What Powers You

April 27, 2023

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

**RE: PETITION NO. 1561 -** Bloom Energy Corporation petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a customer-side 350-kilowatt fuel cell facility and associated equipment to be located at Naugatuck Valley Community College, 750 Chase Parkway, Waterbury, Connecticut.

Dear Ms. Bachman:

Please see the attached responses to interrogatories provided to Bloom Energy on April 24th, 2023.

Respectfully,

Kristen Grillo
**Senior Permitting Specialist | East Coast Field Office**
Customer Installations Group | North America
(917) 803-4511
Kristen.Grillo@bloomenergy.com

**Petition No. 1561**
**Bloom Energy Corporation (Bloom)**
**Naugatuck Valley Community College**
**750 Chase Parkway**
**Waterbury, Connecticut**
**Interrogatories**

**April 27, 2023**

## Notice

1. Referencing page 10 and Exhibit 8 of the Petition, has the City of Waterbury, the Town of Middlebury and/or any abutters provided comments to Bloom since the Petition filing? If so, please summarize the comments and how these comments were addressed.
   **Response: Since the Petition filing, no comments were received from the City of Waterbury or the Town of Middlebury. An abutters inquiry was received on March 14th by Marcel Rodriguez, Property ID 0338-0065-001, 68 Northwood Drive. A preliminary site plan and photo of the proposed installation site was provided. Please see Attachment #1.**

## Project Development

2. Is the project, or any portion of the project, proposed to be undertaken by state departments, institutions, or agencies, or to be funded in whole or in part by the state through any contract or grant?
   **Response: No. No portion of the project is proposed to be undertaken by state departments, institutions, or agencies. The project will not be funded in whole or in part by the state through any contract or grant.**

3. What is the estimated cost of the proposed project?
   **Response: The estimated cost of the project is $1,277,600.**

4. Referencing the Petition pages 1 and 7, the facility was selected as part of the LREC program under Connecticut General Statutes §16-244t. Was the facility selected as part of the Non-Residential Renewable Energy Solutions (NRES) Program, which is the successor to the LREC program as of June 30, 2021? If so, what are the differences in program administration and/or requirements for the facility?
   **Response: Petition pages 1 and 7 should be corrected to state that the facility has been selected by the NRES Program. The primary difference between the LREC and NRES programs is that NRES agreements are for 20 years while LREC is for 15 years. NRES has 2 different program options; "Buy-All" or "Netting". The Netting option is very similar to LREC and this site has selected to use the Netting option.**

## Proposed Site

5. What is the distance and direction of the nearest off-campus residence from the proposed fuel cell facility?
   **Response: The nearest off-campus residence, 62 Janwood Road, Waterbury CT, is located approximately 480 feet to the South West of the proposed fuel cell facility.**

6. What is the distance and direction from the proposed fuel cell facility to the Max R. Traurig Library?
**Response: The building in which the Max. R. Traurig Library is in is approximately 85 feet to northeast of the proposed fuel cell facility.**

7. Would the proposed facility be enclosed by a fence? Provide the design specifications of the proposed fence. Would bollards be used to protect the fuel cell facility?
**Response: The proposed facility will not be enclosed by a fence. Bollards are not proposed because vehicle travel ways and parking are not proximate to the installation.**

## Site Components/ Interconnection

8. Drawing No. C1.1 of Exhibit 3 appears to show two existing underground utility lines run across the location of the proposed facility. How would construction protect the existing utility lines?
**Response: There is an existing abandoned-in-place communication duct bank directly under the proposed fuel cell location at a depth of approximately 7 ft. There are also two chilled water lines just beyond the fuel cell's asphalt service area at a depth of approximately 5 ft. No equipment is proposed over these chilled water lines and Bloom does not expect construction activities to reach more than 5 feet below grade. Bloom's contractor is responsible for locating existing utilities prior to commencing construction activities.**

9. Referencing page 3 of the Petition, what is the status of the Interconnection Application?
**Response: The Interconnection Application has been submitted and is under review.**

10. Referencing page 3 of the Petition, has the natural gas interconnection point for the facility been determined? If so, please identify the location of the gas utility interconnection point.
**Response: The gas interconnection point is located approximately 200 ft to the East of the fuel cell installation.**

## Public Safety

11. Referencing page 4 of the Petition, please identify media to be used for pipe cleaning procedures at the proposed facility in accordance with Public Act 11-101, An Act Adopting Certain Safety Recommendations of the Thomas Commission.
**Response: The media to be used for the pipe cleaning procedures at the proposed facility would be nitrogen.**

