that the Council approve the location and construction of the Facility by declaratory ruling.

Respectfully submitted,

BE 2012 W LLC

By: _____

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Its Attorneys

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: Correspondence with City

Exhibit 5: Bloom Energy Server Product Datasheet and General Installation Overview

Exhibit 6: California Air Resources Board Distributed Generation Certification

Exhibit 7: Notice Pursuant to Conn. Agencies Regs. § 16-50j-40(a)

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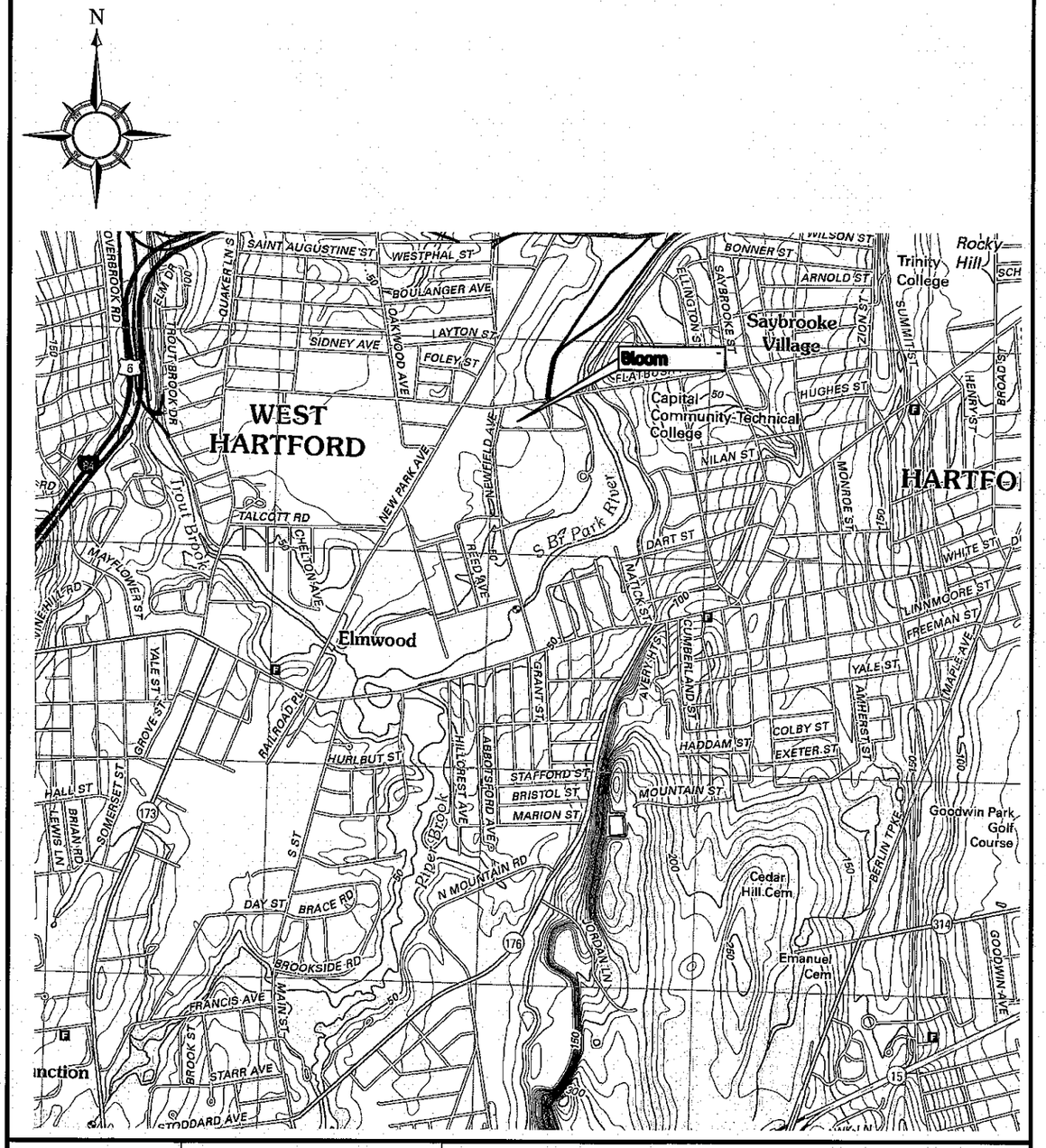
EXHIBIT 1



Job#:	BEC-14579
Scale:	1" ≈ 2,000'
Date:	11/08/2012
Drawn By:	RNP

CORE STATES GROUP
379 Campus Drive, Ste 150,
Somerset, NJ 08873
tel 732-667-9500 Fax732-667-9501
gphillips@core-eng.com

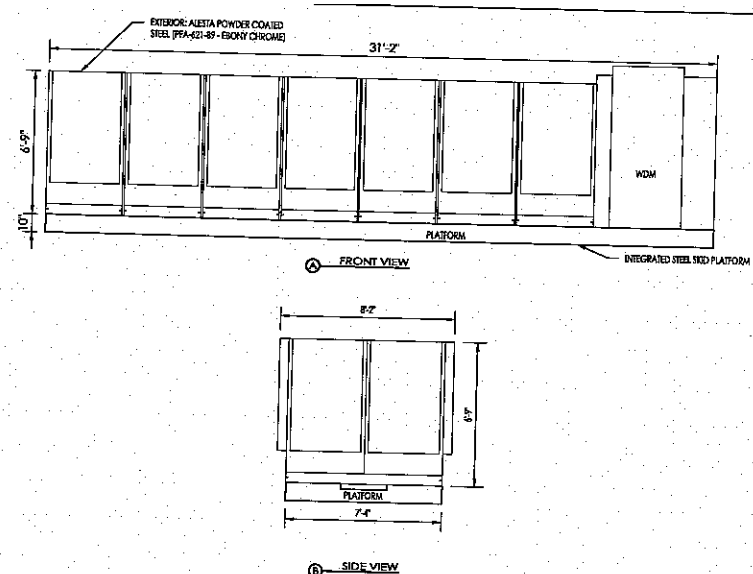
Bloom™

1252 Orleans Drive, Sunnyvale CA, 94089
Tel: 408 543 1500 Fax: 408 543 1501

495 Flatbush Avenue
Hartford, CT 06106

SITE LOCATION MAP
USGS MAP (HARTFORD QUADRANGLE)

