



County of Sussex, Virginia

Joint Public Hearing of the **PLANNING COMMISSION** & **THE BOARD OF SUPERVISORS**

Monday, May 3, 2021
6 p.m.

Planning Commission

J. Lafayette Edmond, Chairman
Terry Massenburg, Vice Chair
Kevin Bracy
Brenda Burgess
Frank Irving
Roger King
Dennis Mason
Andrew Mayes
Rudolph Shands
Robert Young, Jr.

Board of Supervisors

Susan B. Seward, Chair
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Rufus E. Tyler, Sr.
Steve White, Tie Breaker

*Sussex Central Elementary School Gymnasium
21392 Sussex Drive
Stony Creek, Virginia 23882*

SUSSEX COUNTY
BOARD OF SUPERVISORS/PLANNING COMMISSION
JOINT PUBLIC HEARING
Monday, May 3, 2021 – 6:00 p.m.
Sussex Central Elementary School Gymnasium
21392 Sussex Drive, Stony Creek, Virginia 23882

AGENDA

- Item 1. Call to Order/Determine Quorum
- (a) Chairman, Planning Commission
 - (b) Chairman, Board of Supervisors
- Item 2. The Invocation
- Item 3. The Pledge of Allegiance
- Item 4. Agenda Amendment(s)
- Item 5. Approval of Agenda
- (a) Planning Commission
 - (b) Board of Supervisors
- Item 6. Motions to Enter Public Hearing
- (a) Planning Commission
 - (b) Board of Supervisors
- Item 7. Public Hearing Items
- (a) Zoning Amendment #2021-01, Mike's Auto & Truck Repair, LLC, applicant
 - Public Comments
 - Planning Commission Comments
 - Board Comments
 - (b) Zoning Amendment #2021-02, Forefront Power, applicant
(Applicant has requested this application be deferred until the Planning Commission's June meeting.)
 - Planning Comments
 - Board Comments
 - (c) Conditional Use Permit Application #2021-01, Shands Energy Center, LLC, applicant
 - Public Comments
 - Planning Comments
 - Board Comments
- Item 8. Return to Regular Session
- (a) Planning Commission
 - (b) Board of Supervisors
- elect Chair*

Item 9. Action on Public Hearing Items

- (a) Planning Commission**
- (b) Board of Supervisors**

Item 10. Citizens' Comments

Item 11. Adjournment

- (a) Planning Commission**
- (b) Board of Supervisors**

STAFF REPORT

APPLICATION SUMMARY:

Project: Mike's Auto and Truck Repair

Location: The property is located on the east side of Rt. 301 (Blue Star Highway) directly across from the intersection of Blue Star Highway and Rt. 646 (S. Halifax Road)

Parcel Record Numbers: 147-A-3

Proposal: Relocate and expand Mike's Auto and Truck Repair currently located at 649 Blue Star Highway in Jarratt

Applicant: Mike's Auto and Truck Repair, LLC
300 Blue Star Highway
Jarratt, VA 23867

APPLICATION:

The applicant, Mike's Auto and Truck Repair, LLC under ZA #2021-01 seeks to rezone tax parcel number 147-A-3 containing 1.07 acres from B-1, Limited Business to B-2, General Business to accommodate an auto and truck repair shop. The property is located on the east side of Rt. 301 (Blue Star Highway) directly across from the intersection of Blue Star Highway and Rt. 646 (S. Halifax Road).

ELECTION DISTRICT:

Henry Election District

LOCATION:

The proposed location for the auto and truck repair shop is on a parcel with 1.07 acres, located within the Jarratt Planning Area as designated by the County's Comprehensive Plan, and currently maintains an agricultural/forestall open space designation. To the north and to the south are predominately forested agricultural lands. There current site of Mike's Auto and Truck Repair is directly across Rt. 301 and a church is located slightly south of the site. The site is approximately a mile north of the Jarratt town limits.

BACKGROUND:

The applicant currently has an auto repair shop across from the subject property. The subject property is currently vacant. The applicant seeks to expand his auto repair business to this location.

DESCRIPTION:

The applicant is requesting rezoning to the General Business District (B-2) to relocate and expand his existing automobile service station. The applicant purchased the subject property December 2020 and proposes to develop .71 acre of the parcel to build a larger shop approximately 2,400 square feet.

The parcel is currently zoned Limited Business District (B-1). The B-1 zoning district does not allow auto sales and service.

COMPREHENSIVE PLAN REVIEW:

The current Comprehensive Plan land use designation for this property is Agricultural/Forested/Open Space. Appropriate uses for the Agricultural land use designation include forestry, passive recreation, and other conservation uses, as well as incidental residential use. The overall density of these uses should be kept at a relatively low level by maintaining a minimum lot area of one acre.

ORDINANCE REVIEW:

The current zoning designation for this property is B-1. The district is intended to establish and protect a business district that will serve the surrounding residential districts. Traffic and parking congestion is to be held to a minimum to protect and preserve property values in surrounding residential districts.

The proposed rezoning designation for this property is B-2. The use is classified as auto sales and service, and is not permitted in the B-1 zone. The B-2 district is intended for the conduct of general business to which the public requires direct and frequent access, but is not characterized either by constant heavy trucking, other than stocking and delivery of light retail goods, or by any nuisance factors, other than occasioned by incidental light and noise of congregation of people and passenger vehicles.

STAFF CONCLUSIONS:

Strengths:

1. The use will allow a service providing asset in the community to continue and expand.
2. The property has access via a primary roadway, Rt. 301.
3. The property is currently zoned for commercial uses.

4. The site is less than a mile from the Town of Jarratt where other commercial uses are located in and around the town limits, including Dollar General, a car dealership, Jarratt Convenience Store, and a service station.

Weaknesses:

1. The site plan does not show any screening and/or fencing for the over-night storage of vehicles.

STAFF RECOMMENDATION:

Staff recommends approval of the rezoning contingent upon the applicant providing screening and/or fencing for the over-night storage of vehicles.

ATTACHMENTS:

- Application
- Deed
- Proposed Site Plan
- Site location maps





APPLICATION FOR A CHANGE OF ZONING DISTRICT CLASSIFICATION

COUNTY OF SUSSEX
P.O. Box 1397, Sussex, VA 23884

The undersigned owner of the following described property hereby applies for a change of zoning classification from:

Mike's Auto and Truck Repair LLC

1. PROPERTY LOCATION (advertising description) -

(Example - South line Route 33 approximately 1,000 ft. west of Route 444)

Blue Star Hwy (Route 301) directly across from intersection of N. Halifax Rdt + Blue Star Hwy.

2. DESCRIPTION OF PROPERTY

Tax Map Number 147-A-3
Subdivision _____ Section _____ Block _____ Lot _____

If property is not a recorded subdivision, attach one copy of double-spaced typed or printed description of the property. All bearings and distances (metes and bounds) must be stated. Provide two copies of that plat showing bearings and distances (metes and bounds). Acreage 1.07 Ac. (If more than one zoning classification is requested - state the acreage of each)

3. PROPOSED USE (Please attach a written description of the proposed use of the property along and submit a preliminary site plan and/or subdivision plat along with the written description). Auto + Truck Repair Shop

4. DEED RESTRICTIONS _____

FEES

\$500 + additional per acreage charge as follows:

To: A-1	No additional charge
To: R-R, R-E	\$20 per acre
To: R-1	\$30 per acre
To: B-1, B-2, B-3	\$40 per acre
To: I-1, I-2	\$50 per acre
To: Planned Unit Development (PUD) or any Manufactured Home Park District	\$60 per acre

6. NAME AND ADDRESS OF OWNER OF RECORD

Name Michael Ward
Address 300 Blue Star Hwy., Jarratt, VA 23867

If applicant is not owner of property, a copy of the purchase agreement must be provided.

The undersigned owner states that no application for a change in zoning district classification of the above property, or any part thereof, has been acted upon by the Board of Supervisors within twelve (12) months prior to the date of this application.

The undersigned owner authorizes the entry onto his property by the Planning Commission members during the normal discharge of their duties in regard to the above application.

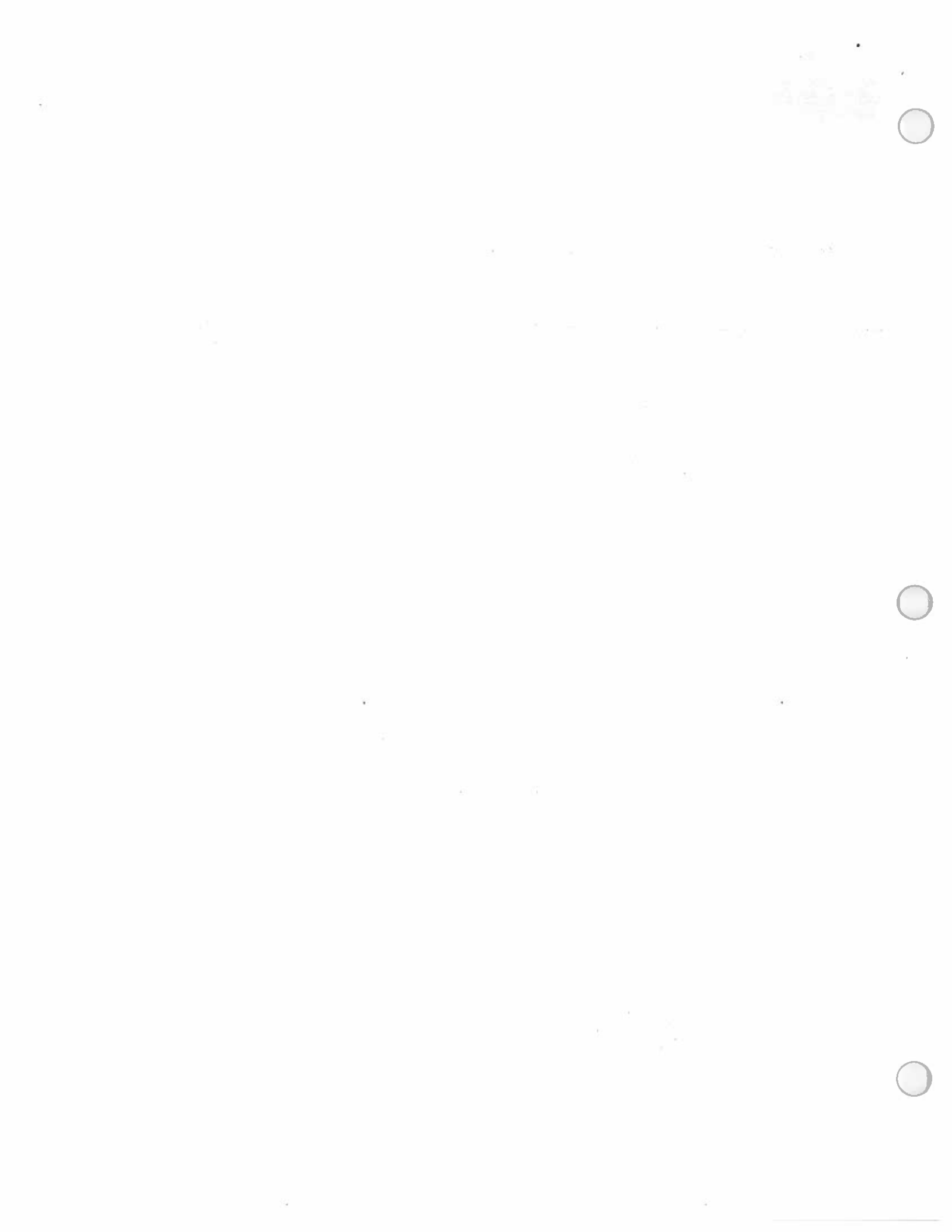
Owner or Contract Purchaser*

Name: Michael Ward
Address: 300 Blue Star Hwy
Jarratt VA 23867
Phone: 804-300-6360

Representative

Name: _____
Address: _____
Phone: _____
Case No: _____
Date of Filing: _____
Fee Paid: _____

*Written Approval from owner required if property subject to contract purchase.



Purchase Price: \$12,500.00
Assessed Value: \$17,700.00

THIS DEED made this 18th day of December 2020, by and between **MARTHA OWEN WELLS**, the Grantor herein, and **MICHAEL ALBERT WARD, JR.**, the Grantee herein, whose address is 18054 Cabin Point Road in Carson, Virginia 23830.

WITNESSETH

For and in consideration of the sum of Ten [\$10.00] Dollars and other good and valuable consideration, the receipt of which is hereby acknowledged, the Grantor does hereby grant and convey, with GENERAL WARRANTY and ENGLISH COVENANTS of title, unto the said Michael Albert Ward, Jr., in fee simple, all the following described property, to-wit: .

Tax Map Number—147-A-3

ALL that certain lot, piece, or parcel of land, lying and being situated in Henry Magisterial District, Sussex County, Virginia, and being bounded and described as follows: Beginning at Virginia Electric & Power Co. pole No. J509, which said pole lies on the East side of U.S. Highway No. 301; thence in a southerly direction along said highway 420 ft. to an iron stake; thence in an easterly direction 210 ft. to an iron stake; thence in a northerly direction 420 ft. to an iron stake; thence in a westerly direction 210 ft. to the point of beginning.

BEING in all respects the same property as was conveyed to Charles F. Owen by deed dated March 7, 1946 from James David Brown of record in the Clerk's Office of the Circuit Court of Sussex County in Deed Book 41 at page 544.

AS A MATTER OF INFORMATION, Charles F. Owen died testate on August 11, 1983, leaving the property to Samuel A. Owen, Sr. as evidenced by page 3 of his Last Will and Testament of record in the aforesaid Clerk's Office in Will Book 32 at page 502. Samuel A. Owen, Sr. died testate on October 14, 2003, leaving the property to Martha Owen Wells as evidenced by page 2 of his Last Will and Testament of record in the aforesaid Clerk's Office in Will Book 56 at page 237.

This property is conveyed subject to any and all liens, easements, restrictions, reservations, and rights of way affecting said property.

Witness the following signature and seal, to-wit:

Martha Owen Wells (SEAL)
Martha Owen Wells

COMMONWEALTH OF VIRGINIA
COUNTY/CITY OF Emporia, TO-WIT:

This is to certify that the foregoing deed was signed and acknowledged before me, in my jurisdiction, by Martha Owen Wells on this 18th day of December 2020.

My Commission Expires: May 31, 2024
Emily D. Johnson
Notary Public



7, III, PLLC

VIRGINIA: In the Clerk's Office of the Circuit Court of Sussex County. The foregoing instrument was this day presented in the office aforesaid and is, together with the certificate of acknowledgment annexed, admitted to record this 21st day of December, 2020 at 3:11 P. M.

The tax imposed by §58.1-802 of the Code has been paid in the amount of \$ 18.00.

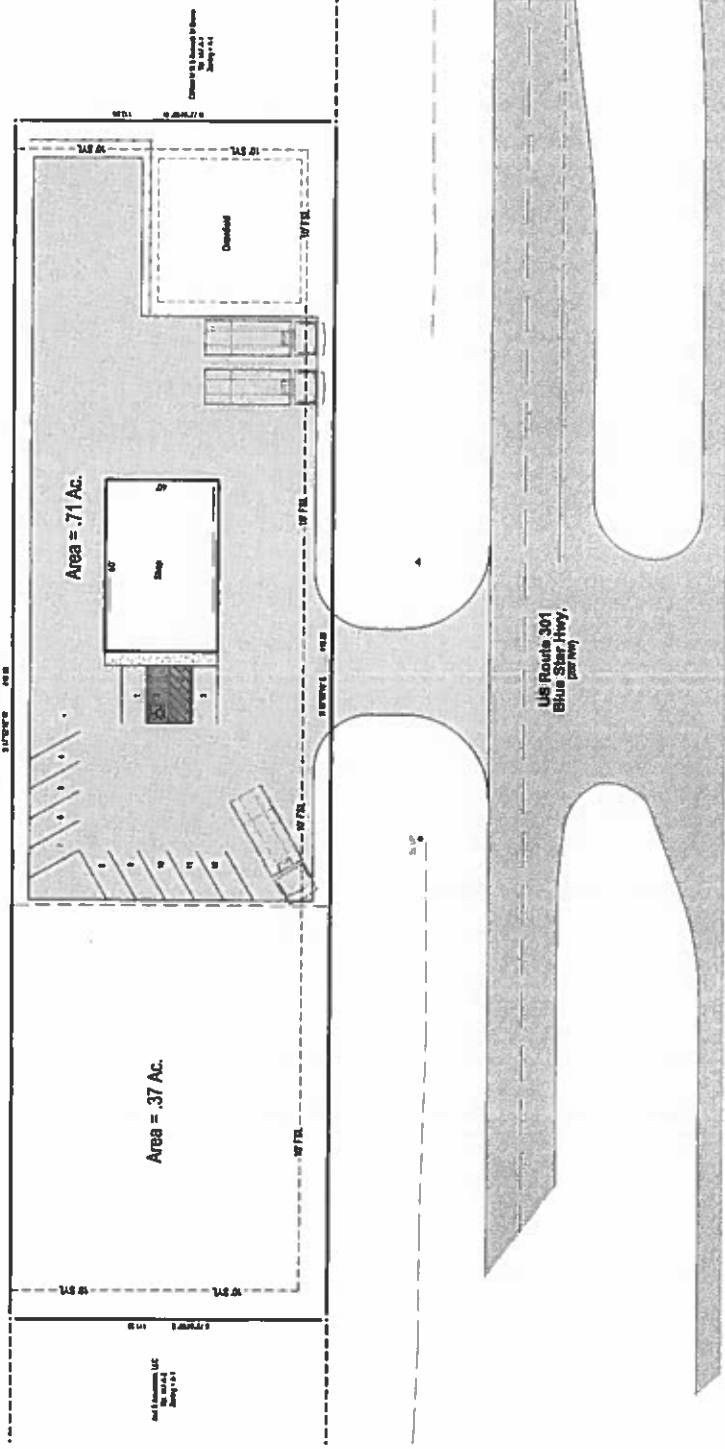
Teste: Wayne W. ... Clerk

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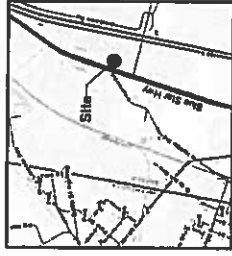
Mike's Auto & Truck Repair