12. Referencing the proximity of the proposed facility to the 100 year flood zone as shown in Exhibit 5 of the Petition, would Bloom consider elevating the base of the fuel cell? How high would the facility be elevated? What would be the additional cost? –
**Response: After consultation with the University when selecting the location, Bloom has not considered elevating the base of fuel cell.**

13. Footnote 2 on page 4 of the Petition references the 2015 edition of the National Fire Protection Association (NFPA) 853 standard. The State of Connecticut has adopted the 2020 NFPA standard. Would the proposed facility be installed in accordance with the most recent standards?
**Response: Yes, the proposed facility will be installed in accordance with the most recent 2020 NFPA standards.**

14. What security measures would be employed to protect the fuel cell units/components from vandalism or intrusion?
**Response: The fuel cells are tamper-proof; the internal components of the system cannot be accessed without a unique key that is needed to open the servers, preventing anyone that is non-essential personnel from accessing them.**

15. Would lighting be used on site? If so, for what purpose and what type would be installed (e.g motion activated, preset timer…)?
**Response: The Facility will not use any lighting. Given its proximity to other university infrastructure, it is likely that ambient lighting is present after dark.**

## Environmental

16. What is the distance of the proposed facility to Welton Brook and the pond southwest of the facility? Would any erosion and sedimentation control measures be implemented, consistent with 2002 *Connecticut Guidelines for Erosion and Sediment Control*, and/or any additional measures be taken to protect these resources? Explain.
**Response: Typical concrete washout and storm drain details are provided; please see Attachment #2.**

17. Referencing Petition page 8, Bloom used the 2020 eGRID data to calculate the potential reduction in carbon emissions and other air emissions. Is there more recent eGRID data available from the U.S. Environmental Protection Agency? Would that more recent eGRID data change the results provided?
**Response: The eGrid data percentage provided in the Petition at Page 8 is based on the most recent eGRID data; "2021" should be substituted for "2020".**

18. Would any trees need to be removed for installation of the proposed facility?
**Response: No trees will need to be removed for the installation of the proposed facility.**

# Attachment #1: Abutters Inquiry

## Kristen Grillo

**From:** Kristen Grillo
**Sent:** Tuesday, March 14, 2023 3:39 PM
**To:** marcelautomotive@aol.com
**Subject:** RE: NVCC - 750 Chase Parkway, WaterburyCT
**Attachments:** CSCU - Bloom Waterbury Installation - Proposed Site Plan.pdf

Hi Marcel - Good afternoon,

Attached please find a preliminary site plan which shows the proposed installation site. Also please find some photos below that show a ground level view of the proposed installation area.

We appreciate you reaching out to discuss the proposed project. If you have any further questions or if any of the material presented requires further clarification, please don't hesitate to call me. Thank you.

Image 1 – Front of Fuel Cell Install Area

Image 2 – Back of Fuel Cell

Image 3 – Left of Fuel Cell Install Area

Image 4 – Right of Fuel Cell

**Kristen Grillo**
Senior Permitting Specialist | East Coast Field Office
Customer Installations Group | North America
(917) 803-4511
Kristen.Grillo@bloomenergy.com

Bloom Energy Corporation HQ
4353 North First Street, San Jose, CA 95134
(408) 543-1500
**www.bloomenergy.com**

---

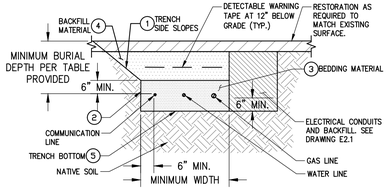
**From:** marcelautomotive@aol.com <marcelautomotive@aol.com>
**Sent:** Monday, March 13, 2023 3:18 PM
**To:** Kristen Grillo <Kristen.Grillo@bloomenergy.com>
**Subject:** NVCC

EXTERNAL EMAIL

---

I have received a letter from your company about a power plant that they want tobuild at the Naugatuck Valley Community College in Waterbury CT
It does not state were on the property they are looking to build it and if there is somewhere we can see it on a map
Thanks
Marcel Rodriguez