EXHIBIT 2

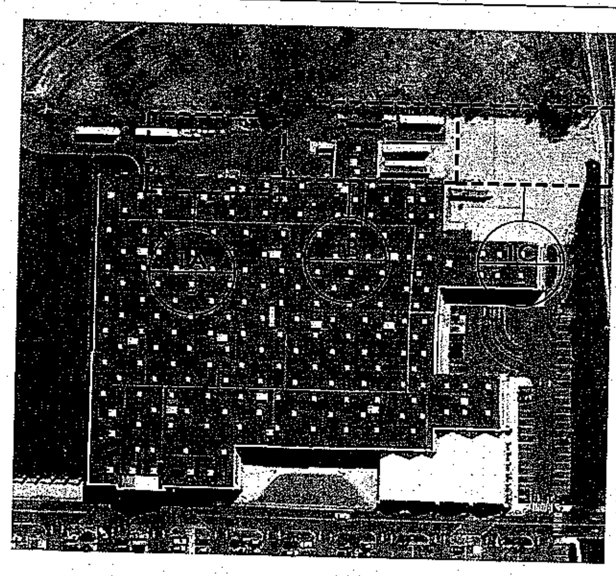


TYPICAL ELEVATION OF BLOOMENERGY ES UNITS | SCALE 3" = 1'-0" | 2

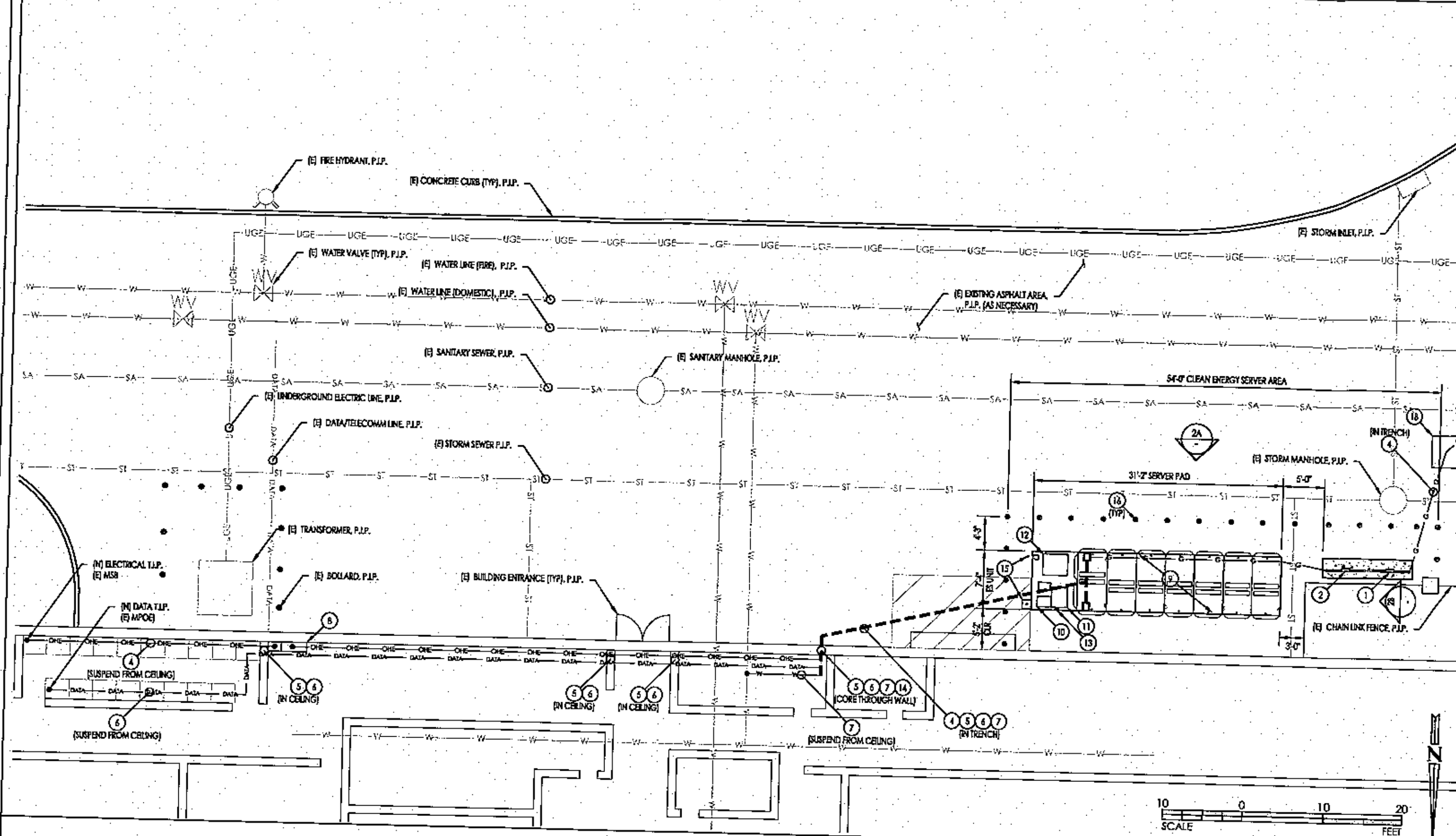
Technical Highlights	
Inputs	
Fuel	Natural Gas
Fuel pressure	15 psig
Fuel required	1.65 MMBtu/hr of natural gas
Outputs	
Nameplate power output (net AC)	270 kW
Electrical efficiency (LHV net AC)	50 - 60%
Electrical connection	480V @ 60 Hz
Codes & Standards	
Designed to comply with FCC Class A and California Rule 21 utility interconnection standards.	
Exempt from Air District Permitting; meets stringent CARB 2007 emissions standards.	

