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AGENDA

Planning Commission
County of Prince George, Virginia
Organizational Meeting & Business Meeting: Thursday, March 24, 2022
County Administration Bldg. Boardroom, Third Floor
6602 Courts Drive, Prince George, Virginia

Business Meeting 6:30 p.m.

This meeting is being held in person and electronically in accord with Virginia Code Section 15.2-1413. The meeting is accessible by:

If you would like to participate in the meeting via Zoom –

<https://zoom.us/j/5053851421?pwd=V2pjSHFneFRUUE2bjNqQnR3emZoUT09>

Meeting ID: 505 385 1421

Password: 200726

One tap mobile

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During the public comment period you may raise your hand using the Zoom controls on your screen or press *9 on your phone. Visit the Zoom Help Center for more information. If you would like to view the meeting in real time use this link:

https://www.princegeorgecountyva.gov/live_stream/

Public comments may be made in person during any meeting. You may also submit any public comments on our website at

https://www.princegeorgecountyva.gov/departments/board_of_supervisors/public_comment_form.php.

Any public comments received via Zoom, in person or by the website form up until the public comment section is closed by the Chairman of the Planning Commission on March 24, 2022 shall be entered into the meeting minutes.

CALL TO ORDER – Chairman Bresko

Roll Call - Clerk

INVOCATION

PLEDGE OF ALLEGIANCE TO THE U.S. FLAG

ADOPTION OF AGENDA [1] – Chairman Bresko

PUBLIC COMMENTS - Chairman Bresko

The Public Comment period is open to anyone who wishes to speak to the Commissioners on any items not being heard as a Public Hearing item this evening. Please state your name and address, you will have three (3) minutes to speak.

ORDER OF BUSINESS

A-1. Adoption of the Work Session Minutes – February 23, 2022 [2] **Chairman Bresko**

A-2. Adoption of Meeting Minutes – February 24, 2022 [3] **Chairman Bresko**

A.3. Planning Commission Training – [4] **Julie Walton**

PUBLIC HEARINGS

P-1. ORDINANCE AMENDMENT OA-22-01: [5] Julie Walton
Battery Storage

COMMUNICATIONS – [6] Tim Graves, Planner

- A. Actions of the Board of Zoning Appeals
- B. Actions of the Board of Supervisors
 - a. BOS Recap
- C. Upcoming Cases for April 2022
 - a. Special Exception – SE-22-01 – Fung Assembly Hall
 - b. Special Exception – SE-22-02 – Powell Creek Solar Facility
 - c. Special Exception - SE-22-03 – Krenicky Solar Facility

ADJOURNMENT – Chairman Bresko

WORK SESSION – MINUTES

Planning Commission
County of Prince George, Virginia
Work Session Wednesday, February 23, 2022
County Administration Bldg. Planning Conference Room, First Floor
6602 Courts Drive, Prince George, Virginia

Work Session Meeting 5:30 p.m.

CALL TO ORDER - Chairman Bresko called the meeting to order at 5:33 p.m. in the Planning Conference Room. The meeting was held in the alternate location because there was a Board of Supervisors Work Session being held in the Board Room.

Roll Call – Mr. Brown and Mr. Simmons were absent.

Staff Present: Tim Graves, Andre Greene

FEBRUARY 24, 2022 AGENDA REVIEW – Tim Graves reviewed the agenda for the business meeting on February 24, 2022.

February 24, 2022 Case Reviews:

P-1. REZONING AMENDMENT RZ-21-06: Request of SI Virginia II, LLC to amend and replace the conditions of Rezoning RZ-20-04 and Zoning Case Amendment RZ-20-05 to consolidate zoning conditions under one zoning case and eliminate a land use restriction on High Cube Warehouses. The subject property, zoned M-1 Limited Industrial, comprises 157.15 acres located on Quality Way in Southpoint Industrial Park, and is identified as Tax Map 340(22)00-010-0. The Comprehensive Plan indicates the property is suitable for Industrial uses. **Tim Graves reviewed the staff report materials.**