New Shop

Blue Star Hwy.
Jarratt, VA 23867



Proposed Site Plan
Scale: 1" = 20'






















Vicinity Map
No Scale

- General Notes:**
- Owner & Developer: Mike's Auto & Truck Repair, LLC
1450 Blue Star Hwy.
Jarratt, VA 23867
 - Site Information: 3.00 Acres
3.00 Acres
1000 sq ft
1000 sq ft
 - Site Address: 1450 Blue Star Hwy.
Jarratt, VA 23867
 - Zoning: R-1
 - Utility District: None
 - Existing Structure: None
 - Existing Parking: None
 - Lot Coverage: None
 - Lot Dimensions: 100' x 100'
 - Front Setback: 10'
 - Side Setback: 10'
 - Back Setback: 10'
 - Front Yards: 10'
 - Side Yards: 10'
 - Back Yards: 10'
 - Front Porch: 10'
 - Side Porch: 10'
 - Back Porch: 10'
 - Front Porch: 10'
 - Side Porch: 10'
 - Back Porch: 10'

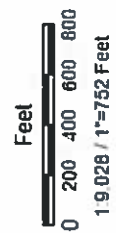


County of Sussex, Virginia

Legend

-  County Boundary
-  Building Footprints
-  Building Footprints
-  Outbuilding
-  Primary
-  Parcels
-  Zoning
-  Zoning
-  A-1, General Agriculture
-  R-R, Rural Residential
-  R-1, General Residential
-  R-2, Manufactured/Mobile Home Park
-  B-1, Limited Business
-  B-2, General Business
-  B-3, Shopping Center
-  I-1, Limited Industrial
-  I-2, General Industrial
-  PUD - Planned Unit Development
-  Hidden Roads 18056

Map Printed from Sussex



Date: 4/27/2021

Title:

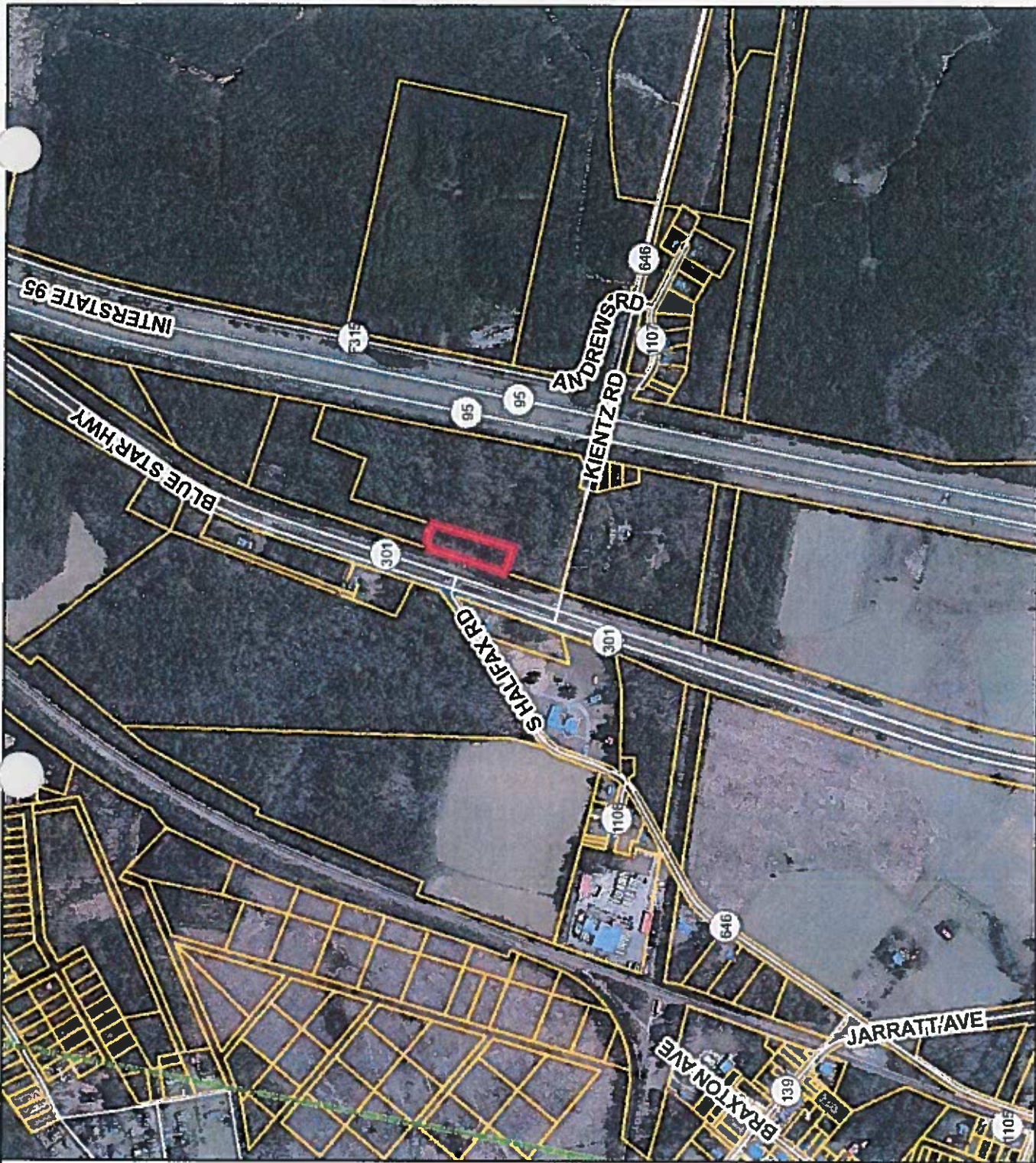
DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Sussex County is not responsible for its accuracy or how current it may be.



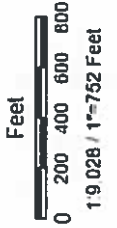
County of Sussex, Virginia

Legend

-  County Boundary
-  Building Footprints
-  Building Footprints
-  Building Footprints
-  Outbuilding
-  Primary
-  Parcels
-  Hidden Roads 18056



Map Printed from Sussex



Title:

Date: 4/27/2021

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Staff Report
Shands Energy Center
Application for Amendments to Conditional Use Permit #2019-04
Sussex County, Virginia

Report Date: April 16, 2021

Planning Commission and Board of Supervisors Joint Meeting Date: May 3, 2021

APPLICATION SUMMARY:

Project: Shands Energy Center

Location: The site in question located on the north side of Route 40 (Sussex Drive) adjacent to an existing Dominion Energy Substation.

Parcel Record Numbers: 64-A-21 and 64-A-23

Proposal: Amendments to Conditional Use Permit #2019-04

Application Submitted: April 12, 2021

Applicant(s): Shands Energy Center, LLC
c/o East Point Energy, LLC
200 Garrett Street, Suite J
Charlottesville, VA 22902

Representative: Richard Russell
434-465-6210

Parcel Owner(s): Ruth Pride

BACKGROUND:

The Board of Supervisors previously considered and approved the Application for Conditional Use Permit (CUP) #2019-04 on July 16, 2020. (A copy of the approval letter and conditions are attached for reference.)

As project development has progressed, the project parameters have changed and are now in conflict with the approved CUP conditions. As required by the Zoning Ordinance, the Applicant submitted an Application for Amendments to Conditional Use Permit #2019-04 that was deemed complete on April 14, 2021 (Attachment A).

PROJECT DESCRIPTION:

The Applicant received a CUP on July 16, 2020 to construct and operate a grid scale stand-alone battery energy storage facility on approximately 2-3 acres on parcel 64-A-21 just behind an existing Dominion Energy Substation. (approximately 300 feet off Route 40).

Batteries will be stored in approximately twenty-one (21) modular containers. The containers will be anchored to a concrete pad. The concrete pad will be constructed in adherence to the building code. The containers will be designed to contain any leakage from worn batteries. No diversion dikes will need to be constructed. The containers will be transported to the site via flatbed trucks.

For security and public safety, the applicant will construct a seven (7) foot high galvanized security fence around the perimeter of the battery storage area. Security lighting will be installed. The applicant is required to provide specialized training to the County's EMS staff to deal with possible incidents.

The CUP conditions being requested for amendment are addressed under condition #6, specifically 6(a) and 6(d):

- a. Battery and energy storage facilities will be constructed, maintained, and operated in accordance with national industry standards and regulations including the National Electrical Code, International Fire Code of the International Code Council, and the National Fire Protection Association Fire Code. In the event of a conflict between the national industry standards and these Conditions, the national industry standards shall control so that as technology advances, updated technology may be used by the Applicant.
- b. Lithium-Ion battery cells in a Battery Energy Storage System (BESS) with a Battery Management System (BMS) will be used.
- c. The BESS enclosure or cabinet will provide a secondary layer of physical containment to the batteries and be equipped with cooling, ventilation, and fire suppression systems.
- d. Each individual battery enclosure will have 24/7 automated fire detection and extinguishing technology built in. The BMS will monitor individual battery module voltages and temperatures, container temperature and humidity, off-gassing of combustible gas, fire, ground fault and DC surge, and door access and be able to shut down the system before Thermal Runaway takes place.
- e. The BESS will be placed on an appropriate foundation located in accordance with the Site Plan.
- f. Access to all batteries and electrical switchgear will be from the exterior for normal operation and maintenance. Access to the container interior will not be permitted while the system is in operation. Access shall not conflict with NFPA 855.
- g. Qualifications and experience from selected developers and integrators will be provided including disclosure of fires or other hazards at facilities.

- h. Safety testing and failure modes analysis data from selected developers and manufacturers will be provided.
- i. Any applicable product certifications will be provided.
- j. The Applicant or any future owner shall be liable for contaminants escaping battery cells or the BESS and shall be responsible for all remediation and the costs of remediation in a timely manner.
- k. Applicant will collaborate with Sussex County first responders to utilize technology-appropriate best practices for safe energy storage systems including, but not limited to, the following:
 - i. Adequate access/egress for the first responders;
 - ii. Adequate facility signage (on battery chemistry and person to contact);
 - iii. Accessible Safety Data Sheets;
 - iv. System-specific emergency response plans;
 - v. Training for first responders on the type of system, potential hazards and risks, and system-specific emergency response plans;
 - vi. Adequate supply of fire suppression appliances for the fire fighters;
 - vii. Adequate facility signage on Hazardous Materials present in the vicinity;
 - viii. Emergency lighting;
 - ix. Battery Racks installed according to NFPA 855 standards to make it easier to isolate a failed battery from the rest;
 - x. Sufficient shutdown and isolation capability including a recloser.
 - xi. System-appropriate sensors and alarms;
 - xii. Air ventilation and fire suppression systems; and
 - xiii. Drainage for water runoff, if applicable.
- l. The Applicant or any future owner shall conduct monthly on-site inspections of the battery units and report on their condition.
- m. In the event the Code of Virginia is amended on or before July 1, 2022 to authorize contributions to localities for standalone energy storage projects through a conditional use permit in the manner that Va. Code Section 15.2-2288.8 allows as of the time of this Permit Application for solar photovoltaic projects, then Applicant agrees to make a one-time \$50,000 contribution to the County for use in fire and rescue capital projects within one year of the Project Commercial Operation Date.

PROPOSED AMENDMENTS

The applicant is seeking to amend condition 6(a) to add clarity to the required national and state codes that apply to the project, and condition 6(d) to add the word “manual” to the fire extinguishing technology requirement as described below.

Condition 6(a). The applicant states that the references to state and national code in CUP condition (a) under section 6 on battery and energy storage facilities present a conflict that needs clarification. The applicant proposes the following amendments:

- a. Battery and energy storage facilities will be constructed, maintained, and operated in accordance with all adopted codes under the Virginia Uniform Statewide Building Code, national industry standards and regulations including the Virginia's currently adopted version of the National Electrical Code, Virginia's Statewide Fire Prevention Code, and Virginia's Uniform Statewide Building Code (USBC), International Fire Code of the International Code Council, and the National Fire Protection Association Fire Code. ~~In the event of a conflict between the national industry standards and these Conditions, the Virginia Statewide Fire Prevention Code and Virginia Uniform Statewide Building Code (USBC) national industry standards shall control shall control to match the standards currently adopted statewide, so that as technology advances, updated technology may be used by the Applicant.~~

Condition 6(d). The applicant states that since the CUP was approved new safety procedures have evolved. The applicant states that "automated extinguishing technology" requires the use of "air tight" containers using clean agents to extinguish a fire. The applicant has stated that this type of technology increases the risk of explosion due to gas buildup upon opening the container to extinguish any remaining fire. They recommend using ventilated containers with monitors for smoke, fire and gas and letting the fire burn out before using any extinguishing technique. Fire fighters would then connect hoses for manual fire extinguishing for any remaining fire. The applicant proposes the following amendments to CUP condition (d) under section 6 on battery and energy storage facilities:

- d. Each individual battery enclosure will have 24/7 automated fire detection and manual extinguishing technology built in. The BMS will monitor individual battery module voltages and temperatures, container temperature and humidity, off-gassing of combustible gas, fire, ground fault and DC surge, and door access and be able to shut down the system before Thermal Runaway takes place.

STAFF COMMENTS AND ANALYSIS

Condition 6(a). Proposed amendments to CUP condition (a) under section 6 on battery and energy storage facilities.

This condition was approved along with the original CUP and is still valid today. In practice, if the Building Official, Zoning Administrator, or other staff find a conflict among quoted standards, the most stringent standard applies. However, the staff and the applicant has agreed upon the revised language. Specifically, the Virginia Uniform Statewide Building Code is the appropriate reference in this case and will apply any relevant national standards via the adopted code language.

Condition 6(d). Proposed amendments to CUP condition (d) under section 6 on battery and energy storage facilities.

At the time of CUP application, the applicant proposed 21 battery storage containers with Clean Agent Suppression (automatic fire extinguishing technology). The applicant stated:

- They believe the most efficient fire suppression plan for this project is using halon alternative, clean agent, chemical suppressants (Attachment B. Spec Sheets). Each container is installed with ~7 clean agent canisters.
- The clean agents work to rapidly cool the temperature in a container from thermal runaway as well as rapidly replace combustible gases to prevent a fire from continuing to grow.
- Using water would also lead to a total loss of the system, whereas the clean agent targets the thermal runaway at an earlier stage.
- All systems are equipped with HVAC systems to keep the cells within operating range. Should there be any thermal runaway from the cells, the cells would either be isolated shut off, or the clean agent would detect the runaway, discharge the gas, and lower the cell temperature. Once a clean agent suppressant has been released, the recommended plan of action is to leave the container be, as opening up the container could introduce more oxygen and exacerbate the fire. To manage the other containers, the circuit breaker would be opened to shut the entire system off.
- Containers are designed to keep any fires isolated within that one container. The containers are spaced so that fires should not spread to adjacent containers.
- Additionally, containers are unlikely to “explode” if they are left alone. Opening the containers and introducing more oxygen to the fire can cause more danger. This is a safety measure that would be addressed during the first responder training.

The safety protocols included:

- Sensors monitor temperature, humidity, gasses, etc.
- If high temperature or gas is detected
 - the ventilation would be closed so the clean agent suppressant could be automatically sprayed to lower the temperature, and the container would be automatically turned off.
 - the cells will be automatically turned off.
 - If gas or fire is still detected, the ventilation would be closed so the clean agent suppressant could be automatically sprayed to lower the temperature, and the container would be automatically turned off.
- If turning off the cells stopped the problem, the owner would remove and replace the cells.
- If the container is turned off, the owner would remove and replace the container.

Based on more recent studies, the applicant now states:

Dominion does not allow the installation of these packaged automatic fire suppression systems. They have significant concerns with the packaged automatic fire extinguishing systems (such as clean agent or aerosol systems) that are commonly installed by Battery Energy Storage System vendors since they could increase the risk of an explosion. These systems require an enclosure and the installed exhaust ventilation be turned off, so that the fire extinguishing agent will stay within the enclosure and not be discharged from the battery enclosure. Turning off the ventilation system is problematic, particularly if the fire is extinguished, since it will allow for the buildup of

flammable gasses and increase the risk of an explosion. Additionally, there are extinguishing agents (aerosols) that rely on a small pyrotechnic charge to discharge agent, which could serve as an ignition source for the flammable gas concentration.

Thermal runaway is when a battery cell exhibits a significant temperature rise and can release a flammable gas. That gas could cause a fire or an explosion. Once a thermal runaway event is detected, we immediately activate an exhaust ventilation system (designed in accordance with NFPA 69) to remove the flammable gas produced and avoid confinement of that gas which could cause an explosion. The battery containers are also equipped with deflagration vents on the roof (designed in accordance with NFPA 68) as a second layer of protection that are designed to dissipate the energy from an explosion in a safe direction (upward) rather than towards any first responders or Dominion personnel.

The safety protocols now are:

- Sensors monitor temperature, humidity, gasses, etc.
- If high temperature or gas is detected
 - the cells will be automatically turned off.
 - If gas or fire is still detected, the container would be automatically turned off.
- If turning off the cells stopped the problem, the owner would remove and replace the cells.
- If the container is turned off, the owner would remove and replace the container.

STAFF CONCLUSIONS

Strengths

The professionals representing the applicant and Dominion Energy are experts on the standards and best practices.

Weaknesses

Since battery storage is a new and evolving technology upon which staff has limited examples, there are no identified weaknesses at this time.

STAFF RECOMMENDATION

Staff recommends approval; however, staff cautions the Commission and Board to fully understand the changes being proposed and suggests seeking independent expert advice in the field, if deemed necessary.

Attachments:

- A – CUP approval letter and existing conditions.
- B – Amended Application documents to CUP #2019-04, submitted April 12, 2021.
- C – Spec Sheets
- D – Site Map

Board of Supervisors

Susan B. Seward, Chairperson
Wayne O. Jones., Vice Chairman
C. Eric Fly, Sr.
Marian D. Johnson
Debbie P. Jones
Rufus E. Tyler, Sr.