BLOOMENERGY ES-5710 SPECIFICATION

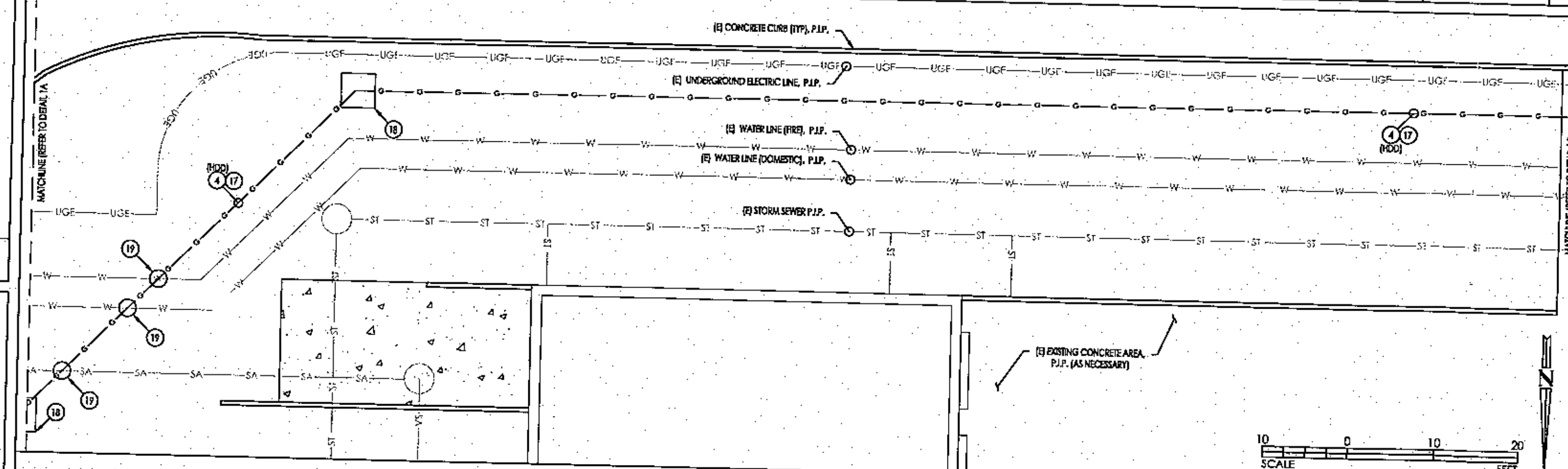
BLOOMENERGY SPECIFICATIONS | SCALE NTS | 3



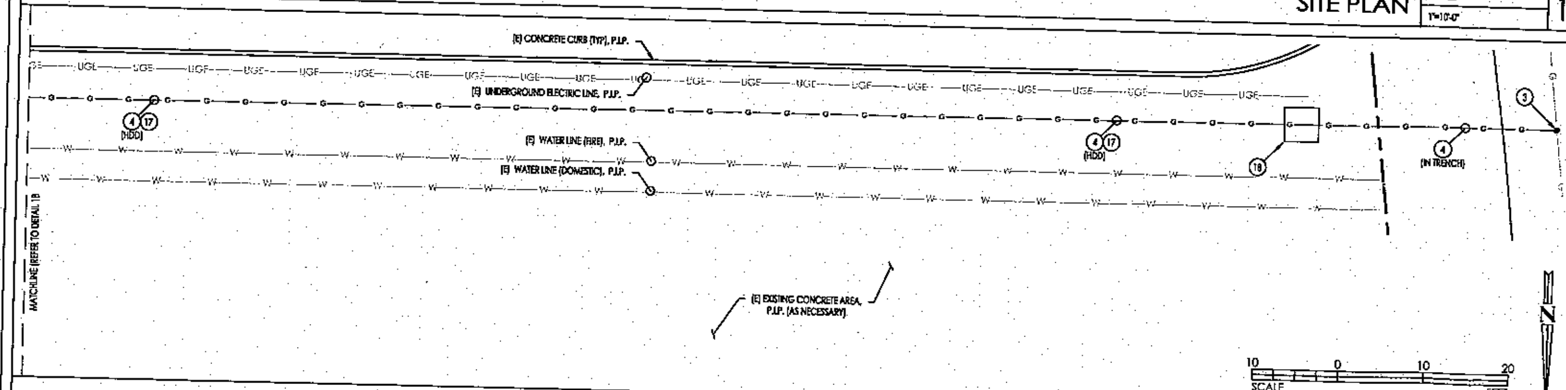
OVERALL SITE PLAN | SCALE 1"=200' | 4



SITE PLAN | SCALE 1"=10'-0" | 1A



SITE PLAN | SCALE 1"=10'-0" | 1B



SITE PLAN | SCALE 1"=10'-0" | 1C

RESPONSIBILITY NOTES

1. THE FOLLOWING EQUIPMENT SHOWN ON THESE PLANS WILL BE PROVIDED AND DELIVERED BY BLOOM ENERGY. APPLICABLE TRADES TO MOUNT AND MAKE FINAL CONNECTIONS:
   - ELECTRICAL DISTRIBUTION MODULE (EDM)
   - WATER DEIONIZATION MODULE (WDM)
   - SIGNAGE (SEE SAFETY SIGNAGE)
   - SITE KIT (SEE SITE KIT NOTES)
2. THE FOLLOWING EQUIPMENT SHOWN ON THESE PLANS WILL BE PROVIDED, DELIVERED AND MOUNTED BY BLOOM ENERGY. APPLICABLE TRADES TO MAKE FINAL CONNECTIONS:
   - CLEAN ENERGY SERVER
   - INTEGRATED STEEL SKID (SEE SHEET 1 OF 1)

SITE KIT NOTES

1. BLOOMENERGY TO PROVIDE AND DELIVER THE SITE KIT.
2. ELECTRICAL AND PLUMBING CONTRACTOR TO INSTALL SITE KITS, CONSISTING OF PAD PLUMBING AND BUS BARS, ON THE PRECAST CONCRETE PAD PER MANUFACTURE SPECIFICATIONS.

CONDUIT & PIPE LENGTHS

TYPE	TOTAL DISTANCE FROM TIE-IN TO FURTHERMOST ES UNIT (LINEAR)
GAS PIPE	±500'
ELECTRICAL CONDUIT	±115'
DATA CONDUIT	±120'
WATER PIPE	±30'

LEGEND OF UTILITY LINES

DATA LINE	SANITARY LINE
FENCE LINE	STORM LINE
FIBER OPTICS & PHONE	TELEVISION LINE
GAS LINE	UNDERGROUND ELECT.
JOINT TRENCH	WATER LINE
OVERHEAD ELECTRICAL	