P-2. SPECIAL EXCEPTION SE-21-07: Request of BrightView, LLC, pursuant to Prince George County Zoning Ordinance Section 90-393(8) to permit a special care hospital in a B-1 General Business District, for the purpose of providing outpatient substance abuse services in an existing commercial building. The subject property, approximately 6.645 acres in size, is located at 4140 Crossings Court and is identified as tax parcel 120(0A)00-003-J. The Comprehensive Plan indicates the property is suitable for Commercial uses. **Andre Greene reviewed the staff report materials. The property owner and the applicant were present to answer questions. Minor changes to a condition were discussed.**

P-3. SPECIAL EXCEPTION SE-22-01: Request of Duncan and Suzanne Fung pursuant to Prince George County Zoning Ordinance Section 90-103(9) to permit an Assembly Hall within a R-A, Residential Agricultural District. The subject property is approximately 33.7 acres in size, located at 9099 Golf Course Drive and is identified as Tax Map 460(0A)00-034-0. The Comprehensive Plan indicates the property is suitable for Agricultural uses. **Andre Greene reviewed the staff report materials. The property owner/applicant was present to answer questions.**

ADJOURNMENT – 6:49 p.m.

DRAFT MINUTES
Planning Commission
County of Prince George, Virginia

February 24, 2022

County Administration Building, Board Room, Third Floor
6602 Courts Drive, Prince George, Virginia 23875

This meeting was held in person and electronically in accord with Virginia Code Section 15.2-1413. The meeting was accessible by:

Zoom: <https://zoom.us/j/5053851421?pwd=V2pjSHFneFRLUUE2bjNqQnR3emZoUT09>

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+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)

MEETING CONVENED. The Regular Meeting of the Prince George County Planning Commission was called to order at 6:30 p.m. on Thursday, February 24, 2022 in the Board Room, County Administration Building, 6602 Courts Drive, Prince George, Virginia by Mr. Alex W. Bresko, Chairman.

ATTENDANCE. The following members responded to Roll Call:

| | |
|---------------|---------|
| Mr. Simmons | Present |
| Mrs. Elder | Present |
| Mr. Bresko | Present |
| Mr. Joyner | Present |
| Mrs. Anderson | Present |
| Mr. Brown | Absent |
| Mr. Brockwell | Present |

Also present: Julie C. Walton, Deputy County Administrator, Dan Whitten, County Attorney, Andre Greene, Planner II, Tim Graves, Planner I and Missy Greaves-Smith, Administrative Support Specialist II

INVOCATION. Mrs. Elder provided the Invocation.

PLEDGE OF ALLEGIANCE TO THE FLAG. Mr. Joyner led in the Pledge of Allegiance to the United States flag.

ADOPTION OF THE AGENDA. Mr. Bresko asked the Commissioners for a motion to approve the meeting Agenda for the February 24, 2022 Planning Commission. Mr. Joyner made a motion to approve the meeting Agenda and Mr. Brockwell seconded the motion.

Roll Call:

In favor: (6) Simmons, Elder, Anderson, Brockwell, Bresko, Joyner

Opposed: (0)

Absent: (1) Brown

PUBLIC COMMENT PERIOD. At 6:32 p.m., Mr. Bresko opened the Public Comment Period to anyone who wished to come forward to speak to the Commissioners on topics that were not on the Agenda as a Public Hearing item. Citizens were asked to limit their comments to three (3) minutes.

With no one present or on Zoom indicating they wished to speak, the Public Comment Period was closed at 6:33 p.m.

ORDER OF BUSINESS. Mr. Bresko asked the Commissioners to review the Minutes of the January 24, 2022 Work Session of the Planning Commission. Mrs. Anderson made a motion to approve the January 24, 2022 Work Session Minutes. The motion was seconded by Mrs. Elder.

Roll Call:

In favor: (5) Simmons, Anderson, Elder, Bresko, Joyner

Absent: (1) Brown

Abstain: (1) Brockwell

Mr. Bresko asked the Commissioners to review the Minutes of the January 27, 2022 Planning Commission meeting. Mr. Brockwell made a motion to approve the meeting Minutes of the January 27, 2022 meeting. The motion to approve the Minutes was seconded by Mr. Simmons.