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Larry Hughes
Interim County Administrator
lhughes@sussexcountyva.gov

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Facsimile: (434) 246-6013
www.sussexcountyva.gov

August 3, 2020

Mr. Andrew Foukal
Shands Energy Center, LLC
(East Point Energy, LLC)
200 Garrett Street, #J
Charlottesville, Virginia 22902

RE: Approval of CUP #2019-04
Shands Energy , LLC (East Point Energy, LLC)

Dear Mr. Foukal:

At its regular meeting held on July 16, 2020, the Sussex County Board of Supervisors voted to approve Conditional Use Permit Application #2019-04. The aforementioned application is approved subject to the following conditions:

1. The Applicant will develop the Project Site in substantial accord with the Conceptual Site Plan dated February 19, 2020 included with the application and these conditions as determined by the Zoning Administrator. Significant deviations or additions including any enclosed building structures to the Preliminary Site Plan will require review and approval by the Planning Commission and Board of Supervisors.
2. Site Plan Requirements. In addition to all Virginia site plan requirements and site plan requirements of the Zoning Administrator, the Applicant shall provide the following plans for review and approval for the Project prior to the issuance of a building permit:
 - a. *Construction Management Plan.* The Applicant shall prepare a "Construction Management Plan" for each applicable site plan for the project, and each plan shall address the following:
 - i. Traffic control methods (in coordination with the Virginia Department of Transportation [VDOT] prior to initiation of construction): i. Lane closures, ii. Signage, and iii. Flagging procedures.
 - ii. Site access planning. Directing employee and delivery traffic to minimize conflicts with local traffic.
 - iii. Site security. The Applicant shall implement security measures prior to the commencement of construction on the Project Site.
 - iv. Lighting. During construction of the project, any temporary construction lighting shall be positioned downward, inward, and shielded to eliminate glare from all adjacent

properties. Emergency and/or safety lighting shall be exempt from this construction lighting condition.

- v. **Water Supply.** In the event that on-site wells are used during construction of the facility, the Applicant shall prepare and submit for review to the County hydrogeologic information necessary for the County to determine the potential impact to pre-existing users for the same aquifer proposed to be used for the solar energy facility and a plan to mitigate impacts to pre-existing users within the area of impact of the Project. If the County, in consultation with the Department of Environmental Quality, determines that the installation of a well will not adversely affect existing users, the Applicant may proceed with well construction in compliance with approval by the Department of Environmental Quality. At the end of the construction of the Battery Energy Storage facility, the well shall not thereafter be used except only for personal toilet and lavatory facilities as required by the Uniform Statewide Building Code for operations and maintenance buildings.
- b. **Construction Mitigation Plan.** The Applicant shall prepare a "Construction Mitigation Plan" for each applicable site plan for the project, and each plan shall address the effective mitigation of dust, burning operations, hours of construction activity, access and road improvements, and handling of general construction complaints as set forth and described in the application materials and to the satisfaction of the Zoning Administrator. Damage to public roads from construction activities shall be repaired with approval from VDOT as soon as possible and not postponed to construction completion. A construction mitigation bond (or other security) will be posted for the construction portion of the project.
 - i. Construction activity on-site shall be permitted Monday through Sunday in accordance with the provisions of the County's Noise Ordinance.
 - ii. During construction, the setbacks may be used for staging of materials and parking. No material and equipment laydown area, construction staging area, or construction trailer shall be located within 200 feet of any property containing a residential dwelling.
 - iii. Construction lighting shall be minimized and shall be directed downward.
- c. **Grading plan.** The Applicant will submit a Grading Plan for review and approval by the Zoning Administrator. The Project shall be constructed in compliance with the County the Grading Plan as determined and approved by the Zoning Administrator or his designee prior to the commencement of any construction activities and a bond or other security will be posted for the grading operations. The grading plan shall:
 - i. Clearly show existing and proposed contours;
 - ii. Note the locations and amount of topsoil to be removed (if any) and the percent of the site to be graded;
 - iii. Limit grading to the greatest extent practicable by avoiding steep slopes and laying out arrays parallel to landforms;
 - iv. An earthwork balance will be achieved on-site with no import or export of soil;
 - v. In areas proposed to be permanent access roads which will receive gravel or in any areas where more than a few inches of cut are required, topsoil will first be stripped and stockpiled on-site to be used to increase the fertility of areas intended to be seeded;
 - vi. Take advantage of natural flow patterns in drainage design and keep the amount of impervious surface as low as possible to reduce storm water storage needs.
- d. **Erosion and Sediment Control Plan.** The County will have a third-party review with corrections completed prior to County review and approval. The owner or operator shall

construct, maintain, and operate the project in compliance with the approved plan. An E&S bond (or other security) will be posted for the construction portion of the project.

e. *Stormwater Management Plan.* The County will have a third-party review with corrections completed prior to County review and approval. The owner or operator shall construct, maintain, and operate the project in compliance with the approved plan. A storm water control bond (or other security) will be posted for the construction portion of the project.

f. *Project Screening and Vegetation Plan.*

i. The Applicant will submit a final Landscape Maintenance Plan for review and approval by the Zoning Administrator. The final plan will address the conditions below in item 4.b. The owner or operator shall construct, maintain, and operate the facility in compliance with the approved plan. The Applicant (or the operator) shall promptly communicate with the Zoning Administrator within 30 days of the date of the notice of violation and submit a plan in writing satisfactory to the Zoning Administrator to remedy such violation no later than 180 days after the date of the notice of violation. Failure to remedy the violation before the end of the 180-day cure period may result in revocation of the CUP.

ii. Ground cover shall be either gravel, concrete, or native vegetation where compatible with site conditions and, in all cases, shall be approved by the Zoning Administrator.

iii. Only EPA approved herbicides shall be used for vegetative and weed control at the energy storage facility by a licensed applicator. No herbicides shall be used within 150 feet of the location of an approved ground water well. The Applicant shall submit an herbicide land application plan prior to approval of the certificate of occupancy (or equivalent). The plan shall specify the type of herbicides to be used, the frequency of land application, the identification of approved groundwater wells, wetlands, streams, and the distances from land application areas to features such as wells, wetlands, streams and other bodies of water. The operator shall notify the County prior to application of pesticides and fertilizers. The County reserves the right to request soil and water testing.

g. The Applicant shall reimburse the County its costs in obtaining independent third-party reviews as required by these conditions.

h. The design, installation, maintenance, and repair of the project in accordance with the most current National Electrical Code (NFPA 70) that Sussex County has adopted (2014 version or later as applicable).

3. Operations.

a. *Permanent Security Fencing.* The Applicant shall install permanent security fencing, consisting of chain link, two-inch square mesh, at least six (6) feet in height, with one (1) foot of barbed wire on top, around the project prior to the commencement of operations of the Project. A performance bond during the construction period reflecting the costs of anticipated fence maintenance shall be posted and maintained. Failure to maintain the fence in a good and functional condition will result in revocation of the permit.

b. *Lighting.* Any on-site lighting provided for the operational phase of the Project shall be dark-sky compliant, shielded away from adjacent properties, and positioned downward to minimize light spillage onto adjacent properties.

- c. *Noise.* Noise will be compliant with the County's Noise Ordinance.
 - d. *Ingress/Egress.* Permanent access roads and parking areas will be stabilized with gravel, asphalt, or concrete to minimize dust and impacts to adjacent properties.
4. **Buffers.**
- a. *Setbacks.*
 - i. A minimum 300-foot setback shall be maintained from a project structure to the street line (edge of right-of-way) where the Property abuts any public rights-of-way.
 - ii. There shall be no setbacks between internal lot lines between parcels in the project area.
 - b. *Screening.* The existing vegetation surrounding the battery storage area shall be preserved for the life of the project. Any removal of existing vegetation shall require the approval by the County. If any existing vegetation (trees) die or are destroyed by a natural disaster and the project becomes visible to adjoining properties and from the road, the applicant shall replace the damaged trees at their expense to make the project area again non-visible.
 - c. Ancillary project facilities may be included in the buffer as described in the application where such facilities do not interfere with the effectiveness of the buffer as determined by the Zoning Administrator.
5. **Traffic.**
- a. The applicant shall comply with all Virginia Department of Transportation recommendations for traffic management during construction and decommissioning of the Project.
 - b. The roads shall be maintained in a safe operating condition during the construction phase and be brought back to the original condition, or improved, upon completion of the construction and decommissioning phases.
6. **Battery Storage.**
- a. Battery and energy storage facilities will be constructed, maintained, and operated in accordance with national industry standards and regulations including the National Electrical Code, International Fire Code of the International Code Council, and the National Fire Protection Association Fire Code. In the event of a conflict between the national industry standards and these Conditions, the national industry standards shall control so that as technology advances, updated technology may be used by the Applicant.
 - b. Lithium-Ion battery cells in a Battery Energy Storage System (BESS) with a Battery Management System (BMS) will be used.
 - c. The BESS enclosure or cabinet will provide a secondary layer of physical containment to the batteries and be equipped with cooling, ventilation, and fire suppression systems.
 - d. Each individual battery enclosure will have 24/7 automated fire detection and extinguishing technology built in. The BMS will monitor individual battery module voltages and temperatures, container temperature and humidity, off-gassing of combustible

gas, fire, ground fault and DC surge, and door access and be able to shut down the system before Thermal Runaway takes place.

- e. The BESS will be placed on an appropriate foundation located in accordance with the Site Plan.
- f. Access to all batteries and electrical switchgear will be from the exterior for normal operation and maintenance. Access to the container interior will not be permitted while the system is in operation. Access shall not conflict with NFPA 855.
- g. Qualifications and experience from selected developers and integrators will be provided including disclosure of fires or other hazards at facilities.
- h. Safety testing and failure modes analysis data from selected developers and manufacturers will be provided.
- i. Any applicable product certifications will be provided.
- j. The Applicant or any future owner shall be liable for contaminants escaping battery cells or the BESS and shall be responsible for all remediation and the costs of remediation in a timely manner.
- k. Applicant will collaborate with Sussex County first responders to utilize technology-appropriate best practices for safe energy storage systems including, but not limited to, the following:
 - i. Adequate access/egress for the first responders;
 - ii. Adequate facility signage (on battery chemistry and person to contact);
 - iii. Accessible Safety Data Sheets;
 - iv. System-specific emergency response plans;
 - v. Training for first responders on the type of system, potential hazards and risks, and system-specific emergency response plans;
 - vi. Adequate supply of fire suppression appliances for the fire fighters;
 - vii. Adequate facility signage on Hazardous Materials present in the vicinity;
 - viii. Emergency lighting;
 - ix. Battery Racks installed according to NFPA 855 standards to make it easier to isolate a failed battery from the rest;
 - x. Sufficient shutdown and isolation capability including a recloser.
 - xi. System-appropriate sensors and alarms;
 - xii. Air ventilation and fire suppression systems; and
 - xiii. Drainage for water runoff, if applicable.

- l. The Applicant or any future owner shall conduct monthly on-site inspections of the battery units and report on their condition.
 - m. In the event the Code of Virginia is amended on or before July 1, 2022 to authorize contributions to localities for standalone energy storage projects through a conditional use permit in the manner that Va. Code Section 15.2-2288.8 allows as of the time of this Permit Application for solar photovoltaic projects, then Applicant agrees to make a one-time \$50,000 contribution to the County for use in fire and rescue capital projects within one year of the Project Commercial Operation Date.
7. Training.
- a. Prior to commissioning of the BESS, the Applicant, shall offer a series of training classes with the County's first responders (Fire and Rescue) to provide materials, education, and training on responding to on-site emergencies. The training classes shall be scheduled with the assistance of the County's designated Public Safety Coordinator. This includes specific technical training regarding the battery energy storage systems and how to respond to issues involving those systems so that the emergency service provider, the surrounding areas, and the environment are protected.
 - b. The Applicant or any future owner or operator shall provide annual training as deemed necessary by the Public Safety Coordinator.
 - c. In the event any upgrades or changes in technology associated with the Project result in any change in emergency procedure, the Applicant or any future owner operator will notify the County Public Safety Coordinator, who may, at their discretion, schedule an additional training on the new equipment.
8. Compliance. The facilities shall be designed, constructed, and tested to meet relevant local, state, and federal standards as applicable.
9. Decommissioning.
- a. *Decommissioning Plan.* The Applicant shall submit a Decommissioning Plan to the County for approval in conjunction with the building permit. The purpose of the Decommissioning Plan is to specify the procedure by which the Applicant or its successor would remove the Project after the end of its useful life and to restore the property.
 - b. *Decommissioning Cost Estimate.* The proposed Decommissioning Cost Estimate dated January 8, 2020, for \$343,680, was prepared by ONE Environmental Group of Carolina, PLLC. Notwithstanding the forgoing, the Applicant is not required to provide a security if the County approves an alternative security arrangement (subsection c. (iv) below).
 - i. The cost estimate shall provide the gross estimated cost to decommission the Project in accordance with the Decommissioning Plan and these conditions. The Decommissioning Cost Estimate shall not include any estimates or offsets for the resale or salvage values of the Project equipment and materials.
 - ii. The Applicant, or its successor, shall reimburse the County for an independent review and analysis by a licensed engineer of the initial decommissioning cost estimate.
 - iii. The Applicant, or its successor, will update the Decommissioning Cost Estimate every five (5) years and reimburse the County for an independent review and analysis by a licensed engineer of each decommissioning cost estimate revision.

c. *Security.*

- i. Prior to the County's approval of the building permit, the Applicant shall provide decommissioning security in the form of a certified funds, cash escrow, Letter of Credit, bond, or parent guarantee for the Full Decommissioning Cost.
 - ii. Upon the receipt of the first revised decommissioning cost estimate (following the 5th anniversary), any increase or decrease in the decommissioning security shall be funded by the Applicant, or refunded to Applicant (if permissible by the form of security), within ninety (90) days and will be similarly trued up for every subsequent five year updated decommissioning cost estimate.
 - iii. The security must be received prior to the approval of the building permit and must stay in force for the duration of the life span of the Project and until all decommissioning is completed. If the County receives notice or reasonably believes that any form of security has been revoked or the County receives notice that any security may be revoked, the County may revoke the Conditional Use Permit and shall be entitled to take all action to obtain the rights to the form of security.
 - iv. Notwithstanding the foregoing requirements in subsections (a)-(iii) above, an alternative security arrangement may be accepted by the County so long as it is a form acceptable to the County Attorney.
- d. *Applicant/Property Owner Obligation.* Within twelve (12) months after the cessation of use of the Project for electrical power storage or transmission, the Applicant or its successor, at its sole cost and expense, shall commence decommissioning of the Project in accordance with the Decommissioning Plan approved by the County. If the Applicant or its successor fails to decommission the Project within eighteen (18) months, the property owners shall commence decommissioning activities in accordance with the Decommissioning Plan. Following the completion of decommissioning of the Project arising out of a default by the Applicant or its successor, any remaining security funds held by the County shall be distributed to the property owners in a proportion of the security funds and the property owner's proportionate acreage ownership of the Project. Upon completion of decommissioning and approval by the County, the County shall sign documentation releasing the decommissioning security.
- e. *Applicant/Property Owner Default; Decommissioning by the County.*
- i. If the Applicant, its successor, or the property owners fail to timely decommission the Project, the County shall have the right, but not the obligation, to commence decommissioning activities and shall have access to the property, access to the full amount of the decommissioning security, and the rights to the Project equipment and materials on the property.
 - ii. If applicable, any excess decommissioning security funds shall be returned to the current owner of the property after the County has completed the decommissioning activities.
 - iii. The County may enter the Project Site in accordance with Virginia law. Nothing herein shall limit other rights or remedies that may be available to the County to enforce the obligations of the Applicant, including under the County's zoning powers.
- f. *Site Access.* The County has the right to enter the Project Site without further consent to engage in decommissioning. Nothing herein shall limit other rights or remedies that may be available to the County to enforce the obligations of the Applicant, including under the County's zoning powers.
- g. *Equipment/building removal.* All physical improvements, materials, and equipment related to Project, both surface and subsurface components, shall be removed in their entirety. The soil

grade will also be restored following disturbance caused in the removal process. Perimeter fencing will be removed and recycled or re-used. The exception to removal of the materials and equipment would be upon written request from the current or future landowner or the County indicating areas where removal is not requested.

- h. *Infrastructure removal.* All access roads will be removed, including any geotextile material beneath the roads and granular material. The exception to removal of the access roads and associated culverts or their related material would be upon written request from the current or future landowner or the County to leave all or a portion of these facilities in place for use by that landowner. Access roads will be removed within areas that were previously used for agricultural purposes and topsoil will be redistributed to provide substantially similar growing media as was present within the areas prior to site disturbance.
 - i. *Reforestation.* The site will be replanted with pine seedlings to stimulate pre-timbered pre-development conditions as indicated on the Preliminary Site Plan. The exception to reforestation would be upon written request from the current or future landowner or the County indicating areas where reforestation is not requested.
 - j. *Partial Decommissioning.* If decommissioning is triggered for a portion of the Project, then the Applicant or its successor will commence and complete decommissioning, in accordance with the Decommissioning Plan, for the applicable portion of the Project; the remaining portion of the Project would continue to be operational and subject to the Decommissioning Plan when the time comes. Any reference to decommissioning the Project shall include the obligation to decommission all or a portion of the Project whichever is applicable with respect to a particular situation.
10. The Conditional Use Permit shall be terminated if the project does not receive a building permit within 18 months after the Applicant receives (a) any required state approvals; (b) any approvals of the regional transmission organization; and (c) any approvals required by the State Corporation Commission, but in no event more than thirty-six (36) months of approval of the Conditional Use Permit. Any timeframe under which the Commonwealth is under an Executive Order of the Governor declaring a statewide emergency will toll the timeframe specified in this condition.
11. If the Project is declared to be unsafe, due to a violation of building or electrical codes, as determined by the fire marshal or building official, and the operator of the Facilities fails to respond in writing to such official within thirty (30) days, the County may revoke the right for the Facilities to continue operation until the unsafe condition is brought into compliance with the applicable building or electrical code. If the unsafe condition cannot be remedied within six (6) months, the Conditional Use Permit shall be terminated, and the Project shall be decommissioned.
12. The owner and operator shall give the County written notice of any change in ownership or operation within thirty (30) days.

Sincerely,

Shilton R. Butts
Assistant to the County Administrator/
Deputy Clerk to the Board



April 12, 2021

Beverly Walkup, Planning Director
20135 Princeton Road
Sussex, VA 23884

**Amendment to Approved Conditional Use Permit - #2019-04
Shands Energy Center, LLC**

Dear Ms. Walkup

Shands Energy Center, LLC is pleased to submit the following application for an amendment to the approved Conditional Use Permit application. Shands Energy Center, LLC is wholly owned by East Point Energy, LLC.