KEYNOTES

1. (N) UTILITY GAS METER SET ASSEMBLY (MSA) FOR CLEAN ENERGY SERVER. COORDINATE LOCATION AND INSTALLATION REQUIREMENTS WITH UTILITY COMPANY PRIOR TO INSTALLATION. MAINTAIN MINIMUM 3'-0" CLEARANCE FROM ALL IGNITION SOURCES. PROVIDE CONCRETE PAD PER GAS ASSEMBLY PAD (DETAIL 7/5.0). MSA & INTERCONNECTION DIAGRAM PER NATURAL GAS DIAGRAMS (DETAIL 1/5.0). ADD IMPACT PROTECTION AS INDICATED BY UTILITY COMPANY.
2. (N) PRIVATE GAS REGULATOR SET ASSEMBLY (RSA) FOR CLEAN ENERGY SERVER WITH SHUT-OFF VALVE. MAINTAIN MINIMUM 3'-0" CLEARANCE FROM ALL IGNITION SOURCES & WET UTILITIES. PROVIDE CONCRETE PAD PER GAS ASSEMBLY PAD (DETAIL 7/5.0). RISER & INTERCONNECTION DIAGRAMS PER NATURAL GAS SUPPLY DIAGRAM (DETAIL 1/5.0).
3. (N) GAS SERVICE TAP BY UTILITY COMPANY. CONTRACTOR TO PROVIDE TAP PIT, EXCAVATION AND REPLACE TO ORIGINAL CONDITIONS AS REQUIRED BY UTILITY COMPANY AND PERMITTING AUTHORITY. PROVIDED (N) GAS PIPE FROM (N) GAS SERVICE RUN TO (N) UTILITY GAS MSA. COORDINATE ROUTING PATH AND MSA LOCATION WITH UTILITY PRIOR TO INSTALLATION. DETAILS PER GRADING PLAN (SHEET 3.0). SIZE PER INTERCONNECTION DIAGRAM (SHEET 5.0).
4. (N) GAS PIPE FROM (N) GAS SERVICE TAP TO TERMINATE AT (N) UTILITY GAS MSA. DETAIL(S) PER GRADING PLAN (SHEET 3.0) SIZE(S) PER INTERCONNECTION DIAGRAM (SHEET 5.0)
5. (N) ELECTRICAL CONDUIT & CABLE FROM (N) PDS TO TERMINATE AT (E) SWITCHBOARD. DETAIL(S) PER GRADING PLAN. SIZE(S) PER ONE LINE DIAGRAM (SHEET 6.0).
6. (N) DATA CONDUIT & CABLE FROM (N) PDS TO TERMINATE AT (E) MPOE. DETAIL(S) PER GRADING PLAN (SHEET 3.0). SIZE(S) PER INTERCONNECTION (SHEET 6.0).
7. (N) WATER PIPE FROM BUILDING DOMESTIC WATER SYSTEM TO (N) WDM. CONNECT TO NEAREST AVAILABLE LOCATION. DETAIL(S) PER GRADING PLAN (SHEET 3.0). SIZE(S) PER INTERCONNECTION DIAGRAM (SHEET 5.0).
8. (N) FLEXIBLE UTILITY CONNECTION SWITCH. SPECIFICATIONS PER ONE LINE DIAGRAM (SHEET 6.0). MOUNT TO FLOOR AND PER MANUFACTURE SPECIFICATIONS. INSURE LOCATION MEETS ALL REQUIRED N.E.C. CLEARANCES. PROVIDE MODEL NUMBER ON THE OUTSIDE OF THE FRONT PANEL. COMPLETE SPECIFICATION PER ELECTRICAL SPECIFICATIONS (SHEET 8.0) SECTION 16A.2-6.
9. (N) BLOOMENERGY ES-5710 ENERGY SERVER. SKID AND MOUNTING SPECIFICATIONS PER INTEGRATED STEEL SKID (SHEET 1 OF 1). SKID PLACEMENT PER GRADING PLAN (SHEET 3.0). CONDUIT STUB-UP LOCATIONS PER CONDUIT PLAN (SHEET 4.0).
10. (N) POWER DISTRIBUTION SECTION (PDS). PLATFORM AND MOUNTING SPECIFICATIONS PER PLATFORM (SHEET 1 OF 1). CONDUIT STUB-UP LOCATIONS PER CONDUIT PLAN (SHEET 4.0).
11. (N) TELEMETRY SECTION (TS). PLATFORM AND MOUNTING SPECIFICATIONS PER PLATFORM (SHEET 1 OF 1). CONDUIT STUB-UP LOCATIONS PER CONDUIT PLAN (SHEET 4.0)
12. (N) WATER DEIONIZATION MODULE (WDM). PAD AND MOUNTING SPECIFICATIONS PER GRADING PLAN (SHEET 1 OF 1). CONDUIT STUB-UP LOCATIONS PER CONDUIT PLAN (SHEET 4.0).
13. (N) BLOOMENERGY EDM FACTORY WIRED CLEAN ENERGY SERVER EMERGENCY POWER-OFF SWITCH (EPO).
14. CORE CONDUIT AND/OR PIPE THROUGH WALL. SCAN WALL PRIOR TO CORING. DETAIL(S) PER GRADING PLAN (SHEET 3.0).
15. (N) 10'-0" COPPER GROUNDING RODS 6'-0" APART WITH ERICO T416D INSPECTION WELL. SPECIFICATIONS PER ONE LINE DIAGRAM (SHEET 6.0).
16. (N) GUARD POST (TYP). INSTALL GUARD POST AFTER ES UNITS HAVE BEEN INSTALLED. TYPE, SIZE AND LOCATION PER IMPACT PROTECTION PLAN (SHEET 3.2).
17. (N) INSTALL CONDUIT AND/OR PIPE BY HORIZONTAL DIRECTIONAL DRILLING (HDD). DETAIL(S) PER GRADING PLAN (SHEET 3.0).
18. PROVIDE HDD PIT AT START AND END OF (N) HDD. PATCH BACK PIT TO MATCH EXISTING. DETAIL(S) PER GRADING PLAN (SHEET 3.0).
19. PROVIDE POTHOLE AT ALL UTILITY CROSSING OF (N) HDD PRIOR TO BEGINNING (N) HDD. PATCH POTHOLE TO MATCH EXISTING. DETAIL(S) PER GRADING PLAN (SHEET 3.0).

DIGALERT — DIAL BEFORE YOU DIG — TWO WORKING DAYS BEFORE YOU DIG — TOLL FREE 1-800-227-2600 — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. CORE STATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

CLIENT APPROVAL: ______________ DATE

BLOOMENERGY APPROVAL: ______________ DATE

Bloomenergy
1252 Orleans Drive, Sunnyvale CA, 94089
Tel: 408 543 1500
Fax: 408 543 1501
www.bloomenergy.com

Walmart
CLEAN ENERGY SERVER
495 FLATBUSH AVENUE
HARTFORD, CT 06106

CORE STATES GROUP
3401 CENTRELAKE DRIVE
SUITE 400
ONTARIO, CA 91761

SEAL

ISSUE	DATE	DESCRIPTION
1	10-19-12	CLIENT COMMENTS

PROJECT INFORMATION	
JOB #	BEC-14579
DATE:	10-02-12
DRAWN BY:	RNP
CHECKED BY:	TM

MODEL: (1) ISS ES-5710

SHEET TITLE: SITE PLAN

SHEET NUMBER: C1

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 reformate 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 CO_2 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.