Roll Call:

In favor: (6) Simmons, Elder, Anderson, Brockwell, Bresko, Joyner

Opposed: (0)

Absent: (1) Brown

Mrs. Walton, Deputy County Administrator, presented to the Commissioners a draft Resolution to present to Mr. Easter for his years of dedicated service to the County and the Planning Commission. Mr. Simmons made a motion to move forward with the Resolution and Mr. Brockwell seconded the motion.

Roll Call:

In favor: (6) Simmons, Elder, Anderson, Brockwell, Bresko, Joyner

Opposed: (0)

Absent: (1) Brown

Mrs. Walton discussed the training opportunity for the Planning Commission members hosted by Dr. Mike Chandler. The commissioners were given dates to review. Mrs. Walton indicated a meeting date would be set in the near future.

PUBLIC HEARING.

P-1. REZONING AMENDMENT RZ-21-06: Request of SI Virginia II, LLC to amend and replace the conditions of Rezoning RZ-20-04 and Zoning Case Amendment RZ20-05 to consolidate zoning conditions under one zoning case and eliminate a land use restriction on High Cube Warehouses. The subject property, zoned M-1 Limited Industrial, comprises 157.15 acres located on Quality Way in Southpoint Industrial Park, and is identified as Tax Map 340(22)00-010-0. The Comprehensive Plan indicates the property is suitable for Industrial uses.

Mr. Graves presented the rezoning amendment request to the Commissioners. The County's GIS maps were used to illustrate the property location, current zoning of subject properties and surrounding properties and an aerial view of the area.

Background Information:

Zoning cases RZ-20-04 and RZ-20-05 approved October 27, 2020

- Two tax parcels with different zoning histories → two zoning cases
- Excluded uses (because Traffic Impact Analysis (TIA) required):
 - 155 High-Cube Fulfillment Center Warehouse
 - 156 High-Cube Parcel Hub Warehouse

2021-2022

- Current edition of technical manual does not require TIA for above uses
- Applicant applied for rezoning amendment

Request Summary:

Applicant's Goals:

1. Remove the restriction on 155 High-Cube Fulfillment Center Warehouses and 156 High-Cube Parcel Hub Warehouses; and
2. Consolidate two zoning cases for two tax parcels into one zoning case for one tax parcel

Applicant's Request:

1. Remove the language that excludes the specified uses
2. Replace two lists of conditions with one set of conditions

All other conditions will not change.

Planning & Zoning Staff Review Comments:

- Zoning district will not change
- No objections to the additional proposed uses (permitted by-right in M-1 zoning district)
- A TIA (other than Chapter 527) does not appear to be necessary

- Site Plan submitted with building under construction 648k to 940k SF
- Consistent with Comprehensive Plan
- Proffered conditions are appropriate

Virginia Department of Transportation (VDOT) - *Paul Hinson, Area Land Use Engineer*

1. VDOT agrees that the submitted trip generation data is representative of the proposed rezoning and agrees that no Chapter 527 TIA will be required.
2. Quality Way is classified as a local road. The entrance locations shown on the submitted conceptual site plan appears to meet VDOT's Access Management Spacing standards.
3. VDOT has no objections to the proposed rezoning as presented in the application, conceptual site plan, and submitted proffers.

Proffered Conditions:

Changed conditions:

- #2: Regarding consolidation of parcels (done)
- #6: All M-1 uses permitted

Other conditions (no changes) pertain to:

- General conformance to a conceptual plan
- Vegetative buffers
- Ground cover and landscaping
- Lighting
- Meeting with VDOT

Staff Recommendation:

- Approval, subject to the proffered conditions

Basis:

- Compatible with surrounding uses and comprehensive plan
- No negative feedback received from community
- Proffered conditions are appropriate

Mr. Bresko asked if the subject property was vacant before the current building was built. Mr. Graves confirmed that the parcel was vacant prior to the current structure.

Mr. Joyner asked about the current water capacity situation. Mr. Graves stated the applicant has been in communications with the Utility Department in reference to the water and sewer capacity in that area.