Shands Energy Center, LLC is seeking an amendment to CUP #2019-04, which was approved by the County of Sussex on August 3, 2020. Since Shands Energy Center's CUP was approved, new procedures have been developed that alter the safety procedures defined in 6(d) + 6(a) of the CUP. East Point has described these changes in more detail in Attachment 1.

East Point Energy is a battery storage project development firm. Our projects make the electrical grid more reliable, resilient, and affordable. We partner with utilities, landowners, and communities to deploy energy storage solutions to benefit the grid and our environment. We believe that energy storage is critical to increasing renewable energy penetration on the grid, thus reducing dependence on fossil fuels and sustaining our planet. Our management team has over a decade of experience developing Distributed Energy Resources around the country with over 1GW of operating projects and over \$1.5B in deployed capital.

Contained within this complete application are the following attachments:

1. Conditional Use Permit Application
2. Attachment 1
3. Site plan
4. Equipment specifications sheet
5. Statement of qualifications
6. \$500 Check

Should you have any questions or comments, please feel free to reach out to us at any time.

Sincerely,

Richard Russell, Project Developer

CUP Number: _____
Date Application Filed: _____
\$500 Processing Fee Received By: _____



Sussex County Planning Department
Post Office Box 1397
20209 Thornton Square
Sussex, Virginia 23884
Phone: 434-246-1043
Fax: 434-246-8259

CONDITIONAL USE PERMIT APPLICATION

Owner Information:

Name: Ruth Pride
Address: 26828 Walkers Mill Road
Stony Creek, VA 23882
Phone Number: 434-246-9276

Applicant Information:

Name: Shands Energy Center, LLC
Address: 200 Garrett Street, Suite J
Charlottesville, VA 22902
Phone Number: 434-465-6210

Legal Description of Property:

Tax Map Number: 64-A-21, 64-A-23
Zoning District: 7b
Block Number: _____
Lot Size (Acreage): 32.28

Election District: _____
Subdivision: _____
Lot Number: _____
Square Footage: _____

Please answer the following: Please refer to Attachment 1 of application

1. When was property acquired by applicant? / /
2. Are there any deed restrictions on the property in question? Yes No
(If yes, attach a copy of restrictions)
3. What is the proposed use of property or type of improvement? Please be detailed and specific in your description. (For example: new construction, addition or demolition, agricultural, residential or commercial use)

4. What is the Fair market value of improvements \$ _____
(Value must include all buildings, electrical, plumbing, and mechanical work to be performed).
5. Describe briefly the type of use and improvements proposed. State whether new buildings are to be constructed, existing buildings are to be used, or additions made to existing buildings

6. Describe how the proposed use and improvements are to be designed and arranged to fit into the development of adjacent property of the neighborhood.

7. Furnish plot plan, preliminary site plan, and/or preliminary subdivision plat showing boundaries and dimensions of property, width of boundary sheets, location and size of buildings on site, roadways, walks, off street parking and loading space, landscaping and the like. Architect's/Engineer's sketches showing elevations of proposed buildings and complete plans are also desirable and if available should be filed with application.

8. I hereby certify that I have the authority to make the forgoing application and that the application is complete and correct and that the conditional use permit is in accordance with section _____ of the Zoning Ordinance.

Owner Signature: Ruth M. Pride Date: April 9, 2022
Applicant Signature: [Signature] Date: 4/12/2022



Attachment 1 to Amended Conditional Use Permit Application

1. The purchase option agreement of the land was executed on November 28th, 2018.
2. No, there are deed restrictions.
3. This application is a request to amend conditions 6(a) and 6(d) contained within conditional use permit no. #2019-04, approved July 16th, 2020.

- a. 6(a) - This proposed amendment would add necessary clarity to the required national and state codes that apply to the Project. The Project proposes a design that would comply with Virginia's Statewide Fire Prevention Code and the Virginia Uniform Statewide Building Code, which are state-adopted versions of the International Fire and Building Codes. In addition, the Project would be designed to meet the 2014 National Electric Code, which is the version that Virginia currently has adopted. The original condition language listed codes that conflict with one another and without this proposed clarity, determining compliance for both construction and operation would be difficult for both the Project and the Sussex Building Official. This proposed amendment would match the standards currently adopted statewide.

The proposed amended condition would now read: "Battery and energy storage facilities will be constructed, maintained, and operated in accordance with national industry standards and regulations including Virginia's currently adopted version of the National Electrical Code, Virginia's Statewide Fire Prevention Code, and Virginia's Uniform Statewide Building Code (USBC). In the event of a conflict between the national industry standards and these Conditions, the Virginia Statewide Fire Prevention Code and Virginia Uniform Statewide Building Code (USBC) shall control to match the standards currently adopted statewide.

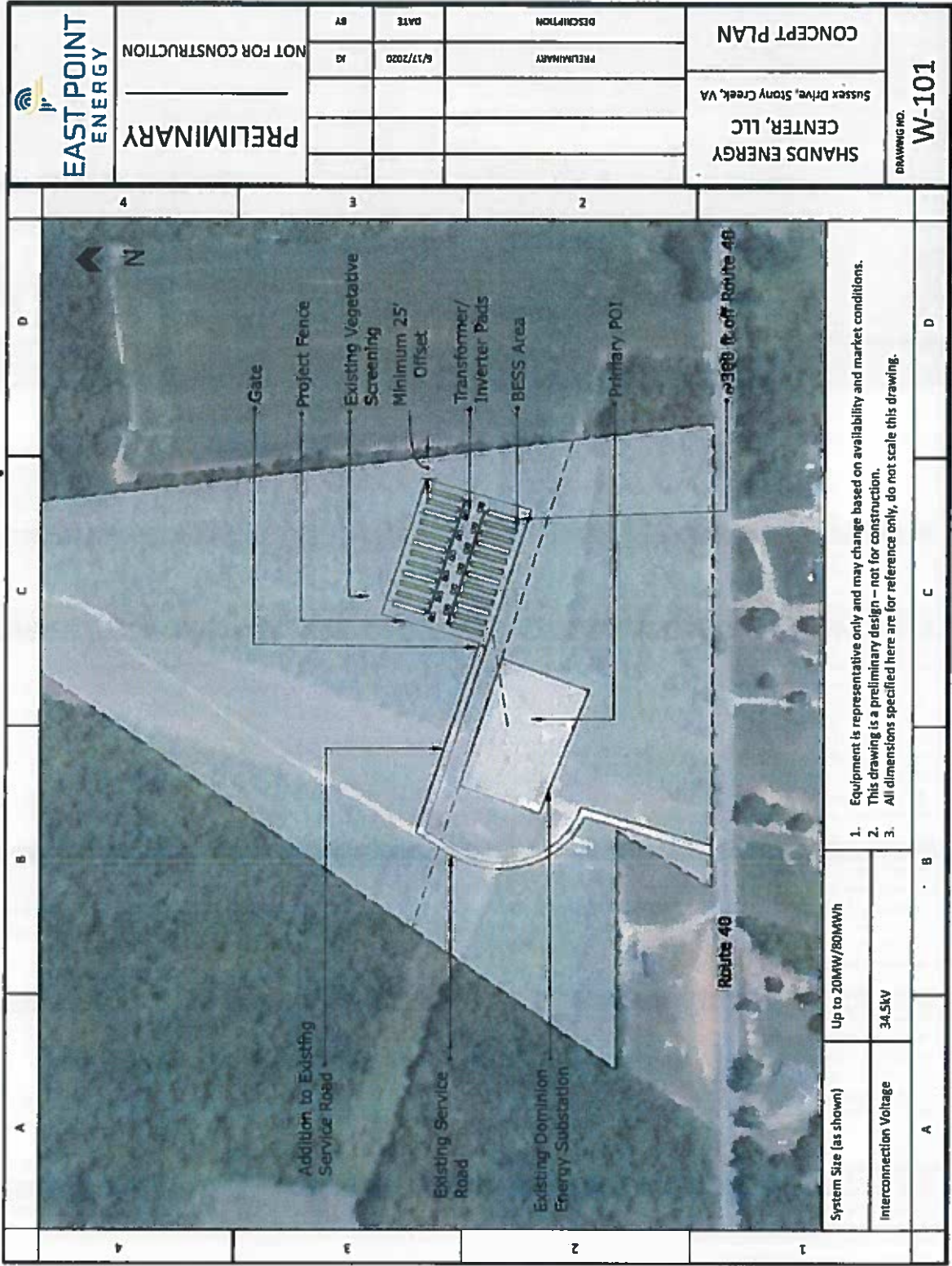
- b. 6(d) - This proposed amendment would add the word "manual" to the fire extinguishing technology requirement. Each individual battery enclosure will continue to have 24/7 automated fire detection technology and 24/7 system monitoring, as originally proposed. Further, the Battery Management System (BMS) is designed to monitor battery characteristics such as temperature, voltage, humidity and charging conditions and to shut down the system, if necessary. The battery enclosures are equipped with smoke and flammable gas detection systems. The manual fire extinguishing technology may be a fire department connection on the outside of each

battery enclosure that can be connected to a 2.5-inch fire hose. This proposed amendment is a result of recent energy storage reports that have found that automated fire extinguishing technology may unintentionally increase the explosion risk due to the need for the enclosure to be "tight" in order for the fire extinguisher to work properly. This proposed amendment would result in a safer design, which is better for the community, the first responders and the Project.

The proposed amended condition would read: "Each individual battery enclosure will have 24/7 automated fire detection and *manual* extinguishing technology built in. The BMS will monitor individual battery module voltages and temperatures, container temperature and humidity, off-gassing of combustible gas, fire, ground fault and DC surge, and door access and be able to shut down the system before Thermal Runaway takes place."

4. The fair market value of improvements is between \$10,000,000 and \$20,000,000, pending final project specifications.
5. Newly constructed grid scale stand-alone battery energy storage energy system will interconnect at distribution voltage to an already existing Dominion Energy Substation in order to store excess electricity from the grid.
6. The containers will be propped up on a small concrete piers or pads to ensure protection from flooding. The entire project area will be fenced in and a visual screen will be installed. The decibel level at the property boundaries will be similar to the decibel level of that already existing Dominion Substation.
7. See attached site plan.
8. I hereby certify that I have the authority to make the forgoing application that the application is complete and correct and that the conditional use permit is in accordance with section **34-217 (18b)** of the Zoning Ordinance.

Site Plan



1. Equipment is representative only and may change based on availability and market conditions.
2. This drawing is a preliminary design - not for construction.
3. All dimensions specified here are for reference only, do not scale this drawing.

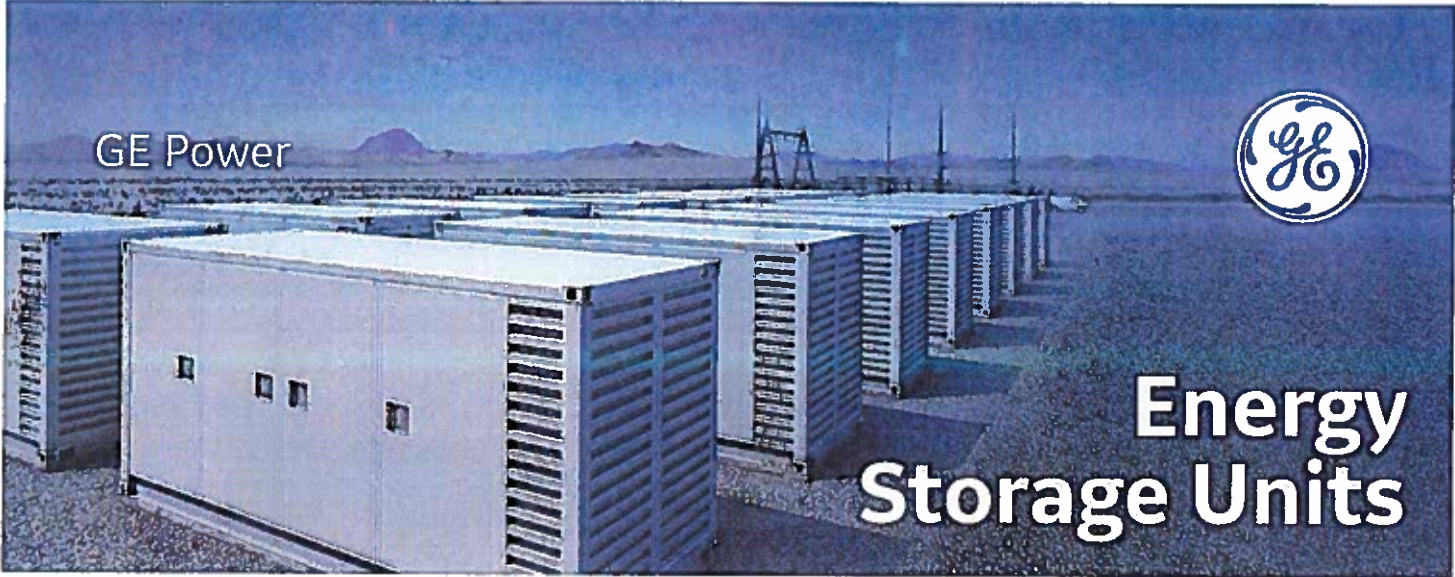
System Size (as shown) Up to 20MW/80MWh
 Interconnection Voltage 34.5kV



GE Power



Energy Storage Units



Overview	Energy RSU-4000	Mid-Power	High-Power
Nameplate Energy Capacity (KWh.dc, usable)	4184	3700	2500
Individual Battery Racks	20	54	40
Maximum Power - Factory Installed (KW.dc)	1200	960	720
Maximum DC Current - Factory Installed (A)	1600	1280	960
Key Features			
Battery Management System	GE Blade Protection Unit (BPU)		Battery Supplier
Compatible Inverters	GE RIU-2750MV		GE RIU-2750MV
Inverter Connections	1	1 or 2	
Solar DC Coupling	Yes IDC/AC Ratio <2.8)		1 to 3
Integrated PV Combiner	Optional		
String Level Lockable Disconnect	Module & Rack Level		
Augmentation Options for Lifecycle Management	Yes		
DC Bus Control	DC-IQ Intelligent Bus		Inverter Controlled
Battery LifeCycle Management	Digital Twin Life Optimization - Optional		Digital Twin Life Optimization - Optional
Unit Validation	Factory Built and Tested		Project Commissioning
Design life (years)	25		20
Battery Information			
Battery Chemistry	Lithium-Ion, NCM	Lithium-Ion, NCM	Lithium-Ion, NCM
Battery Module Design™	Energy	Mid-Power	High Power
Continuous C-Rate	<C/3	<1C	<2C
Pulse C-Rate	<C/3	<1.5C	<3C
Voltage Class	1500V		1000V
Nominal DC Voltage (V)	1300		814
Minimum DC Voltage (V)	770		612
Mechanical Information			
Package Format	20' ISO w/Exterior Acces		40' ISO w/Ext. Access
Dimensions (mm) (L X W X H)	6058 x 2438 x 2890 mm		12,200 x 2438 x 2890 mm
Fully Integrated HVAC		Dual Self-Contained High Efficiency Units	
- Hot Climate Upgrade		+30% Cooling Capacity	
- Cold Climate Upgrade		+ Electric Heating Package	
Fire Suppression - Aerosol		Optional	
Installation		Pad/Pier	
Cable Entry	Bottom		Top
Weatherization		NEMA 3R, IP 54	
Design Conditions			
Min Operating Temperature (C)	-40°C	-25°C	-25°C
Max operating Temperature (C)		50°C (55°C w/ hot climate upgrade)	
Maximum Altitude (m)		2000	
Maximum Relative Humidity (%)		95%, non-condensing	
Seismic Zone		UBC Zone-4	
Audible Noise		<60 db at 3m	
Certifications & Compliance			
Certifications		UN38.3, UL 1973, UL 508C, CE	
Compliance		UL1642, NFPA 70E	

GE Power



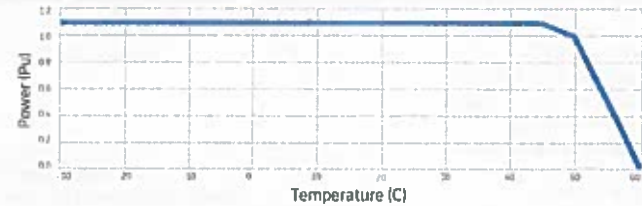
Reservoir Inverter Unit

Energy Storage Inverter

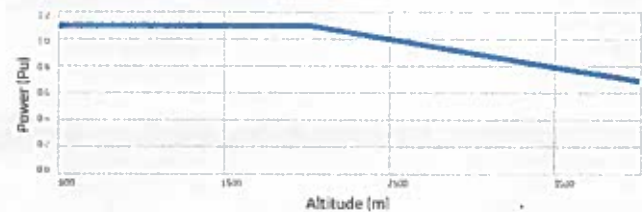
RIU-2750MV

AC Parameters	RIU-2750MV
Nominal Power (kWac, @45C)	2500 kW
Maximum Power (kVA, at 45C)	2750 kVA
Rated AC Operating Voltage(Vac)	550 V (10.35 kV)
Maximum Reactive Power (kVA, at 45C)	2500 kVA
AC Operating Voltage Range (%)	+/- 10%
Grid Frequency +/-5% (Hz)	50/60 Hz
Power Factor Range	-1.0 to 1.0
DC Parameters	
DC Input Range(Vdc)	800 - 1500V
Max DC Current (A)	3500A
BPU Coordination	Yes
Operational Parameters	
Max Efficiency	98.80%
CEC Efficiency	98.50%
Power consumption at stop	400 W
Max Power consumption	4.8 kW
Audible Noise	<70 dB@ 1M
Physical Parameters	
Dimensions (mm) (L X W X H)	6058 x 2438 x 2890 mm
Weight (kg)	15,700 kg
Ambient Temperature Range (C)	-30°C to 50°C (60C*)
Elevation (m)	≤2000m (Nominal)
Weatherization	IP 54, NEMA 3R
Cable Entry	Bottom
Communications	
External Standard	RS-485, Ethernet
Response Time	<100 mSec
Equipment	
Ground Fault Monitoring	2 - Level
AC Circuit Breaker	Lockable
DC Loaded Switch	Fused
Integrated LV Auxiliary Power Supply	Yes
Features	
Anti-islanding	Yes
Reactive Power Compensation	Yes
Low Voltage Ride Through (LVRT)	Yes
High Voltage Ride through (HVRT)	Yes
Frequency Ride Through	Yes
Certifications & Compliance	
Certifications	UL 1741, IEC 62109
Compliance	SA/Rule 21, IEEE 1547 PRC-024, AS3000, IEC 62477