# Attachment #2: Concrete Washout & Storm Drain Details




| MINIMUM BURIAL DEPTHS AND CLEARANCES TABLE | | | | | |
|---|---|---|---|---|---|
| UTILITY | MINIMUM BURIAL DEPTH | MINIMUM HORIZONTAL DISTANCE TO LIKE UTILITY | MINIMUM HORIZONTAL DISTANCE TO DIFFERING UTILITY | MINIMUM VERTICAL DISTANCE TO LIKE UTILITY | VERTICAL DISTANCE TO DIFFERING UTILITY |
| COMMUNICATION | 24" | 6" | 12" | 3" | 12" |
| GAS | 24" | 6" | 12" | 6" | 12" |
| WATER | 54" | 6" | 12" | 6" | 12" |

## DETAIL NOTES

1. CONTRACTOR SHALL HIRE A THIRD PARTY SOILS INSPECTION AND TESTING AGENCY TO ASSURE COMPLIANCE OF MATERIALS AND PLACEMENT PROCEDURES WITH DESIGN DRAWINGS, SPECIFICATIONS, AND LOCAL CODES. WORK SHALL INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:
   - –PHOTOGRAPH EXCAVATION BOTTOM
   - –VERIFY SOIL SUITABILITY
   - –VERIFY AND REPORT COMPACTION
   - –SUBMIT INSPECTION REPORTS DATED AND SIGNED BY TESTING AGENCY
2. TESTING SERVICE DOCUMENTATION SHALL INCLUDE THE FOLLOWING:
   - –DAILY RECORDS AND REPORT
   - –TESTING RECORDS AND DATA SHEETS
   - –PHOTOGRAPHIC RECORDS
   - –FINAL REPORT

   ALL RECORDS SHALL AT A MINIMUM BEAR THE PROJECT NAME, LOCATION, DATE, WRITTEN DESCRIPTION OF VISUAL OBSERVATIONS, AND SIGNATURE OF PREPARED OR DESIGNATED AUTHORITY.
3. ALL CLEARANCES ARE EDGE TO EDGE AND NOT CENTER TO CENTER.
4. ANY DEVIATION FROM HORIZONTAL OR VERTICAL UTILITY SEPARATION DISTANCES TO ACCOMMODATE FIELD CONDITIONS SHALL BE SUBMITTED BY THE CONTRACTOR TO BLOOM ENERGY FOR APPROVAL PRIOR TO UTILITY PLACEMENT.

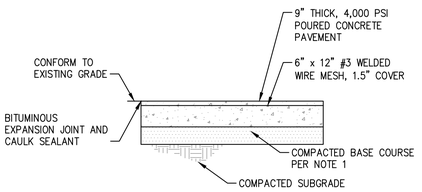
## DETAIL REFERENCE NOTES

1. TRENCH SHALL BE EXCAVATED AND PROTECTED PER OSHA STANDARD 1926 SUBPART P. OPEN TRENCHES SHALL NOT EXCEED OSHA MAXIMUM SIDE SLOPES. CONTRACTOR TO SHORE AND PROTECT ALL VERTICAL EXCAVATIONS AS REQUIRED BY OSHA. TRENCH WALLS SHALL BE VERTICAL FROM BOTTOM OF EXCAVATION TO TOP OF PIPE OR CONDUIT.
2. TRENCH WALLS SHALL BE VERTICAL FROM BOTTOM OF EXCAVATION TO TOP OF PIPE OR CONDUIT BACKFILL.
3. BEDDING MATERIALS SHALL BE PLACED IN 6" MAXIMUM LIFTS AND MATCH ADJACENT DUCT BANK BEDDING MATERIALS WHERE APPLICABLE. ACCEPTABLE BEDDING GRADATIONS ARE:
   a. 3/4" MAXIMUM AGGREGATE BASE.
   b. ASTM C-33-FINE CONCRETE AGGREGATE (WELL GRADED SAND).
   c. ASTM C-33-GRADATION NO. 67 OR NO. 7.
   d. GRADATIONS SIMILAR TO WELL GRADED FINE ROAD BASE MATERIAL, ASTM D-1241 GRADATION C AND D.
4. BACKFILL MATERIALS SHALL BE 3/4" MAX AGGREGATE BASE MATERIAL, ASTM C33 SAND, OR NATIVE SOIL IF APPROVED BY GEOTECHNICAL ENGINEER, AS NOTED PLACE BACKFILL IN 6" MAX. LIFTS AND TO BE COMPACTED TO 95% RELATIVE COMPACTION AT ± 2% OPTIMAL MOISTURE CONTENT PER ASTM D1557. SAND LAYER BELOW CONDUIT SHALL BE A MINIMUM DEPTH OF 3".
5. IF THE BOTTOM OF THE TRENCH IS SOFT AND COMPACTION CANNOT BE ACHIEVED, CONTRACTOR TO CONTACT GEOTECHNICAL ENGINEER FOR SUBGRADE PREPARATION RECOMMENDATIONS.