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.

K. Santopietro

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

September 12, 2012
Date

60906902 V1-WORKSITEUS-029819/0002

EXHIBIT 4

engineering
architecture
project management
construction management
permitting
development services

CORE STATES GROUP

November 5, 2012

Tammy McBride
City of Hartford Planning
550 Main Street
Hartford, CT 06103

RE: Bloom Energy Fuel Server Project
495 Flatbush Avenue Walmart

Dear Ms. McBride,

We spoke a few weeks ago regarding Bloom Energy. If you recall, Bloom Energy Servers are fuel cells that utilize natural gas and water to generate electricity. The electricity will serve some of the demands of large facilities such as the Walmart building referenced above. Since our initial conversation we have further refined our plans and coordinated with the gas company. I've attached a copy of Bloom Energy's product sheet which is also available on their web site: http://www.bloomenergy.com and the current preliminary plan. These are pad mounted devices, similar to a transformer. As you can see from the material and web site, the equipment is self-enclosed and modern looking. We ask that you respect the confidentiality of these documents.

Bloom is proposing to install one energy server. It will be similar to the attached and located at the rear of the building. This area is currently paved, clear of circulation routes and will not displace parking.

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. If you have any questions or need further information, please feel free to call.

Sincerely,

Robert L. Streker, PE
CC: G.Benson, Bloom Energy

EXHIBIT 5

Bloomenergy™ Energy Server

Clean Base Load Power

Bloom Energy Corporation is a provider of breakthrough solid oxide fuel cell (SOFC) technology that delivers clean power to meet base load electricity needs. Bloom Energy Servers™ are among the most efficient energy generators available, providing for significantly reduced electricity costs and dramatically lower greenhouse gas emissions. Bloom Energy Servers™ produce reliable and clean electricity using an environmentally superior non-combustion process. The result is a new option for energy infrastructure that combines increased electrical reliability and improved energy security with significantly lower environmental impact.

All-Electric Solution

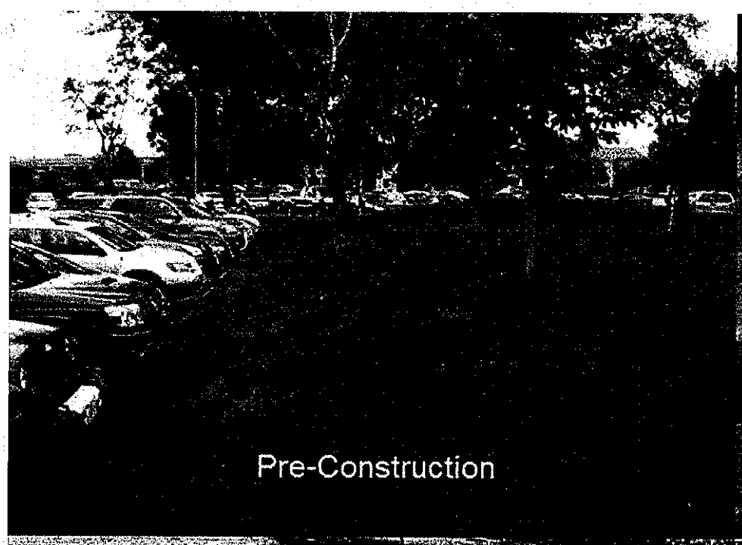
The Bloom Energy Server™ is an "all-electric" solution that utilizes waste heat internally to increase the efficiency of electrical power production. This characteristic allows Bloom systems to be deployed at sites where it is not necessary to match on-site thermal loads or develop complicated infrastructure to handle thermal energy outputs. The Energy Server's superior electrical efficiency obviates the need for complicated CHP systems and expands the opportunity to deploy clean on-site power generation.

Technical Highlights

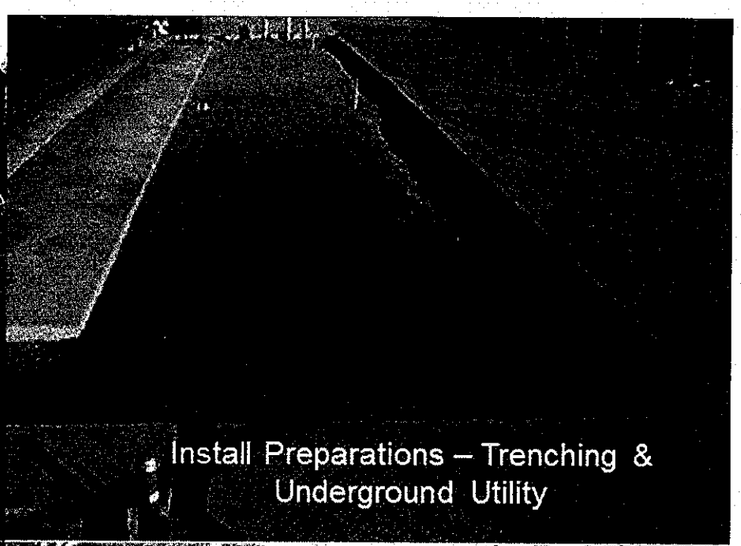
Inputs	
Fuel	Natural Gas
Fuel pressure	15 psig
Fuel required per 100 kW generated	0.661 MMBtu/hr of natural gas
Outputs	
Nominal power output (net AC)	Per 100 kW generated
Electrical efficiency (LHV net AC)	50 - 60%
Electrical connection	480V @ 60 Hz
Emissions	
NOx	< 0.01 lbs/MW-hr
SOx	negligible
CO	< 0.10 lbs/MW-hr
VOCs	< 0.02 lbs/MW-hr
CO2 @ specified efficiency	773 lbs/MW-hr of natural gas
Codes & Standards	
Designed to comply with NEC, NFPA, ANSI, CT DPUC and CT SIR utility interconnection standards.	
Exempt from Air District Permitting; meets stringent CARB 2007 emissions standards.	