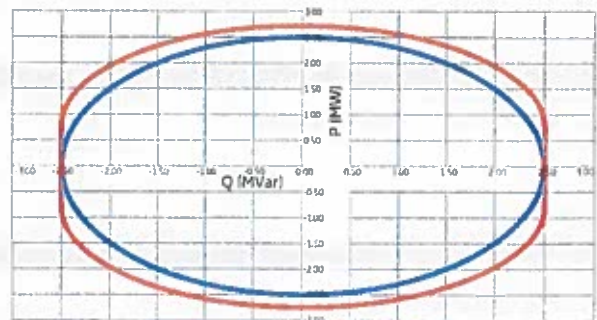
Temperature Rating



Altitude Rating



Nominal Capability Curve



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GEA 33117-0E
English
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Reservoir Platform Solutions

Overview	Energy	Mid-Power	High-Power
Typical Project Size (MW)	>5 MW	>10 MW	>10 MW
Typical Project Size (MWh)	>16 MWh	>10 MWh	>4 MWh
Minimum Duration	>3.2 Hours	> 1 Hour	> 20 Minutes
Grid Connection Voltage (kV)		>10kV	
Grid Frequency +/- SHz (Hz)		50 / 60 Hz	
Power Factor Range		0.8 to 1.1	
Solution Design life (years)		up to 20 to 25	
Delivery Scope Options	Containerized Equipment + Engineered Equipment Package + Extended AC Scope + Full Turnkey		
Service Options	Planned and Unplanned LTSA + Performance Guarantees (Availability, Capacity) + Lifecycle Management(Augmentation)		
Typical Project Footprint (m2/MW)	86	65	65
Typical Use Case			
Generation	Capacity, Shifting, Ancillary Services	Grid Support, Ancillary Services	Grid Support, Ancillary Services
Transmission	Peak Management Ancillary Services	Grid Support, Ancillary Services	Grid Support, Ancillary Services
Distribution	Peak Management, Resiliency	Renewable Integration	-
Hybrid - Solar	Dispatchable, Shifting	Firming, Grid Code	Grid Code
Hybrid - Wind	Dispatchable, Shifting	Firming, Grid Code	Grid Code
Hybrid - Thermal		Improve Operations	Regulation, Contingency Reserve
Industrial	Reliability, Peak Mgmt, Local Renewables	-	-
Configuration Information			
Compatible Storage Units	GE RSU-4000 Series	GE MPSU-3600 Series	GE HPSU-2500 Series
Solar DC Coupling	Yes - w/PV Optimizers	-	-
Integrated PV Combiner	Optional	-	-
Plant Control	GE Reservoir Control Unit (Mark VIe w/Cimplicity SCADA & Fleet Manager Lite Remote Access)		
Software Options	Optional Reservoir Digital Suite (Fleet Manager, Dispatch Optimizer, Market Exchange)		
Compatible Inverters	GE RIU-2750MV		
Fully Integrated HVAC	Self-Contained High Efficiency Units		
Fire Suppression	Optional - Aerosol		
Enhanced Resiliency Options	Blackstart, Island Mode, Back-UP Power		
Battery Information			
Compatible Storage Units	GE RSU-4000 Series	GE MPSU-3600 Series	GE HPSU-2500 Series
Augmentation Options for Lifecycle Management	Yes	-	-
Cell Type	Lithium-Ion, NCM	Lithium-Ion, NCM	Lithium-Ion, NCM
Module Design	Energy	Mid-Power	High Power
Voltage Class	1500V	1000V	1000V
Battery Install	Factory	Site	Site
Battery Management System	GE Blade Protection Unit (BPU)	Battery Supplier	Battery Supplier
Design Conditions			
Min Ambient Temperature (C)		-40°C	
Max Ambient Temperature (C)		50°C (55°C w/ hot climate upgrade)	
Maximum Altitude (m)		2000	
Maximum Relative Humidity (%)		95%, non-condensing	
Seismic Zone		UBC Zone-4	
Audible Noise		<60 dB at 3M	
Certifications & Compliance			
Certifications		UL 1973, UL1741, UL 508C, CE	
Compliance		UL 9450, NFPA 70E, NEC	

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Reservoir Storage Unit

Modular, Scalable Solutions For Utility Scale Applications RSU-4000 Series

Overview	RSU-4000/20	RSU-4000/16	RSU-4000/12
Overview	RSU-4000/20	RSU-4000/16	RSU-4000/12
Nameplate Energy Capacity (KWh dc, usable)	4184	3347.2	2510.4
Individual Battery Blades - Factory Installed	20 of 20	16 of 20	12 of 20
Maximum Power - Factory Installed (KW.dc)	1200	960	720
Maximum DC Current - Factory Installed (A)	1600	1280	960
Available Augmentation Capacity (% BOL)	0%	25%	67%
Available Augmentation Capacity (kWh.dc)	N/A	836.8	1673.6
Key Features			
Battery Management System		GE Blade Protection Unit (BPU)	
Compatible Inverters		GE RIU-2/50MV	
Remote Management		Reservoir Suite	
Solar DC Coupling		Yes (DC:AC Ratio <2.8)	
Integrated PV Combiner		Yes	
Integrated Lockable Disconnect		Module & Rack Level	
Augmentation Options for Lifecycle Management		Yes	
DC Bus Control		DC-IQ Intelligent Bus	
Battery LifeCycle Management		Digital Twin Life Optimization - Optional	
Unit Validation		Factory Built & Tested	
Design life (years)		25	
Battery Information			
Battery Chemistry		Lithium Ion, NCM	
Battery Module Design		Energy	
Continuous C-Rate		<C/3	
Pulse C-Rate		<C/3	
Voltage Class		1500V	
Nominal DC Voltage (V)		1300	
Minimum DC Voltage (V)		770	
Mechanical Information			
Package Format		20' ISO w/Exterior Acces	
Dimensions (mm) (L X W X H)		6058 x 2438 x 2890 mm	
Weight (kg)	37k	31k	25k
Fully Integrated HVAC		Dual Self-Contained 3 Ton Units (High Efficiency 10. EER)	
- Hot Climate Upgrade		+33% Cooling Capacity	
- Cold Climate Upgrade		+ Electric Heating Package	
Fire Suppression - Aerosol		Optional	
Installation		Pad/Pier	
Cable Entry		Bottom	
Weatherization		NEMA 3R, IP54	
Design Conditions			
Min Operating Temperature (C)		-40°C	
Max operating Temperature (C)		50°C (55°C w/ hot climate upgrade)	
Maximum Altitude (m)		2000	
Maximum Relative Humidity (%)		95%, non-condensing	
Seismic Zone		UBC Zone-4	
Audible Noise		<60 dB at 3M	
Certifications & Compliance			
Certifications		UN38.3, UL 1973, UL 508C, CE	
Compliance		UL1642, UNDOT 38.3, IEC 62477-1, NFPA 70E, IEC 50110, ASTM4169, IEEE 605, IEEE C37.32	

GE reserves the right to make changes to specifications of products described at any time without notice and without obligation to notify any person of such changes.



Statement of Qualifications

East Point Energy is an energy storage project development firm founded in 2018 by energy executives with over a decade of energy development experience. We develop standalone, front-of-the-meter, grid-scale battery energy storage systems. We partner with utilities, landowners, and communities to deploy projects that make the electrical grid more reliable, resilient and affordable.

East Point Energy's management team has successfully developed 4 gigawatts of renewable energy projects, of which 1.5 gigawatts are operating throughout the United States. Today, East Point is developing thousands of megawatts of battery energy storage systems in various markets around the country. We are working to transform the grid into a sustainable, reliable and resilient system for generations to come.

EXECUTIVE EXPERIENCE AT A GLANCE

- Over 10 years of developing DER's
- 4GW of renewable energy development experience
- 1.5GW of operating wind and solar projects
- Over \$1.5B of transactional experience

We are technology and contractor agnostic, allowing us to find the best solution for each individual project. Our team is passionate, nimble, and resilient. Our success is measured by delivering profitable energy storage solutions that benefit the grid, communities, and our environment.

Utility Partners (Executive Experience)



Supply Chain Partners



Representative Battery Storage Projects



Knightdale Energy Center Battery Storage Project
System Size: 100 MWac | 400 MWh
Location: SERC
Current Status: Under Development
Target COD: 2023



Yadkins Energy Center Battery Storage Project
System Size: 100 MWac | 400 MWh
Location: PJM
Current Status: Under Development
Target COD: 2023



Shands Energy Center Battery Storage Project
System Size: 15.7 MWac | 62.8 MWh
Location: PJM
Current Status: Under Development
Target COD: 2022



Oceanside Energy Center Battery Storage Project
System Size: 10 MWac | 40 MWh
Location: NYISO
Current Status: Under Development
Target COD: 2022-2023



Flat Rock Energy Center Battery Storage Project
System Size: 10 MWac | 20 MWh
Location: ERCOT
Current Status: Under Development
Target COD: 2022

Representative Projects

(References Upon Request)



Brokenburg Battery Energy Storage System

System Size: 2MWac/8MWHac

Client: Rappahannock Electric Cooperative

Location: Spotsylvania, Virginia

Type of System: Battery Energy Storage System

The Brokenburg Battery Energy Storage System (BESS) will reach commercial operation in the first quarter of 2021, and was developed by East Point Energy, integrated by Powin Energy, and constructed by REC and subcontractors. The BESS will provide load shifting at peak times to defer substation upgrades, provide the ability to island and carry an entire distribution circuit in the event of a substation outage, and educate REC and their members on battery storage technology.



**CENTRAL
VIRGINIA
ELECTRIC
COOPERATIVE**

Martin and Palmer Solar Centers

System Size: 10.0 MWac

Client: Central Virginia Electric Cooperative (CVEC)

Location: Goochland and Fluvanna Counties, VA

Type of System: Ground Mounted Solar Facilities

The Martin and Palmer Solar Centers were developed by HelioSage Energy (led by East Point Energy's current management team), constructed by EPC contractor McCarthy Building Companies and will generate enough clean electricity to power roughly 1,200 homes annually.



Elm City Solar Facility

System Size: 40.0 MWac

Client: Duke Energy

Location: Elm City, NC

Type of System: Ground Mounted Solar Facilities

The Elm City Solar Facility project was developed by HelioSage Energy, constructed by Strata Solar, is now owned and operated by Duke Energy (NYSE: DUK), and produces enough power for more than 6,800 North Carolina homes per year.



Richland Solar Center

System Size: 20.0 MWac

Client: Georgia Power Co.

Location: Jeffersonville, GA

Type of System: Ground Mounted Solar Facilities

The Richland Solar Center project was developed by HelioSage Energy, constructed by M + W Group and is owned and operated as a part of Dominion Energy's 1,200 MW solar fleet.



Somers Solar Center

System Size: 5.0 MWac

Client: Connecticut Light & Power

Location: Somers, Connecticut

Type of System: Ground Mounted Solar Facilities

The Somers Solar Center was developed by HelioSage Energy, sells power directly to Connecticut Light & Power, is owned and operated by Dominion Energy, and generates enough electricity to power over 600 homes each year.



The Boston Scientific Solar Center

System Size: 1.3 MWac

Client: Boston Scientific Corporation

Location: Quincy, MA

Type of System: Fixed Roof Mounted Solar System

The Boston Scientific Solar Center was developed by HelioSage Energy. Owing to its coastal location, this project design required approval for operation in wind zones rated for 120 mph gusts. The project passed its first test with flying colors when the system rode out Hurricane Sandy unscathed.



Elk River Windfarm

System Size: 150 MWac

Location: Butler County, Kansas

Type of System: Windfarm

Located in southeastern Kansas, the Elk River Windfarm is a 150 MW project currently operating pursuant to a long-term power purchase agreement with Empire District Electric Company. Nelson Teague, General Counsel of East Point Energy helped develop the Elk River Windfarm as a Principal and Director of Development of Greenlight Energy, Inc. Greenlight was responsible for the origination and development of the project and, following project permitting and PPA execution, sold the project to PPM Energy. Elk River generates enough electricity for approximately 46,000 households.



Cedar Creek Windfarm

System Size: 300 MWac

Location: Weld County, Colorado

Type of System: Windfarm

Cedar Creek Windfarm is currently operating pursuant to a long-term power purchase agreement with Public Service Company of Colorado (Xcel Energy). Nelson Teague, Director of Development at Greenlight Energy, Inc helped develop and sell the Cedar Creek Project. Greenlight, along with its partner, Babcock & Brown, was responsible for the origination, development and financing of the project. Cedar Creek Windfarm generates enough electricity for approximately 92,000 households.

Management Team

Andrew Foukal | President & CEO

Andrew founded East Point Energy in 2018, and is responsible for the business strategy and execution, as well as building and leading the team. Capitalizing on his ten years of energy development experience in utility-scale solar, and with his vision, work ethic and management skills, Andrew is building East Point Energy into a leading energy storage firm in the United States.

In 2009, Andrew joined as one of the first employees of HelioSage Energy, a utility-scale solar project development firm. Andrew rose through the ranks quickly and was instrumental in developing HelioSage's 350 megawatts of contracted solar before the company was acquired by Coronal Energy in 2015. Coronal promoted Andrew to SVP of Operations, where at the end-to-end, utility-scale solar IPP, he managed the Development Engineering and Procurement team, and the development efforts behind a 4 GW utility-scale PV pipeline. When Andrew left to start East Point Energy, Coronal had more than 600 megawatts of PV projects in operation.

Andrew started his career at Lux Research, an independent research and advisory firm providing strategic advice and ongoing intelligence for emerging technologies, including solar photovoltaics and nanotechnology.

Andrew holds a BS in Physics from Bates College and a Masters in Materials Science and Engineering from the University of Virginia.

Chris Walmsley | COO

Prior to joining East Point Energy as a founding member in 2018, Chris helped start HelioSage Energy in 2007. Chris lead the utility-scale solar project development firm as President and CEO until the company was sold in 2015 to Coronal Energy. Chris and his partners navigated tremendous growth at HelioSage establishing the firm as a trusted development partner in the solar industry for a number of the country's largest institutional investors, major equipment vendors and utilities. Chris left Coronal Energy at the end of 2017.

A true entrepreneur, over 25 years ago Chris and his brother, Pierce, started AutoMax, a marketing distributorship headquartered in Prague, Czech Republic. AutoMax has three divisions - lubricants, automotive aftermarket and industrial cleaning - with exclusive rights to major brands like WD-40, Shell Lubricants, and many others. Since 2009, AutoMax has acquired four competing but complementary businesses including the Shell Lubricant division for the Czech and Slovak Republics. With over 110 employees, and offices in the Czech Republic, Slovakia and Hungary, AutoMax continues to grow and remain profitable year after year.

From 2001 until 2005, Chris also spent four years building an online ticketing business for Musictoday, a company sold to Live Nation in 2006. Chris helped design the ticketing system that handled sell-out shows from the Dave Matthews Band to John Mayer.

For many years, Chris served on the Board and was the President of Computers4Kids, a local non-profit, after-school technology mentoring program for disadvantaged youth.

Chris holds a BA in History from the University of Virginia.

Pierce Walmsley | CFO

Pierce has over 20 years of executive experience in many different industries and on two continents.

Prior to joining East Point Energy as a founding member in 2018, Pierce served as the CFO and on the Board of Coronal Energy after Coronal purchased HelioSage in 2015. Pierce joined HelioSage as CFO in September of 2008. Along with fiduciary responsibility for Coronal, Pierce's primary responsibility was directing accounting and project finance. Pierce negotiated a series of strategic agreements with some of the country's largest and most active institutional investors, including several Fortune 500 energy companies. Pierce was also instrumental in negotiating the sale of projects to buyers and, ultimately, the sale of HelioSage to Coronal.

Prior to joining HelioSage, Pierce co-founded two successful start-ups: Global Sleep Products Inc., a memory foam mattress business, and AutoMax, a marketing and distribution firm in the Czech Republic, which he and his brother, Chris, still own. Founded in 1991, AutoMax employs over 110 people across three markets and continues to grow and remain profitable year after year.

Prior to these ventures, Pierce spent 4 years as COO of a 25-store specialty retail chain, The Healthy Back Stores, and 3 years as a Commercial Loan Officer with First Union National Bank. Pierce is also a Director of Froehling and Robertson, Inc, a 133-year old privately-held consulting engineering/testing firm.

Pierce holds a BA in Economics and Psychology from the University of Virginia, and an MBA from the Darden Graduate School of Business Administration.

Nelson Teague | General Counsel

With a background in corporate law and structured finance transactions, Nelson has been engaged in renewable energy development for over fifteen years.

Prior to joining East Point Energy as a founding member in 2018, Nelson helped co-found HelioSage, the utility-scale solar project development firm sold to Coronal Energy in 2015. While at Coronal Energy, he served as Vice President - Legal where he supported the company's development efforts in Charlottesville. Nelson left Coronal Energy in the summer of 2018.

Prior to that, Nelson worked as the Director of Project Transactions with Greenlight Energy, Inc., managing and negotiating a contract suite that became one of the country's largest wind energy project pipelines. Following the sale of Greenlight Energy to BP Alternative Energy Services in 2006, Nelson joined BP where he led the development, project financing, and construction of the 300 megawatt Cedar Creek Wind Farm, a \$480 million facility selling power to Xcel Energy under a long term power purchase agreement.

Nelson has also served as General Counsel for several renewable energy development firms in the arenas of utility-scale solar (Axio Power), utility-scale wind (Apex Wind Energy, Inc.), biofuels manufacture (Greenlight Biofuels, Inc.) and the commercialization of a wave to energy technology (Columbia Power Technologies).

Nelson practiced law for Williams, Mullen, where he specialized in corporate law. He also served as corporate counsel for Circuit City Stores, Inc. and two of its subsidiaries from 1994-1998.