# UTILITY TRENCH EXCAVATION SPACING & BACKFILL DETAIL

SCALE: NTS

1 / C3.1

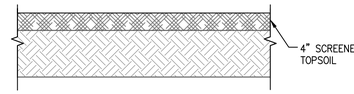



DETAIL NOTES:
1. REFER TO UNDERGROUND/TRENCH CONDUIT AND PIPING DETAIL OR ENERGY SERVER AND ANCILLARY PRECAST PAD GRADING FOR COMPACTED BASE COURSE REQUIREMENTS.

# CONCRETE RESTORATION

SCALE:

2 / C3.1




1. ALL DISTURBED LANDSCAPE AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE PERMANENT LANDSCAPE RESTORATION AND RESEEDING SPECIFICATIONS ON THIS SHEET.

## PERMANENT LANDSCAPE RESTORATION AND RESEEDING SPECIFICATIONS (AFTER CONSTRUCTION)

1. SITE PREPARATION
   A. BRING AREA TO BE SEEDED TO REQUIRED GRADE. A MINIMUM OF 4" OF TOPSOIL IS REQUIRE.
   B. PREPARE SEEDED BY LOOSENING SOIL TO A DEPTH OF 4 INCHES.
   C. REMOVE ALL STONES OVER 1 INCH IN DIAMETER, STICKS AND FOREIGN MATTER FROM THE SURFACE.
   D. LIME TO PH OF 6.5.
   E. FERTILIZER: USE 5-10-5 (NPK) OR EQUIVALENT. APPLY AT RATE OF 4 LBS/1000 SF.
   F. INCORPORATE LIME AND FERTILIZER IN THE TOP 4 INCHES OF TOPSOIL.
   G. SMOOTH AND FIRM THE SEEDED.
2. SEE MIXTURE FOR USE ON LAWN AREA:
   PROVIDE FRESH, CLEAN, NEW-CROP SEED MIXED IN THE PROPORTIONS SPECIFIED FOR SPECIES AND VARIETY AND CONFORMING TO FEDERAL AND STATE STANDARDS.
   LAWN SEED MIX: (APPLY AT RATE OF 5 TO 6LBS PER 1000SF)

   SUN AND PARTIAL SHADE:

| AMOUNT BY: WEIGHT SPECIES OR VARIETY | MINIMUM% PURITY | GERMINATION |
|---|---|---|
| 50% KENTUCKY BLUE GRASS* | 95% | 80% |
| 20% PERENNIAL RYE | 98% | 90% |
| 30% CREEPING RED FESCUE | 97% | 85% |
| 100% | | |

   *MINIMUM 2 (EQUAL PROPORTIONS) VARIETIES AS LISTED IN CORNELL RECOMMENDATIONS FOR TURFGRASS.

   SUN AND PARTIAL SHADE:

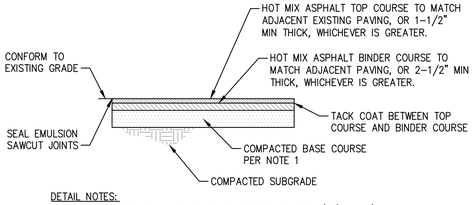
| AMOUNT BY: WEIGHT SPECIES OR VARIETY | MINIMUM% PURITY | GERMINATION |
|---|---|---|
| 50% KENTUCKY BLUE GRASS** | 95% | 80% |
| 20% PERENNIAL RYE | 98% | 90% |
| 35% CREEPING RED FESCUE | 97% | 85% |
| 20% CREEPING RED FESCUE | 97% | 85% |
| 100% | | |

   **SHADE TOLERANT VARIETY
3. SEEDING
   A. APPLY SEED UNIFORMLY BY CYCLONE SEEDER CULTI-PACKER OR HYDRO-SEEDER AT RATE INDICATED.
   B. ALL SEEDED AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS:
      - A UNIFORM BLANKET OF STRAW APPLIED AT A RATE OF 2 TONS/ACRE MIN., TO BE APPLIED ONCE SEEDING IS COMPLETE.
      - WOOD FIBER CELLULOSE APPLIED WITH SEED MIX BY HYDROSEEDER AT RATE OF 2,000 LBS/ACRE.
   C. ALL SEEDED SLOPES 3:1 OR GRATER SHALL BE PROTECTED FROM EROSION WITH JUTE MESH OR APPROVED EQUAL.
   D. IRRIGATE TO FULLY SATURATE SOIL LAYER, BUT NOT TO DISLODGE PLANTING SOIL.
   E. UNLESS OTHERWISE DIRECTED IN WRITING, SEED FROM MARCH 15TH TO JUNE 15TH AND FROM AUGUST 15TH TO OCTOBER 15TH.