Bloom Energy Corporation 1252 Orleans Drive Sunnyvale CA 94089 T 408 543 1500 www.bloomenergy.com

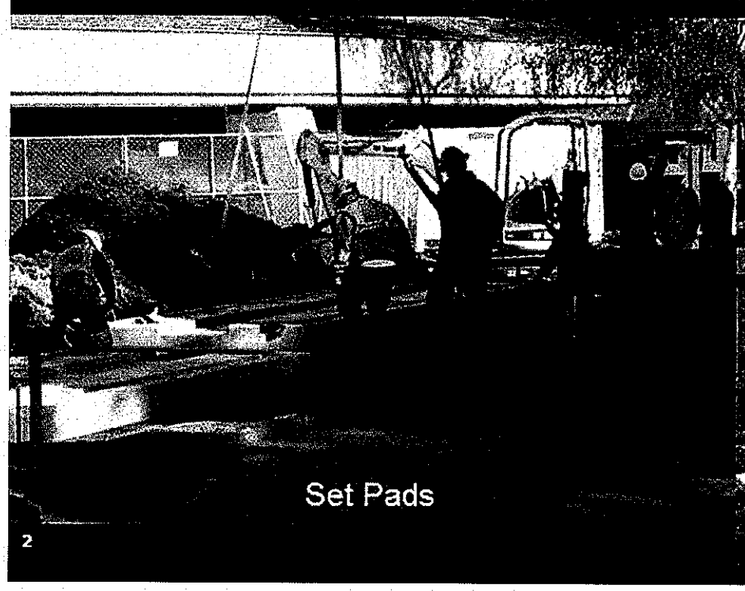
Bloom Energy Server



Pre-Construction



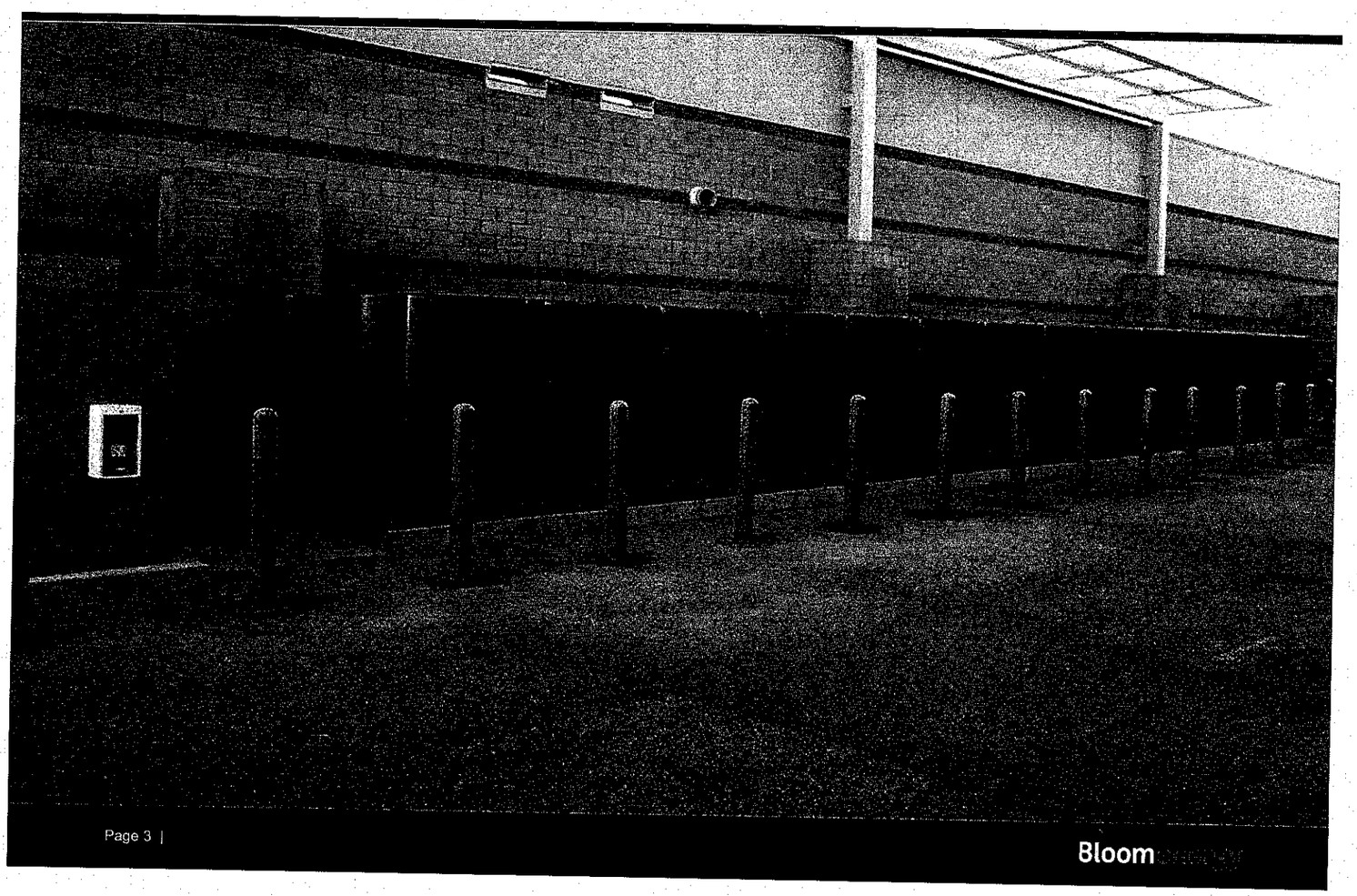
Install Preparations – Trenching & Underground Utility