Nelson holds a BA in Politics from Washington and Lee University and his law degree from the TC Williams School of Law at the University of Richmond.

March 31, 2021

Mr. Andrew Foukal
Shands Energy Center, LLC
(East Point Energy, LLC)
200 Garrett Street, #J
Charlottesville, Virginia 22902

RE: Approval of CUP #2019-04
Shands Energy, LLC (East Point Energy, LLC)

Dear Mr. Foukal:

At its regular meeting held on July 16, 2020, the Sussex County Board of Supervisors voted to approve Conditional Use Permit Application #2019-04. The aforementioned application is approved subject to the following conditions:

I. The Applicant will develop the Project Site in substantial accord with the Conceptual Site Plan dated February 19, 2020 included with the application and these conditions as determined by the Zoning Administrator. Significant deviations or additions including any enclosed building structures to the Preliminary Site Plan will require review and approval by the Planning Commission and Board of Supervisors.

2. Site Plan Requirements.

In addition to all Virginia site plan requirements and site plan requirements of the Zoning Administrator, the Applicant shall provide the following plans for review and approval for the Project prior to the issuance of a building permit:

a. *Construction Management Plan.* The Applicant shall prepare a "Construction Management Plan" for each applicable site plan for the project, and each plan shall address the following:

- i. Traffic control methods (in coordination with the Virginia Department of Transportation [VDOT] prior to initiation of construction): i. Lane closures, ii. Signage, and iii. Flagging procedures.
- ii. Site access planning. Directing employee and delivery traffic to minimize conflicts with local traffic.
- iii. Site security. The Applicant shall implement security measures prior to the commencement of construction on the Project Site.
- iv. Lighting. During construction of the project, any temporary construction lighting shall be positioned downward, inward, and shielded to eliminate glare from all adjacent properties. Emergency and/or safety lighting shall be exempt from this construction lighting condition.
- v. Water Supply. In the event that on-site wells are used during construction of the facility, the Applicant shall prepare and submit for review to the County hydrogeologic information necessary for the County to determine the potential impact to pre-existing users for the same aquifer proposed to be used for the solar energy facility and a plan to mitigate impacts to pre-existing users within the area of impact of the Project. If the County, in consultation with the Department of Environmental Quality, determines

Mr. Andrew Foukal
CUP #2019-04, Shands Energy, LLC
(East Point Energy, LLC)
Page 1 of 9

that the installation of a well will not adversely affect existing users, the Applicant may proceed with well construction in compliance with approval by the Department of Environmental Quality. At the end of the construction of the Battery Energy Storage facility, the well shall not thereafter be used except only for personal toilet and lavatory facilities as required by the Uniform Statewide Building Code for operations and maintenance buildings.

b. **Construction Mitigation Plan.** The Applicant shall prepare a "Construction Mitigation Plan" for each applicable site plan for the project, and each plan shall address the effective mitigation of dust, burning operations, hours of construction activity, access and road improvements, and handling of general construction complaints as set forth and described in the application materials and to the satisfaction of the Zoning Administrator. Damage to public roads from construction activities shall be repaired with approval from VDOT as soon as possible and not postponed to construction completion. A construction mitigation bond (or other security) will be posted for the construction portion of the project.

- i. Construction activity on-site shall be permitted Monday through Sunday in accordance with the provisions of the County's Noise Ordinance.
- ii. During construction, the setbacks may be used for staging of materials and parking. No material and equipment laydown area, construction staging area, or construction trailer shall be located within 200 feet of any property containing a residential dwelling.
- iii. Construction lighting shall be minimized and shall be directed downward.

c. **Grading plan.** The Applicant will submit a Grading Plan for review and approval by the Zoning Administrator. The Project shall be constructed in compliance with the County the Grading Plan as determined and approved by the Zoning Administrator or his designee prior to the commencement of any construction activities and a bond or other security will be posted for the grading operations. The grading plan shall:

- i. Clearly show existing and proposed contours;
- ii. Note the locations and amount of topsoil to be removed (if any) and the percent of the site to be graded;
- iii. Limit grading to the greatest extent practicable by avoiding steep slopes and laying out arrays parallel to landforms;
- iv. An earthwork balance will be achieved on-site with no import or export of soil;
- v. In areas proposed to be permanent access roads which will receive gravel or in any areas where more than a few inches of cut are required, topsoil will first be stripped and stockpiled on-site to be used to increase the fertility of areas intended to be seeded;
- vi. Take advantage of natural flow patterns in drainage design and keep the amount of impervious surface as low as possible to reduce storm water storage needs.

d. **Erosion and Sediment Control Plan.** The County will have a third-party review with corrections completed prior to County review and approval. The owner or operator shall construct, maintain, and operate the project in compliance with the

approved plan. An E&S bond (or other security) will be posted for the construction portion of the project.

c. *Stormwater Management - Plan.* The County will have a third-party review with corrections completed prior to County review and approval. The owner or operator shall construct, maintain, and operate the project in compliance with the approved plan. A storm water control bond (or other security) will be posted for the construction portion of the project.

f. *Project Screening and Vegetation Plan.*

i. The Applicant will submit a final Landscape Maintenance Plan for review and approval by the Zoning Administrator. The final plan will address the conditions below in item 4.b. The owner or operator shall construct, maintain, and operate the facility in compliance with the approved plan. The Applicant (or the operator) shall promptly communicate with the Zoning Administrator within 30 days of the date of the notice of violation and submit a plan in writing satisfactory to the Zoning Administrator to remedy such violation no later than 180 days after the date of the notice of violation. Failure to remedy the violation before the end of the 180 - day cure period may result in revocation of the CUP.

ii. Ground cover shall be either gravel, concrete, or native vegetation where compatible with site conditions and, in all cases, shall be approved by the Zoning Administrator.

iii. Only EPA approved herbicides shall be used for vegetative and weed control at the energy storage facility by a licensed applicator. No herbicides shall be used within 150 feet of the location of an approved ground water well. The Applicant shall submit an herbicide land application plan prior to approval of the certificate of occupancy (or equivalent). The plan shall specify the type of herbicides to be used, the frequency of land application, the identification of approved groundwater wells, wetlands, streams, and the distances from land application areas to features such as wells, wetlands, streams and other bodies of water. The operator shall notify the County prior to application of pesticides and fertilizers. The County reserves the right to request soil and water testing.

g. The Applicant shall reimburse the County its costs in obtaining independent third-party reviews as required by these conditions.

h. The design, installation, maintenance, and repair of the project in accordance with the most current National Electrical Code (NFPA 70) that Sussex County has adopted (2014 version or later as applicable).

3. *Operations.*

a. *Permanent Security Fencing.* The Applicant shall install permanent security fencing, consisting of chain link, two-inch square mesh, at least six (6) feet in height, with one (1) foot of barbed wire on top, around the project prior to the commencement of operations of the Project. A performance bond during the construction period reflecting

the costs of anticipated fence maintenance shall be posted and maintained. Failure to maintain the fence in a good and functional condition will result in revocation of the permit.

b. *Lighting.* Any on-site lighting provided for the operational phase of the Project shall be dark-sky compliant, shielded away from adjacent properties, and positioned downward to minimize light spillage onto adjacent properties.

c. *Noise.* Noise will be compliant with the County's Noise Ordinance.

d. *Ingress/Egress.* Permanent access roads and parking areas will be stabilized with gravel, asphalt, or concrete to minimize dust and impacts to adjacent properties.

4. Buffers.

a. Setbacks.

- i. A minimum 300-foot setback shall be maintained from a project structure to the street line (edge of right-of-way) where the Property abuts any public rights-of-way.
- ii. There shall be no setbacks between internal lot lines between parcels in the project area.

b. *Screening.* The existing vegetation surrounding the battery storage area shall be preserved for the life of the project. Any removal of existing vegetation shall require the approval by the County. If any existing vegetation (trees) die or are destroyed by a natural disaster and the project becomes visible to adjoining properties and from the road, the applicant shall replace the damaged trees at their expense to make the project area again non-visible.

c. Ancillary project facilities may be included in the buffer as described in the application where such facilities do not interfere with the effectiveness of the buffer as determined by the Zoning Administrator.

5. Traffic.

a. The applicant shall comply with all Virginia Department of Transportation recommendations for traffic management during construction and decommissioning of the Project.

b. The roads shall be maintained in a safe operating condition during the construction phase and be brought back to the original condition, or improved, upon completion of the construction and decommissioning phases.

6. Battery Storage.

a. Battery and energy storage facilities will be constructed, maintained, and operated in accordance with national industry standards and regulations including the Virginia's currently adopted version of the National Electrical Code, Virginia's Statewide Fire Prevention Code, and Virginia's Uniform Statewide Building Code (USBC). In the event of a conflict between the national industry standards and these Conditions, the Virginia Statewide Fire Prevention Code and Virginia Uniform Statewide Building Code (USBC) shall control ~~to match the standards currently adopted statewide.~~

b. Lithium-Ion battery cells in a Battery Energy Storage System (BESS) with a Battery Management System (BMS) will be used.

c. The BESS enclosure or cabinet will provide a secondary layer of physical containment to the batteries and be equipped with cooling, ventilation, and fire suppression systems.

d. Each individual battery enclosure will have 24/7 automated fire detection and ~~manual~~ extinguishing technology built in. The BMS will monitor individual battery module voltages and temperatures, container temperature and humidity, off-gassing of combustible gas, fire, ground fault and DC surge, and door access and be able to shut down the system before Thermal Runaway takes place.

e. The BESS will be placed on an appropriate foundation located in accordance with the Site Plan.

f. Access to all batteries and electrical switchgear will be from the exterior for normal operation and maintenance. Access to the container interior will not be permitted while the system is in operation. Access shall not conflict with NFPA 855.

g. Qualifications and experience from selected developers and integrators will be provided including disclosure of fires or other hazards at facilities.

h. Safety testing and failure modes analysis data from selected developers and manufacturers will be provided.

i. Any applicable product certifications will be provided.

j. The Applicant or any future owner shall be liable for contaminants escaping battery cells or the BESS and shall be responsible for all remediation and the costs of remediation in a timely manner.

k. Applicant will collaborate with Sussex County first responders to utilize technology-appropriate best practices for safe energy storage systems including, but not limited to, the following:

- i. Adequate access/egress for the first responders;
- ii. Adequate facility signage (on battery chemistry and person to contact);
- iii. Accessible Safety Data Sheets;
- iv. System-specific emergency response plans;

Deleted:

Deleted: International Fire Code of the International Code Council, and the National Fire Protection Association Fire Code

Deleted: national industry standards

Deleted: so that as technology advances, updated technology may be used by the Applicant.

- v. Training for first responders on the type of system, potential hazards and risks, and system-specific emergency response plans;
- vi. Adequate supply of fire suppression appliances for the fire fighters;
- vii. Adequate facility signage on Hazardous Materials present in the vicinity;
- viii. Emergency lighting;
- ix. Battery Racks installed according to NFPA 855 standards to make it easier to isolate a failed battery from the rest;
- x. Sufficient shutdown and isolation capability including a recloser.
- xi. System-appropriate sensors and alarms;
- xii. Air ventilation and fire suppression systems; and
- xiii. Drainage for water runoff, if applicable.

l. The Applicant or any future owner shall conduct monthly on-site inspections of the battery units and report on their condition.

m. In the event the Code of Virginia is amended on or before July 1, 2022 to authorize contributions to localities for standalone energy storage projects through a conditional use permit in the manner that Va. Code Section 15.2-2286.8 allows as of the time of this Permit Application for solar photovoltaic projects, then Applicant agrees to make a one-time \$50,000 contribution to the County for use in fire and rescue capital projects within one year of the Project Commercial Operation Date.

7. Training.

a. Prior to commissioning of the BESS, the Applicant, shall offer a series of training classes with the County's first responders (Fire and Rescue) to provide materials, education, and training on responding to on-site emergencies. The training classes shall be scheduled with the assistance of the County's designated Public Safety Coordinator. This includes specific technical training regarding the battery energy storage systems and how to respond to issues involving those systems so that the emergency service provider, the surrounding areas, and the environment are protected.

b. The Applicant or any future owner or operator shall provide annual training as deemed necessary by the Public Safety Coordinator.

c. In the event any upgrades or changes in technology associated with the Project result in any change in emergency procedure, the Applicant or any future owner operator will notify the County Public Safety Coordinator, who may, at their discretion, schedule an additional training on the new equipment.

8. Compliance.

The facilities shall be designed, constructed, and tested to meet relevant local, state, and federal standards as applicable.

9. Decommissioning.

a. *Decommissioning Plan.* The Applicant shall submit a Decommissioning Plan to the County for approval in conjunction with the building permit. The purpose of the

Decommissioning Plan is to specify the procedure by which the Applicant or its successor would remove the Project after the end of its useful life and to restore the property.

b. **Decommissioning Cost Estimate.** The proposed Decommissioning Cost Estimate dated January 8, 2020, for \$343,680, was prepared by ONE Environmental Group of Carolina, PLLC. Notwithstanding the foregoing, the Applicant is not required to provide a security if the County approves an alternative security arrangement (subsection c. (iv) below).

- i. The cost estimate shall provide the gross estimated cost to decommission the Project in accordance with the Decommissioning Plan and these conditions. The Decommissioning Cost Estimate shall not include any estimates or offsets for the resale or salvage values of the Project equipment and materials.
- ii. The Applicant, or its successor, shall reimburse the County for an independent review and analysis by a licensed engineer of the initial decommissioning cost estimate.
- iii. The Applicant, or its successor, will update the Decommissioning Cost Estimate every five (5) years and reimburse the County for an independent review and analysis by a licensed engineer of each decommissioning cost estimate revision.

c. **Security.**

- i. Prior to the County's approval of the building permit, the Applicant shall provide decommissioning security in the form of a certified funds, cash escrow, Letter of Credit, bond, or parent guarantee for the Full Decommissioning Cost.
- ii. Upon the receipt of the first revised decommissioning cost estimate (following the 5th anniversary), any increase or decrease in the decommissioning security shall be funded by the Applicant, or refunded to Applicant (if permissible by the form of security), within ninety (90) days and will be similarly trued up for every subsequent five year updated decommissioning cost estimate.
- iii. The security must be received prior to the approval of the building permit and must stay in force for the duration of the life span of the Project and until all decommissioning is completed. If the County receives notice or reasonably believes that any form of security has been revoked or the County receives notice that any security may be revoked, the County may revoke the Conditional Use Permit and shall be entitled to take all action to obtain the rights to the form of security.
- iv. Notwithstanding the foregoing requirements in subsections (a)-(iii) above, an alternative security arrangement may be accepted by the County so long as it is a form acceptable to the County Attorney.

d. **Applicant/Property Owner Obligation.** Within twelve (12) months after the cessation of use of the Project for electrical power storage or transmission, the Applicant or its successor, at its sole cost and expense, shall commence decommissioning of the Project in accordance with the Decommissioning Plan approved by the County. If the Applicant or its successor fails to decommission the Project within eighteen (18) months, the property owners shall commence decommissioning activities in accordance with the Decommissioning Plan. Following the completion of decommissioning of the Project arising out of a default by the Applicant or its successor, any remaining security funds held by the County shall be distributed to the property owners in a proportion of the security funds and

the property owner's proportionate acreage ownership of the Project. Upon completion of decommissioning and approval by the County, the County shall sign documentation releasing the decommissioning security.

- e. *Applicant/Property Owner Default; Decommissioning by the County.*
 - i. If the Applicant, its successor, or the property owners fail to timely decommission the Project, the County shall have the right, but not the obligation, to commence decommissioning activities and shall have access to the property, access to the full amount of the decommissioning security, and the rights to the Project equipment and materials on the property.
 - ii. If applicable, any excess decommissioning security funds shall be returned to the current owner of the property after the County has completed the decommissioning activities.
 - iii. The County may enter the Project Site in accordance with Virginia law. Nothing herein shall limit other rights or remedies that may be available to the County to enforce the obligations of the Applicant, including under the County's zoning powers.

- f. *Site Access.* The County has the right to enter the Project Site without further consent to engage in decommissioning. Nothing herein shall limit other rights or remedies that may be available to the County to enforce the obligations of the Applicant, including under the County's zoning powers.

- g. *Equipment/building removal.* All physical improvements, materials, and equipment related to Project, both surface and subsurface components, shall be removed in their entirety. The soil grade will also be restored following disturbance caused in the removal process. Perimeter fencing will be removed and recycled or re-used. The exception to removal of the materials and equipment would be upon written request from the current or future landowner or the County indicating areas where removal is not requested.

- h. *Infrastructure removal.* All access roads will be removed, including any geotextile material beneath the roads and granular material. The exception to removal of the access roads and associated culverts or their related material would be upon written request from the current or future landowner or the County to leave all or a portion of these facilities in place for use by that landowner. Access roads will be removed within areas that were previously used for agricultural purposes and topsoil will be redistributed to provide substantially similar growing media as was present within the areas prior to site disturbance.

- i. *Reforestation.* The site will be replanted with pine seedlings to stimulate pre-timbered pre-development conditions as indicated on the Preliminary Site Plan. The exception to reforestation would be upon written request from the current or future landowner or the County indicating areas where reforestation is not requested.

- j. *Partial Decommissioning.* If decommissioning is triggered for a portion of the Project, then the Applicant or its successor will commence and complete decommissioning, in accordance with the Decommissioning Plan, for the applicable portion of the Project; the remaining portion of the Project would continue to be operational and subject to the Decommissioning Plan when the time comes. Any reference to decommissioning the Project shall include the obligation to

decommission all or a portion of the Project whichever is applicable with respect to a particular situation.

10. The Conditional Use Permit shall be terminated if the project does not receive a building permit within 18 months after the Applicant receives (a) any required state approvals; (b) any approvals of the regional transmission organization; and (c) any approvals required by the State Corporation Commission, but in no event more than thirty-six (36) months of approval of the Conditional Use Permit. Any timeframe under which the Commonwealth is under an Executive Order of the Governor declaring a statewide emergency will toll the timeframe specified in this condition.