# LANDSCAPE RESTORATION

SCALE:

3 / C2.1

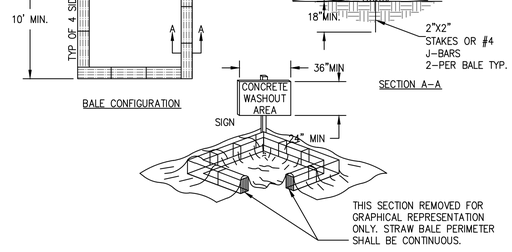



DETAIL NOTES:
1. BASE COURSE SHALL BE CLASS 2 AGGREGATE BASE (3/4" MAX) COMPACTED TO 95% RELATIVE COMPACTION. THICKNESS SHALL MATCH EXISTING THICKNESS OR 6", WHICHEVER IS GREATER.
2. ASPHALT BINDER COURSE IN ACCORDANCE WITH CURRENT APPLICABLE NATIONAL, STATE AND LOCAL CODES.

# ASPHALT RESTORATION

SCALE:

4 / C3.1

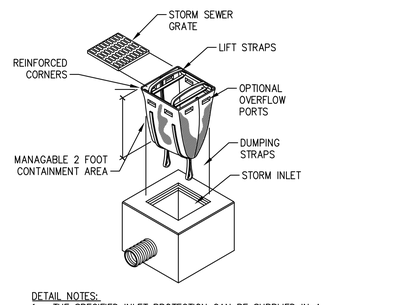



DETAIL NOTES:
1. FACE SIGN TOWARDS NEAREST STREET OR ACCESS POINT.
2. CONCRETE WASHOUT SHALL BE LOCATED BEHIND THE CURB AND 50 FT. MINIMUM FROM DRAINAGE INLETS OR WATERCOURSES AND IN A LOCATION THAT IS EASILY ACCESSIBLE BY CONCRETE TRUCKS.
3. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
4. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
5. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL. THIS INCLUDES REPLACEMENT OF THE 60 MIL POLYETHYLENE SHEETING.
6. CONTRACTOR SHALL REMOVE ACCUMULATION OF SAND AND AGGREGATE AT LEAST WEEKLY AND DISPOSE OF PROPERLY.

# CONCRETE WASHOUT

SCALE:

5 / C3.1




DETAIL NOTES:
1. THE SPECIFIED INLET PROTECTION CAN BE SUPPLIED IN A VARIETY OF SIZES. CONTRACTOR TO SELECT THE APPROPRIATE DRAINAGE INLET PROTECTION AS REQUIRED.

# STORM DRAIN PROTECTION

SCALE:

6 / C3.1

Bloomenergy
4353 N. FIRST STREET, SAN JOSE, CA 95134
t: (408) 543-1500 f: (408) 543-1501
www.bloomenergy.com



Bloomenergy
4353 N. FIRST STREET
SAN JOSE, CA 95134
t: (408) 543-1500

ENGINEER OF RECORD
CARSON TURNER, P.E.
LICENSE #: C53718

CUSTOMER SITE

CONNECTICUT STATE COLLEGES & UNIVERSITIES
750 CHASE PKWY
WATERBURY, CT 06708

CSCU

| RELEASE HISTORY | | |
|---|---|---|
| REV | ISSUE PURPOSE | DATE |
| – | INITIAL RELEASE | 05/05/2023 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| | |
|---|---|
| DESIGNED BY SCOTT BARD | REVIEWED BY KATE TAYLOR |
| DRAWN BY SHIVANAND ANNIGERI | APPROVED BY CARSON TURNER |

SHEET TITLE
DETAILS SHEET 1

DRAWING NUMBER
C3.1

BLOOM ENERGY DOCUMENT NUMBER
DOC-1015258

THIS DRAWING IS 24" X 36" AT FULL SIZE

SITE ID: CTU006.0 | SHEET 08 OF 17

March 14, 2023 12:13:19 PM