Set Pads

Site Completion

Bloom Energy Server Installation



Representative Installations

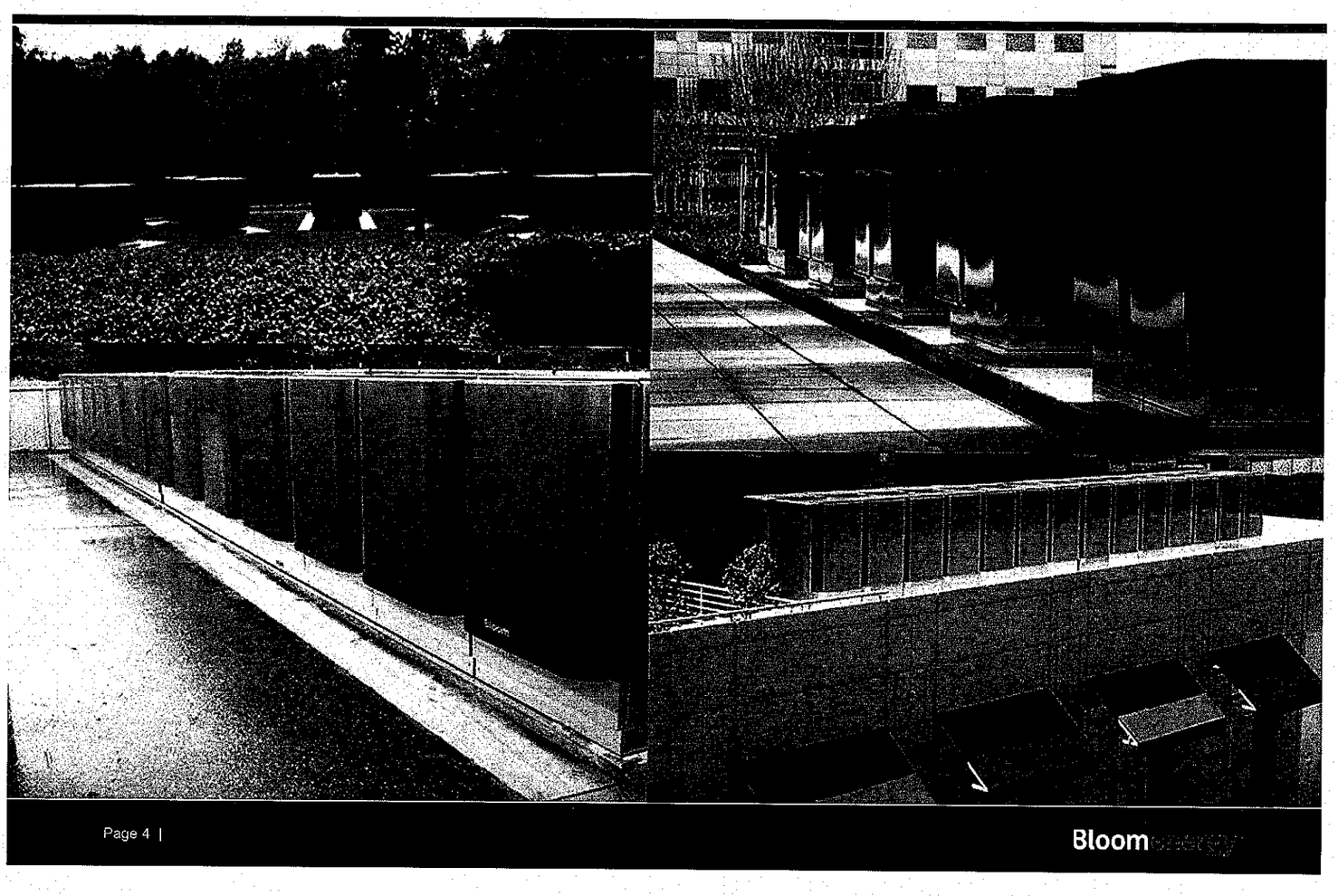


EXHIBIT 6

State of California
AIR RESOURCES BOARD
Executive Order DG-036
Distributed Generation Certification of
Bloom Energy Corporation
ES-5700

WHEREAS, the Air Resources Board (ARB) was given the authority under California Health and Safety Code section 41514.9 to establish a statewide Distributed Generation (DG) Certification Program to certify electrical generation technologies that are exempt from the permit requirements of air pollution control or air quality management districts;

WHEREAS, this DG Certification does not constitute an air pollution permit or eliminate the responsibility of the end user to comply with all federal, state, and local laws, rules and regulations;

WHEREAS, on July 11, 2011, Bloom Energy Corporation applied for a DG Certification of its 200 kW ES-5700 fuel cell and whose application was deemed complete on August 30, 2011;

WHEREAS, Bloom Energy Corporation has demonstrated, according to test methods specified in title 17, California Code of Regulations (CCR), section 94207, that its natural-gas-fueled ES-5700 fuel cell has complied with the following emission standards:

1. Emissions of oxides of nitrogen no greater than 0.07 pounds per megawatt-hour;

2. Emissions of carbon monoxide no greater than 0.10 pounds per megawatt-hour; and

3. Emissions of volatile organic compounds no greater than 0.02 pounds per megawatt-hour.

WHEREAS, Bloom Energy Corporation has demonstrated that its ES-5700 fuel cell complies with the emission durability requirements in title 17, CCR, section 94203(d);

WHEREAS, I find that the Applicant, Bloom Energy Corporation, has met the requirements specified in article 3, title 17, CCR, and has satisfactorily demonstrated that the ES-5700 fuel cell meets the DG Certification Regulation 2007 Fossil Fuel Emission Standards;

NOW THEREFORE, IT IS HEREBY ORDERED, that a DG Certification, Executive Order DG-036 is granted.

This DG Certification:

1) is subject to all conditions and requirements of the ARB's DG Certification Program, article 3, title 17, CCR, including the provisions relating to inspection, denial, suspension, and revocation;

2) shall be void if any manufacturer's modification results in an increase in emissions or changes the efficiency or operating conditions of a model, such that the model no longer meets the DG Certification Regulation 2007 Fossil Fuel Emission Standards; and

3) shall expire on the 21st day of September, 2016.

Executed at Sacramento, California, this 21st day of September 2011.

James Goldstene
Executive Officer
by

/S/

Richard Corey, Chief
Stationary Source Division

EXHIBIT 7

MICHAEL E. KOZLIK
Counselor at Law
direct dial: 860-509-6570
mkozlik@brownrudnick.com

BROWNRUDNICK

CityPlace I
185 Asylum
Street
Hartford
Connecticut
06103
tel 860.509.6500
fax 860.509.6501

November 28, 2012

VIA FIRST CLASS MAIL

To the Persons on the Attached List

RE: Petition of BE 2012 W LLC to the Connecticut Siting Council for a Declaratory Ruling for the Location and Construction of a 250-Kilowatt Fuel Cell Customer-Side Distributed Resource at 495 Flatbush Avenue, Hartford, Connecticut

Dear Ladies and Gentlemen:

Pursuant to Section 16-50j-40 of the Connecticut Siting Council's (the "Council") regulations, we are notifying you that BE 2012 W LLC intends to file on or shortly after November 30, 2012, a petition for declaratory ruling with the Council. The petition will request the Council's approval of the location and construction of an approximately 250-kilowatt (net) Bloom Energy Corporation fuel cell, including associated equipment (the "Facility"). The Facility will be located on a Walmart site at 495 Flatbush Avenue, Hartford, Connecticut (the "Site") on a paved area near the rear of building and next to a fenced storage area. The Facility will be approximately 26'-5" long, 8'-2" wide, and 6'-9" high. Electricity generated by the Facility will be consumed primarily at the Site, and any excess electricity will be exported to the electric grid. The Facility will be fueled by natural gas.