11. If the Project is declared to be unsafe, due to a violation of building or electrical codes, as determined by the fire marshal or building official, and the operator of the Facilities fails to respond in writing to such official within thirty (30) days, the County may revoke the right for the Facilities to continue operation until the unsafe condition is brought into compliance with the applicable building or electrical code. If the unsafe condition cannot be remedied within six (6) months, the Conditional Use Permit shall be terminated, and the Project shall be decommissioned.

12. The owner and operator shall give the County written notice of any change in ownership or operation within thirty (30) days.

Sincerely,



Shilton R. Butts
Assistant to the County Administrator/Deputy Clerk to the Board

At a regular meeting of the Board of Supervisors of the County of Sussex, held at the Courthouse thereof, on the 16th day of July 2020.

PRESENT:

C. Eric Fly, Sr.
Marian D. Johnson
Debbie P. Jones
Wayne O. Jones
Susan B. Seward
Rufus E. Tyler, Sr.

VOTE:

aye
aye
aye
aye
aye
aye

R-20-118: Approval of Agenda

ON MOTION OF SUPERVISOR D. JONES, seconded by W. JONES and carried: RESOLVED that the Sussex County Board of Supervisors hereby approves Conditional Use Permit #2019-04, East Point Energy, LLC, Applicant contingent upon the following conditions:

Conditions

1. The Applicant will develop the Project Site in substantial accord with the Conceptual Site Plan dated February 19, 2020 included with the application and these conditions as determined by the Zoning Administrator. Significant deviations or additions including any enclosed building structures to the Preliminary Site Plan will require review and approval by the Planning Commission and Board of Supervisors.
2. **Site Plan Requirements.** In addition to all Virginia site plan requirements and site plan requirements of the Zoning Administrator, the Applicant shall provide the following plans for review and approval for the Project prior to the issuance of a building permit:
 - a. **Construction Management Plan.** The Applicant shall prepare a "Construction Management Plan" for each applicable site plan for the project, and each plan shall address the following:
 - i. Traffic control methods (in coordination with the Virginia Department of Transportation [VDOT] prior to initiation of construction): i. Lane closures, ii. Signage, and iii. Flagging procedures.
 - ii. Site access planning. Directing employee and delivery traffic to minimize conflicts with local traffic.
 - iii. Site security. The Applicant shall implement security measures prior to the commencement of construction on the Project Site.
 - iv. Lighting. During construction of the project, any temporary construction lighting shall be positioned downward, inward, and shielded to eliminate glare from all adjacent properties. Emergency and/or safety lighting shall be exempt from this construction lighting condition.
 - v. Water Supply. In the event that on-site wells are used during construction of the facility, the Applicant shall prepare and submit for review to the County hydrogeologic information necessary for the County to determine the potential impact to pre-existing users for the same aquifer proposed to be used for the solar energy facility and a plan to mitigate impacts to pre-existing users within the area of impact of the Project. If the County, in consultation with the Department of Environmental Quality, determines that the installation of a well will not adversely affect existing users, the Applicant may proceed with well construction in compliance with approval by the Department of Environmental Quality. At the end of the construction of the Battery Energy Storage facility, the well shall not thereafter be used except only for personal toilet and lavatory facilities as required by the Uniform Statewide Building Code for operations and maintenance buildings.

b. **Construction Mitigation Plan.** The Applicant shall prepare a "Construction Mitigation Plan" for each applicable site plan for the project, and each plan shall address the effective mitigation of dust, burning operations, hours of construction activity, access and road improvements, and handling of general construction complaints as set forth and described in the application materials and to the satisfaction of the Zoning Administrator. Damage to public roads from construction activities shall be repaired with approval from VDOT as soon as possible and not postponed to construction completion. A construction mitigation bond (or other security) will be posted for the construction portion of the project.

- i. Construction activity on-site shall be permitted Monday through Sunday in accordance with the provisions of the County's Noise Ordinance.
- ii. During construction, the setbacks may be used for staging of materials and parking. No material and equipment laydown area, construction staging area, or construction trailer shall be located within 200 feet of any property containing a residential dwelling.
- iii. Construction lighting shall be minimized and shall be directed downward.

c. **Grading plan.** The Applicant will submit a Grading Plan for review and approval by the Zoning Administrator. The Project shall be constructed in compliance with the County the Grading Plan as determined and approved by the Zoning Administrator or his designee prior to the commencement of any construction activities and a bond or other security will be posted for the grading operations. The grading plan shall:

- i. Clearly show existing and proposed contours;
- ii. Note the locations and amount of topsoil to be removed (if any) and the percent of the site to be graded;
- iii. Limit grading to the greatest extent practicable by avoiding steep slopes and laying out arrays parallel to landforms;
- iv. An earthwork balance will be achieved on-site with no import or export of soil;
- v. In areas proposed to be permanent access roads which will receive gravel or in any areas where more than a few inches of cut are required, topsoil will first be stripped and stockpiled on-site to be used to increase the fertility of areas intended to be seeded;
- vi. Take advantage of natural flow patterns in drainage design and keep the amount of impervious surface as low as possible to reduce storm water storage needs.

d. **Erosion and Sediment Control Plan.** The County will have a third-party review with corrections completed prior to County review and approval. The owner or operator shall construct, maintain, and operate the project in compliance with the approved plan. An E&S bond (or other security) will be posted for the construction portion of the project.

e. **Stormwater Management Plan.** The County will have a third-party review with corrections completed prior to County review and approval. The owner or operator shall construct, maintain, and operate the project in compliance with the approved plan. A storm water control bond (or other security) will be posted for the construction portion of the project.

f. **Project Screening and Vegetation Plan.**

- i. The Applicant will submit a final Landscape Maintenance Plan for review and approval by the Zoning Administrator. The final plan will address the conditions below in item 4.b. The owner or operator shall construct, maintain, and operate the facility in compliance with the approved plan. The Applicant (or the operator) shall promptly communicate with the Zoning Administrator within 30 days of the date of the notice of violation and submit a plan in writing satisfactory to the Zoning

Administrator to remedy such violation no later than 180 days after the date of the notice of violation. Failure to remedy the violation before the end of the 180-day cure period may result in revocation of the CUP.

- ii. Ground cover shall be either gravel, concrete, or native vegetation where compatible with site conditions and, in all cases, shall be approved by the Zoning Administrator.
- iii. Only EPA approved herbicides shall be used for vegetative and weed control at the energy storage facility by a licensed applicator. No herbicides shall be used within 150 feet of the location of an approved ground water well. The Applicant shall submit an herbicide land application plan prior to approval of the certificate of occupancy (or equivalent). The plan shall specify the type of herbicides to be used, the frequency of land application, the identification of approved groundwater wells, wetlands, streams, and the distances from land application areas to features such as wells, wetlands, streams and other bodies of water. The operator shall notify the County prior to application of pesticides and fertilizers. The County reserves the right to request soil and water testing.

g. The Applicant shall reimburse the County its costs in obtaining independent third-party reviews as required by these conditions.

h. The design, installation, maintenance, and repair of the project in accordance with the most current National Electrical Code (NFPA 70) that Sussex County has adopted (2014 version or later as applicable).

3. Operations.

a. **Permanent Security Fencing.** The Applicant shall install permanent security fencing, consisting of chain link, two-inch square mesh, at least six (6) feet in height, with one (1) foot of barbed wire on top, around the project prior to the commencement of operations of the Project. A performance bond during the construction period reflecting the costs of anticipated fence maintenance shall be posted and maintained. Failure to maintain the fence in a good and functional condition will result in revocation of the permit.

b. **Lighting.** Any on-site lighting provided for the operational phase of the Project shall be dark-sky compliant, shielded away from adjacent properties, and positioned downward to minimize light spillage onto adjacent properties.

c. **Noise.** Noise will be compliant with the County's Noise Ordinance.

d. **Ingress/Egress.** Permanent access roads and parking areas will be stabilized with gravel, asphalt, or concrete to minimize dust and impacts to adjacent properties.

4. Buffers.

a. **Setbacks.**

- i. A minimum 300-foot setback shall be maintained from a project structure to the street line (edge of right-of-way) where the Property abuts any public rights-of-way.
- ii. There shall be no setbacks between internal lot lines between parcels in the project area.

b. **Screening.** The existing vegetation surrounding the battery storage area shall be preserved for the life of the project. Any removal of existing vegetation shall require the approval by the County. If any existing vegetation (trees) die or are destroyed by a natural disaster and the project becomes visible to adjoining properties and from the road, the applicant shall replace the damaged trees at their expense to make the project area again non-visible.

c. Ancillary project facilities may be included in the buffer as described in the application where such facilities do not interfere with the effectiveness of the buffer as determined by the Zoning Administrator.

5. **Traffic.**

a. The applicant shall comply with all Virginia Department of Transportation recommendations for traffic management during construction and decommissioning of the Project.

b. The roads shall be maintained in a safe operating condition during the construction phase and be brought back to the original condition, or improved, upon completion of the construction and decommissioning phases.

6. **Battery Storage.**

a. Battery and energy storage facilities will be constructed, maintained, and operated in accordance with national industry standards and regulations including the National Electrical Code, International Fire Code of the International Code Council, and the National Fire Protection Association Fire Code. In the event of a conflict between the national industry standards and these Conditions, the national industry standards shall control so that as technology advances, updated technology may be used by the Applicant.

b. Lithium-Ion battery cells in a Battery Energy Storage System (BESS) with a Battery Management System (BMS) will be used.

c. The BESS enclosure or cabinet will provide a secondary layer of physical containment to the batteries and be equipped with cooling, ventilation, and fire suppression systems.

d. Each individual battery enclosure will have 24/7 automated fire detection and extinguishing technology built in. The BMS will monitor individual battery module voltages and temperatures, container temperature and humidity, off-gassing of combustible gas, fire, ground fault and DC surge, and door access and be able to shut down the system before Thermal Runaway takes place.

e. The BESS will be placed on an appropriate foundation located in accordance with the Site Plan.

f. Access to all batteries and electrical switchgear will be from the exterior for normal operation and maintenance. Access to the container interior will not be permitted while the system is in operation. Access shall not conflict with NFPA 855.

g. Qualifications and experience from selected developers and integrators will be

provided including disclosure of fires or other hazards at facilities.

h. Safety testing and failure modes analysis data from selected developers and manufacturers will be provided.

i. Any applicable product certifications will be provided.

j. The Applicant or any future owner shall be liable for contaminants escaping battery cells or the BESS and shall be responsible for all remediation and the costs of remediation in a timely manner.

k. Applicant will collaborate with Sussex County first responders to utilize technology-appropriate best practices for safe energy storage systems including, but not limited to, the following:

- i. Adequate access/egress for the first responders;
- ii. Adequate facility signage (on battery chemistry and person to contact);
- iii. Accessible Safety Data Sheets;
- iv. System-specific emergency response plans;
- v. Training for first responders on the type of system, potential hazards and risks, and system-specific emergency response plans;
- vi. Adequate supply of fire suppression appliances for the fire fighters;
- vii. Adequate facility signage on Hazardous Materials present in the vicinity;
- viii. Emergency lighting;
- ix. Battery Racks installed according to NFPA 855 standards to make it easier to isolate a failed battery from the rest;
- x. Sufficient shutdown and isolation capability including a recloser.
- xi. System-appropriate sensors and alarms;
- xii. Air ventilation and fire suppression systems; and
- xiii. Drainage for water runoff, if applicable.

l. The Applicant or any future owner shall conduct monthly on-site inspections of the battery units and report on their condition.

m. In the event the Code of Virginia is amended on or before July 1, 2022 to authorize contributions to localities for standalone energy storage projects through a conditional use permit in the manner that Va. Code Section 15.2-2288.8 allows as of the time of this Permit Application for solar photovoltaic projects, then Applicant agrees to make a one-time \$50,000 contribution to the County for use in fire and rescue capital projects within one year of the Project Commercial Operation Date.

7. Training

a. Prior to commissioning of the BESS, the Applicant, shall offer a series of training classes with the County's first responders (Fire and Rescue) to provide materials, education, and training on responding to on-site emergencies. The training classes shall be scheduled with the assistance of the County's designated Public Safety Coordinator. This includes specific technical training regarding the battery energy storage systems and how to respond to issues involving those systems so that the emergency service provider, the surrounding areas, and the environment are protected.

b. The Applicant or any future owner or operator shall provide annual training as deemed necessary by the Public Safety Coordinator.

c. In the event any upgrades or changes in technology associated with the Project result in any change in emergency procedure, the Applicant or any future owner operator will notify the County Public Safety Coordinator, who may, at their discretion, schedule an additional training on the new equipment.

8. Compliance. The facilities shall be designed, constructed, and tested to meet relevant local, state, and federal standards as applicable.

9. Decommissioning.

a. *Decommissioning Plan.* The Applicant shall submit a Decommissioning Plan to the County for approval in conjunction with the building permit. The purpose of the Decommissioning Plan is to specify the procedure by which the Applicant or its successor would remove the Project after the end of its useful life and to restore the property.

b. *Decommissioning Cost Estimate.* The proposed Decommissioning Cost Estimate dated January 8, 2020, for \$343,680, was prepared by ONE Environmental Group of Carolina, PLLC. Notwithstanding the forgoing, the Applicant is not required to provide a security if the County approves an alternative security arrangement (subsection c. (iv) below).

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- ii. The Applicant, or its successor, shall reimburse the County for an independent review and analysis by a licensed engineer of the initial decommissioning cost estimate.
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of use of the Project for electrical power storage or transmission, the Applicant or its successor, at its sole cost and expense, shall commence decommissioning of the Project in accordance with the Decommissioning Plan approved by the County. If the Applicant or its successor fails to decommission the Project within eighteen (18) months, the property owners shall commence decommissioning activities in accordance with the Decommissioning Plan. Following the completion of decommissioning of the Project arising out of a default by the Applicant or its successor, any remaining security funds held by the County shall be distributed to the property owners in a proportion of the security funds and the property owner's proportionate acreage ownership of the Project. Upon completion of decommissioning and approval by the County, the County shall sign documentation releasing the decommissioning security.

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10. The Conditional Use Permit shall be terminated if the project does not receive a building permit within 18 months after the Applicant receives (a) any required state approvals; (b) any approvals of the regional transmission organization; and (c) any approvals required by the State Corporation Commission, but in no event more than thirty-six (36) months of approval of the Conditional Use Permit. Any timeframe under which the Commonwealth is under an Executive Order of the Governor declaring a statewide emergency will toll the timeframe specified in this condition.

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12. The owner and operator shall give the County written notice of any change in ownership or operation within thirty (30) days.

A COPY TESTE:


Lawrence Hughes, Clerk

Stat-X[®]

Aerosol Fire Suppression

Your Choice for Special Hazard Fire Protection



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Email: info@firewayinc.com

1. Check for Hot Discharge. Do not use if hot.
2. Make sure pressure is within the range of 100-150 psi.
3. WARNING! Discharge of agent can cause frostbite from the indirect force of the spray. Do not discharge from the indirect force of the spray.
4. Read and understand the charge removal procedure.
5. Inspect according to manufacturer's instructions.
6. Inspect monthly, or at least before each use.
7. Check for damage to the canister and the extinguishing agent.
8. The unit is not rechargeable. See instructions for replacement.
9. Dispose properly according to local regulations.

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10000 W. 10th Street • Minneapolis, MN 55440
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Approved Extinguishing Equipment Under UL 2012

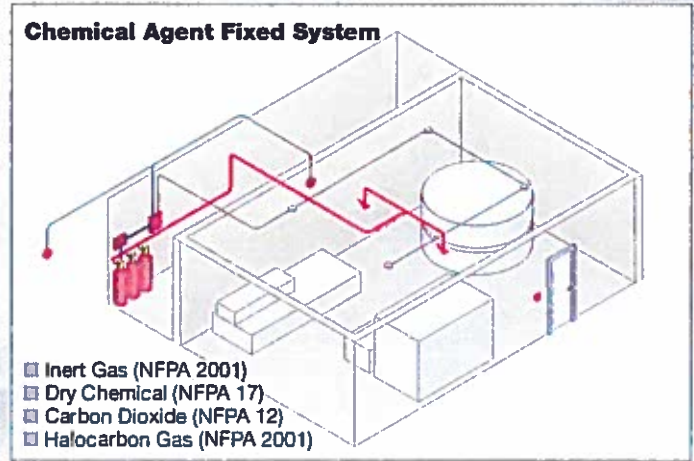
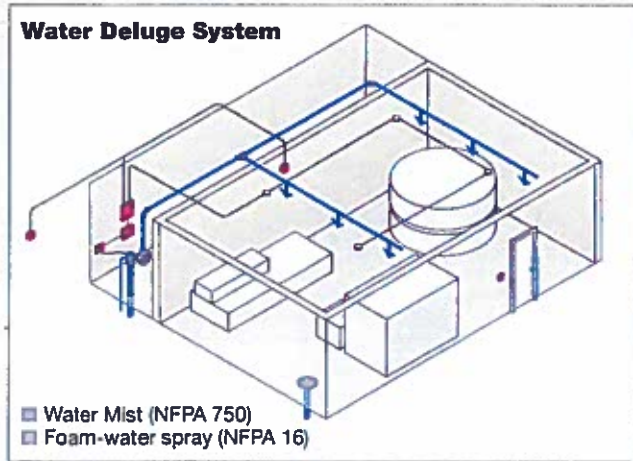
Traditional Special Hazard Fire Protection Centers Around Two Technologies

Water deluge and chemical agent fixed systems protect high value assets and processes not possible with sprinkler-based fire protection.

But this technology remains basically unchanged over the years; a supply of agent is stored under pressure, released through a piping distribution network, floods the space, and suppresses the fire.