BE 2012 W LLC was selected by The Connecticut Light and Power Company ("CL&P") as a winning bidder in the "Low and Zero Emissions Renewable Energy Credit Program" established under Sections 107, 108, and 110 of Public Act No. 11-80. As a result of that selection, BE 2012 W LLC has entered into a Standard Contract for the Purchase and Sale of Connecticut Class I Renewable Energy Credits with CL&P, which was approved by the Connecticut Public Utilities Regulatory Authority on November 21, 2012.

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

Very truly yours,

BROWN RUDNICK LLP

Michael E. Kozlik

Michael E. Kozlik
Attorney for BE 2012 W LLC

60906468 v1-WorkSiteUS-029819/0002

PROOF OF NOTICE

This is to certify that on the 28th day of November, 2012, the foregoing notice was sent via first class mail to the following:

AGENCY	*NAME/ADDRESS*
Hartford Chief Executive Officer	Pedro Segarra, Mayor City of Hartford 550 Main Street Hartford, CT 06103
Hartford Planning and Zoning Commission Inland Wetlands Agency	Sandra Bobowski, Chairwoman Planning and Zoning Commission and Inland Wetlands Agency City of Hartford Development Services 250 Constitution Plaza Hartford, CT 06103
Hartford Town Planner	Kim Holden, Chief Staff Planner City of Hartford Development Services 250 Constitution Plaza Hartford, CT 06103
Hartford Zoning Assistant	Tammy McBride, Zoning Assistant City of Hartford Development Services 250 Constitution Plaza Hartford, CT 06103
West Hartford Chief Executive Officer	Mayor Scott Slifka West Hartford Town Hall 50 South Main Street West Hartford, CT 06107
West Hartford Planning and Zoning Commission	Paul Freeman, Chairman Planning and Zoning Commission West Hartford Town Hall 50 South Main Street West Hartford, CT 06107

AGENCY	*NAME/ADDRESS*
West Hartford Town Planner	Milagros Limson, Town Planner Planning and Zoning Department West Hartford Town Hall 50 South Main Street West Hartford, CT 06107
Regional Planning Agency	Lyle Wray, Executive Director Capitol Region Council of Governments 241 Main Street, 4th Floor Hartford, Connecticut 06106-5310
CT Attorney General	The Honorable George Jepsen Attorney General 55 Elm Street Hartford, CT 06106
State Senator	The Honorable John Fonfara State Senate – 1st District Legislative Office Building, Room 3900 Hartford, CT 06106-1591
State Senator	The Honorable Eric D. Coleman State Senate – 2nd District Legislative Office Building, Room 2500 Hartford, CT 06106-1591
State Representative	The Honorable Matt Ritter State Representative – 1st District Legislative Office Building, Room 4003 Hartford, CT 06106-1591
State Representative	The Honorable Minnie Gonzalez State Representative – 3rd District Legislative Office Building, Room 4039 Hartford, CT 06106-1591
State Representative	The Honorable Kelvin Roldan State Representative – 4th District Legislative Office Building, Room 4029 Hartford, CT 06106-1591

AGENCY	*NAME/ADDRESS*
State Representative	The Honorable Marie Lopez Kirkley-Bey State Representative – 5th District Legislative Office Building, Room 4108 Hartford, CT 06106-1591
State Representative	The Honorable Hector Robles State Representative – 6th District Legislative Office Building, Room 4011 Hartford, CT 06106-1591
State Representative	The Honorable Douglas McCrory State Representative – 7th District Legislative Office Building, Room 4053 Hartford, CT 06106-1591
State Department of Energy and Environmental Protection	Daniel C. Esty, Commissioner Department of Energy and Environmental Protection 79 Elm Street Hartford, CT 06106-5127
State Department of Public Health	Dr. Jewel Mullen, Commissioner Department of Public Health 410 Capitol Avenue Hartford, CT 06134
State Council on Environmental Quality	Barbara C. Wagner, Chair Council on Environmental Quality 79 Elm Street Hartford, CT 06106
State Department of Agriculture	Steven K. Reviczky, Commissioner Department of Agriculture 165 Capitol Avenue Hartford, CT 06106
Office of Policy & Management	Benjamin Barnes, Secretary Office of Policy and Management 450 Capitol Avenue Hartford, CT 06106

AGENCY	*NAME/ADDRESS*
State Department of Economic & Community Development	Catherine Smith, Commissioner Department of Economic and Community Development 505 Hudson Street Hartford, CT 06106
State Department of Transportation	James P. Redecker, Commissioner Department of Transportation 2800 Berlin Turnpike Newington, CT 06111
Any Federal Agencies with Jurisdiction Over the Site	None
ABUTTER PROPERTY	*ABUTTER NAME/MAILING ADDRESS*
450 Flatbush Avenue	Wal-Mart Real Estate Business Trust Paramount Realty 1195 Route 70, Suite 2000 Lakewood, NJ 08701
475 Flatbush Avenue 27 William Shorty Campbell Street	Charter Oak Hartford LLC c/o EProperty Tax Dept #124 P.O. Box 4900 Scottsdale, AZ 85261-4900
100 William Shorty Campbell	U.S. Department of Labor /OFAM/ETA/OGCM Division of Acquisition & Assistance 200 Constitution Avenue NW, Room S-4203 Washington, DC 20210-0001
200 Newfield Avenue 180 Overlook Terrace	Housing Authority – City of Hartford 180 Overlook Terrace Hartford, CT 06106-3603
227 Newfield Avenue	Newfield Avenue Associates LLC 225 Newfield Avenue Hartford, CT 06106-3635
231 Newfield Avenue	Pentecostal Tabernacle (Apostolic) Inc. 249 Newfield Avenue Hartford, CT 06106

ABUTTER PROPERTY	*ABUTTER NAME/MAILING ADDRESS*
235 Newfield Avenue	Bridgewater Group LLC 52 High Ridge Drive Pawcatuck, CT 06379
249 Newfield Avenue 261 Newfield Avenue	Pentecostal Tabernacle (Apostolic) Inc. 49 White Street Hartford, CT 06114-2342
281 Newfield Avenue 285 Newfield Avenue	SK Realty 285 Newfield Avenue Hartford, CT 06106-3630
569 Flatbush Avenue	State of Connecticut – Department of Transportation 2800 Berlin Turnpike Newington, CT 06111-4113
540 Flatbush Avenue	Harsco Corp. 22-08 State Route 208, Suite 525 Fair Lawn, NJ 07410-2609
490 Flatbush Avenue	Danny Corp. 48 Orchard Road West Hartford, CT 06117-2912

By: MEKozlik
Michael E. Kozlik

60903120 v1-029819/0002