Traditional piped systems require costly installation adaptations like:

- Extra space for agent containers and piping
- Robust fixtures to handle weight and discharge
- System isn't easily reconfigured if space changes
- Extensive and frequent maintenance burden
- Special measures for recharging at remote sites



Stat-X® Aerosol Technology

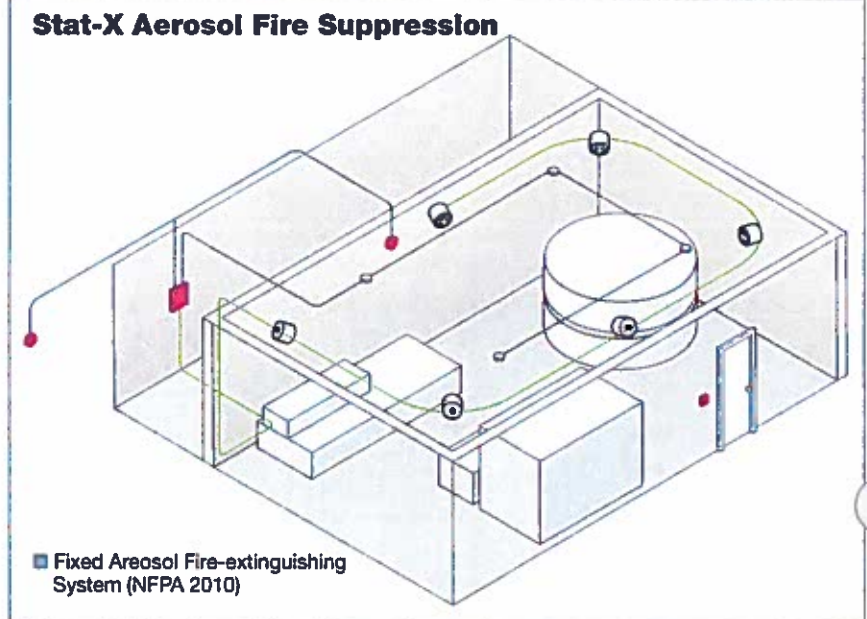
An Effective and Economical Alternative

For safety professionals who need effective and economical special hazard fire protection, Stat-X aerosol technology delivers up to 35% savings

in equipment and lifecycle costs compared to traditional systems. This is due to lower initial expense plus minimal ongoing service costs.

Stat-X aerosol technology is different:

- NO distribution piping, manifold, or nozzles
- NO floor space requirement or shoring up for weight
- NO special handling for compressed gas cylinders
- NO venting or ceiling tile clips for discharge forces
- NO solenoid actuators, control heads, or hoses
- NO water drains or pipe freeze protection
- NO system pressurization or room integrity tests



How it Works

Stat-X devices are termed condensed aerosol agent generators because they generate an ultra-fine suspension of highly ionized potassium fire-fighting particles upon actuation.

The key elements in the generation process are:

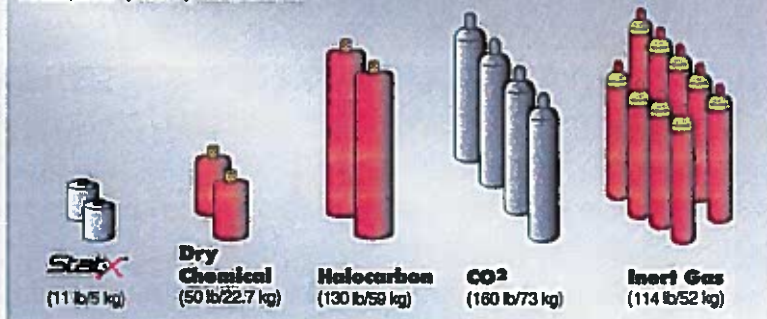
- Device is sealed and stable until actuated
- Actuator at top energizes proprietary compound, creating aerosol agent by exothermic oxidation
- Build-up of ultra-fine particles and nitrogen gas breaks membrane seal and exits through ports
- Discharge fills protected area with a soft suspension of Stat-X agent without "super-pressurizing" space
- Potassium ions combine with fragments of combustion, inhibiting the fire chain reaction
- Agent particles also absorb heat from the fire and form inert gases upon decomposition
- Minute Stat-X agent particles ($\leq 2 \mu\text{m}$) remain in suspension afterwards, helping check re-ignition
- Post-fire area is easily vented and cleaned, with no harmful byproducts generated



The superior effectiveness of condensed aerosols is due to a unique set of characteristics unmatched by other special hazard agents. This is why it is by far the most efficient fire suppression agent by weight.

LESS AGENT FOR THE SAME HAZARD SPACE

For a 2,550 ft³ (72.2 m³) hazard volume:



- **Most efficient fire suppression by weight**
- **Effective on A, B & C Class fires**
- **Negligible residue, minimal clean-up**
- **Non-toxic, EPA listed halon substitute**

Key Approvals Worldwide

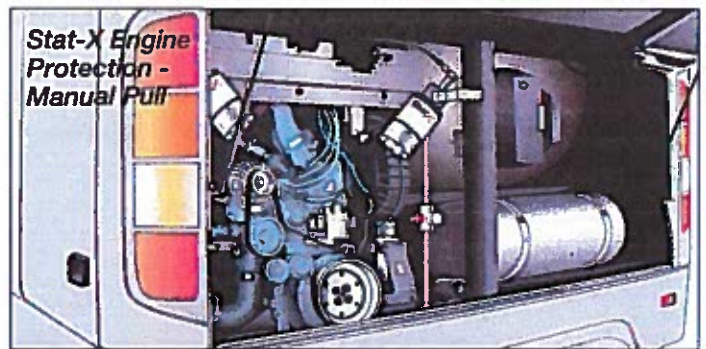
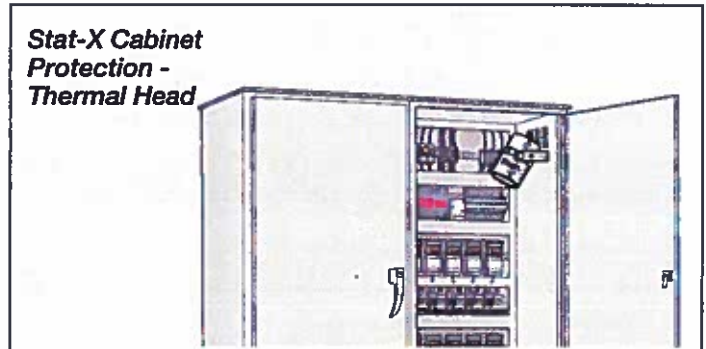
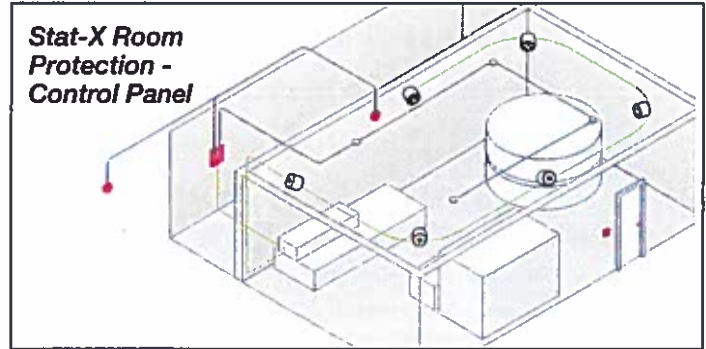
Aerosol fire suppression technology is well-known throughout Europe and Asia. In the past few years, more fire protection engineers in the Americas are recognizing its worth for protecting special hazards.

Norms such as NFPA 2010: Standard for Fixed Aerosol Fire Extinguishing Systems and UL 2775: Fixed Aerosol Extinguishing Systems Units now govern its use in a wide variety of applications.

Stat-X technology is also listed by the USA Environmental Protection Agency as a Halon alternative under its Significant New Alternatives Policy (SNAP) program.

It has no Ozone Depletion Potential (ODP) and zero effective Global Warming Potential (GWP) meaning Stat-X agent is not prone to future bans like many halocarbon agents.

Wide Range of Solutions By Size and Activation Type



Compatible With Popular Control Panels

Stat-X aerosol generators use the same actuation methods as other special hazard fire systems:

- simple manual release,
- automatic thermal release, or
- sophisticated electronic detection and control

Compatibility with many manufacturers' UL listed agent release panels means Stat-X fire suppression can integrate into networks for central reporting or to mass notification systems per NFPA 72 National Fire Alarm and Signaling Code.

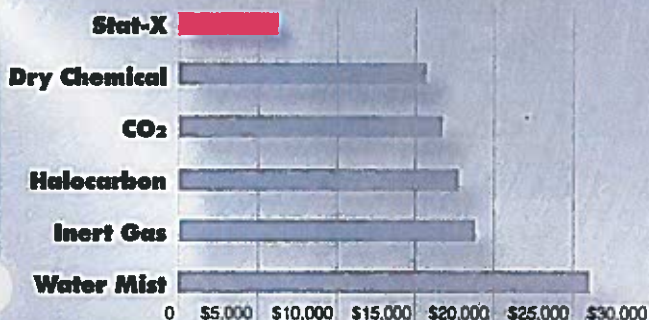
Low Cost of Ownership

NFPA standards and manufacturer guidelines all require regular system maintenance. This is essential to help ensure your suppression system is ready to respond in a fire emergency.

But maintenance costs can be significant over the life of a system and must be considered early on.

Because Stat-X fire suppression has no distribution piping or pressurized agent vessels, maintenance activity is minimized. This dramatically decreases total cost of ownership compared to other systems.

MAINTENANCE COSTS OVER 10 YEARS (Service call: \$785/day)



TECHNOLOGY	KEY MAINTENANCE TASKS	INTERVALS
Water Mist	Flow alarm & drain test	Quarterly
	Clean or replace screens	Semi-annual
	Nozzle water test flow	Annual
	Valve tear-down, inspect	5-years
Halocarbon	Test FACP actuation, weigh cylinders	Semi-annual
	Blow out piping	2-years
	Hydrostatic test hose	5-years
Dry Chemical	Test FACP actuation, blow out piping	Semi-annual
	Tear-down & replace agent	6-years
CO ₂	Test FACP actuation, check pressure & agent quantity	Semi-annual
	Hydrostatic test cylinder, refill unrecovered agent	5-years
Inert Gas	Test FACP actuation, check pressure & agent quantity	Semi-annual
	Hydrostatic test cylinders, refill unrecovered agent	5-years
Stat-X	Test FACP actuation, examine Stat-X hardware	Semi-annual

The number of required maintenance tasks, their complexity and frequency determine costs over time. Tasks shown above are taken from UL-listed design, installation, operation and maintenance manuals from various manufacturers.

By comparison, Stat-X system inspection and maintenance has fewer tasks, saving both time and labor.

Fire Professionals Are Switching to Stat-X!

Fire safety professionals who do cost-to-benefit risk analysis quickly realize Stat-X fire suppression is the most economical system, offering the most effective fire protection, for many special hazard applications.

The inherent flexibility of design combined with equipment and labor savings allows them to enhance coverage for currently protected assets and add coverage to previously neglected areas.

What Our Customers Are Saying

“Stat-X protecting one of our CNC machines discharged due to fire, suppressing it. The area was unmanned and the automatic system stopped the fire from spreading. We were up and running again fast!”

- Manufacturer, Geneva, IL

“It works wonders. One Stat-X First Responder® knocked down the fire. They are life savers.”

- Firefighter, Deer Park, NY

“After researching available special hazard systems for the very best protection as well as compliance with safety and environmental issues we found Stat-X technology as the product leader.”

- Engineer, Leicestershire, UK

Quality You Can Count On

Our high quality aerosol fire suppression generators are built to last and built to be effective. Their outstanding fire suppression performance and long service life is rooted in meticulous manufacturing practices.

- Proprietary fire suppression compound is precisely formulated, milled and blended from the best reagent grade chemicals
- Architectural grade stainless steel and an impervious metallized membrane create a highly corrosion and oxidation resistant housing

- Manufacture to the tightest engineering tolerances and tested to MIL-STD-810 so units resist environmental effects and temperature extremes
- Partner with leading fire panel makers to ensure full detection and control integration with Stat-X hardware
- State-of-the-art processes are regularly audited and inspected by certified third parties
 - ISO-9001
 - American Bureau of Shipping
 - Bureau Veritas
 - Underwriters Laboratories

Our Mission: Protect Lives and Property

This is what we do.

Our team has decades of experience in special hazard fire protection and is dedicated to finding the most effective and economical ways to apply aerosol fire suppression technology in the widest range of applications.

Contact us. Let's work together to protect lives, property, and fight off the disruptive costs of fire at your business.



Stat-X®

www.statx.com/choice

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PN 19090 07/13

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Scan for video



The 3M logo is positioned in the top left corner of the advertisement. It consists of the letters '3M' in a bold, red, sans-serif font. The background of the advertisement is a photograph of a modern building's interior, featuring a glass and metal structure with a large, purple, triangular graphic element that points towards the top right. The lighting is dramatic, with bright light coming from the ceiling and creating strong shadows and highlights on the building's surfaces.

Novec
Brand

3M™ Novec™ 1230 Fire Protection Fluid

Protect what matters.

You're not just safeguarding people, buildings, equipment and operations, you're helping preserve the world we live in. Protect what matters. All of it.

3M Science. Applied to Life.™

Smart. Safe. Sustainable.

When you specify a system for fire protection, your choices could determine if a person, valuable asset or even an entire business survives a fire. 3M™ Novec™ 1230 Fire Protection Fluid helps give you the peace of mind that you've made a smart choice. Its unique science helps safeguard all the things in your care:

- **People.** A larger safety margin protects people.
- **Operations.** No damage to electronic equipment or the data stored on it.
- **Valuable assets.** Safe for paper archives, historical documents, priceless works of art and antiques.
- **The planet.** Very low global warming potential and no impact to the ozone layer.



Greater margin of safety¹ and lower environmental impact

A large safety margin means a higher level of safety for people. And you're not just safeguarding people, you're preserving buildings, equipment, data and the world we live in.

Agent	Novec 1230	Halon 1301	HFC-125	HFC-227ea
Use Concentration	4.5-6%	5%	8.7-12.1%	6.7-8.7%
NOAEL ²	10% ³	5%	7.5%	9%
Safety Margin ⁴	67-122%	Nil	Nil	3-34%
Global Warming Potential ⁵	<1	6290	3170	3350
Ozone Depletion Potential ⁶	0.0	12.0	0.0	0.0
SNAP ⁷ Approved	Yes	No	Yes	Yes

¹ Adjusted per 2012 NFPA 2001 requirements for minimum values (excluding halon); paragraph 5.4.2.4 and Table A.5.4.2.2(b)

² NOAEL for cardiac sensitization

³ NOAEL for acute toxicity, including cardiac sensitization

⁴ Safety Margin = (NOAEL - Use Concentration) / Use Concentration

⁵ Intergovernmental Panel on Climate Change (IPCC) 2013 Method, 100-year 1TH (CO₂=1)

⁶ World Meteorological Organization (WMO) 1998, Model-Derived Method

⁷ Significant New Alternative Policy Program

Specify your system from the inside out.

At 3M, we use science to improve lives. We set out to develop 3M™ Novec™ 1230 Fire Protection Fluid with the intention to find a solution with high performance and a large margin of safety that does no harm to the environment.

Extinguish a fire quickly without harming people or equipment and get back to business.

When you specify a fire protection system with Novec 1230 fluid at its center, you have our assurance it is designed to be:

- **Reliable.** Novec 1230 fluid revolutionized the fire protection market 15 years ago. Today, with more than 50,000 system installations in over 90 countries, and the approvals to back up our promises, we continue to move the industry forward with the purpose of delivering a solution that is designed to work now and for years to come.
- **Consistent.** At 3M, we are proud to be known for consistent, quality products, and as a reliable source of supply time and time again.
- **Flexible.** Engineered to accommodate unusual spaces and design configurations while requiring less space than inert gas systems. Systems may also be recharged quickly and efficiently, should the need arise.

And we're there for you when you need us most. With know-how and technical expertise that is recognized throughout the fire protection market, our global team is dedicated and committed to outstanding customer support.



We give you our word — and a warranty.

When you create a specification, you're making a promise that the system you've identified will serve the business for the long term. Your name and your best effort are in that spec. We think that deserves a promise from us.

Here's how the 3M™ Blue Sky™ Warranty works: If 3M™ Novec™ 1230 Fire Protection Fluid is banned from or restricted in use as a fire protection agent within 20 years after installation due to its environmental properties, we'll refund the purchase price of the fluid.

It's our legacy to you. So you can leave a legacy of your own.

*3M warrants, for a period of 20 years after original installation and subject to noted requirements, that 3M™ Novec™ 1230 Fire Protection Fluid, installed in an approved fire suppression system, will not be restricted for use in fire protection due to its Ozone Depletion Potential (ODP) or Global Warming Potential (GWP) and is not targeted for phase-down by the Montreal Protocol, nor subject to the European F-Gas Regulations targeting the phase-down of production and import of HFCs into Europe; and will not be affected by U.S. EPA SNAP regulations which would render it either unacceptable or acceptable subject to narrow use limits. For complete terms and conditions, or to register your system for the 3M Blue Sky Warranty, visit 3M.com/blueskywarranty.

Typical physical properties of 3M™ Novec™ 1230 Fire Protection Fluid*

With third-party listings and approvals, you can trust Novec 1230 fluid to quickly extinguish a fire while helping protect people and equipment.

Chemical formula	CF ₃ CF ₂ C(O)CF(CF ₃) ₂
Molecular weight	316.04
Boiling point @ 1 atm	49.2°C (120.6°F)
Freezing point	-108°C (-162.4°F)
Density, sat. liquid, 25°C	1.60 g/ml (99.9 lbm/ft ³)
Density, gas @ 1 atm, 25°C	0.0136 g/ml (0.851 lbm/ft ³)
Specific volume @ 1 atm 25°C	0.0733 m ³ /kg (1.175 ft ³ /lb)
Liquid viscosity @ 0°C/25°C	0.56/0.39 centistokes
Heat of vaporization @ BP	88.0 kJ/kg (37.9 BTU/lb)
Solubility of H ₂ O in Novec 1230 fluid	<0.001% by wt.
Vapor pressure @ 25°C	0.404 bar (5.85 psig)
Relative dielectric strength @ 1 atm (N ₂ =1.0)	2.3

*Not for specification purposes



The 3M™ Novec™ Brand Family:
The Novec brand is the hallmark for a variety of proprietary 3M products. Although each has its own unique formula and performance properties, all Novec products are designed to address the need for smart, safe, sustainable solutions in industry-specific applications. These include precision and electronics cleaning, heat transfer, fire protection, lubricant deposition and several specialty chemical applications.

Safety Data Sheet: Consult Safety Data Sheet before use.

Regulatory: For regulatory information about this product, contact your 3M representative.

Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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98-0212-3705-6

Project Site Area

Shands Energy Center Location

Project Site Address: 13191 Shands Road, Stony Creek VA



Shands Energy Center

June 18, 2020

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