Mr. Bresko asked what the warehouse was going to be used for. Mr. Graves explained that any M-1 zoning use could be a potential tenant and that the owner has built a shell spec building.

Mr. Bresko opened the Public Hearing at 6:49 p.m. to anyone who wished to speak for or against RZ-21-06. Citizens were asked to come forward and state their name and address and they would have three minutes to speak,

Tom Wortham, representing SI Virginia II, LLC, explained how he has been working with the Hollingsworth Company in the Southpoint Business Park for almost thirty years. He expressed that this building is the largest building they have built in the business park. The company is excited about getting a tenant in the building as soon as possible.

With no one else coming forward to speak and no one on Zoom, the Public Hearing was closed at 6:51 p.m.

Mr. Bresko asked the Commissioners if they had any additional questions. Mrs. Elder made a motion to forward the request to the BOS with the recommendation of approval from the Planning Commission. The motion was seconded by Mr. Brockwell.

Roll Call:

In favor: (6) Simmons, Elder, Anderson, Brockwell, Bresko, Joyner

Opposed: (0)

Absent: (1) Brown

P-2. SPECIAL EXCEPTION SE-21-07: Request of BrightView, LLC, pursuant to Prince George County Zoning Ordinance Section 90-393(8) to permit a special care hospital in a B-1 General Business District, for the purpose of providing outpatient substance abuse services in an existing commercial building. The subject property, approximately 6.645 acres in size, is located at 4140 Crossings Court and is identified as tax parcel 120(0A)00-003-J. The Comprehensive Plan indicates the property is suitable for Commercial uses.

Mr. Greene presented the special exception request to the Commissioners. The County's GIS maps were used to illustrate the property location, current zoning of subject properties and surrounding properties and an aerial view of the area.

Background:

BrightView, LLC

- Offers outpatient medication-assisted treatment for drug addiction
 - 54 locations across 5 states:
 - Virginia, Kentucky, Delaware, Ohio and North Carolina
- Seven (7) locations in Virginia:
- Lynchburg, Midlothian, Newport News, Suffolk, Chesapeake (2)

Request Summary:

Applicant's Goals / Details:

- Lease 7,520 SF of space in an existing commercial building
- No significant exterior modifications planned
- At least ten (10) full-time jobs
- Seven (7) patients onsite at any given time
- Full parking load: 17 spaces
- Hours of operation: 8a.m. to 7p.m., Monday - Friday
- Accommodate evening group sessions for people with full-time jobs

Applicant's Request:

- Special Exception for a "special care hospital"
 - Hospital, special care, means an institution rendering care primarily for mental or feeble-minded patients, epileptics, alcoholics or drug addicts.

Review Comments:

Planning & Zoning:

- Minimal impact on surrounding businesses and residences
- Existing commercial complex with sufficient off-street parking
- Surrounding uses: commercial, vacant lot zoned commercial, and single-family residences
- Other approvals required include: Change of use for building, licensure from VA Department of Behavioral Health, PG County business license
- Compatible with comprehensive plan (Future Land Use: Commercial)
- Existing berm and trees to buffer from adjacent residences

Building Inspections Division:

- "I-Institutional" building code use
- Comply with applicable requirements of Building Code and Fire Prevention Code, as reviewed during Site Plan
- Construction permits required if applicable
- Commercial structures to comply with applicable Building Code requirements, as reviewed during Building Permit

Police Department:

- Will any medication be kept on-site? Suboxone for withdrawal?
 - ANSWER: At the time comments were received, the answer was no. A few weeks ago the applicant notified staff and they do wish to keep medications on the property.
- Where are some other BrightView Health locations?
 - ANSWER: [provided]

Recommended Conditions:

Highlights:

- Hours of operation 8:00 a.m. to 7:00 p.m..
- The applicant shall be allowed to store and dispense medication on site. The medication shall be stored in a 2,500 lb. safe, in a badge access only room, that is under 24 hour surveillance by internal cameras. The applicant shall adhere to regulations of the Drug Enforcement Agency (DEA) and the Virginia Board of Pharmacy and will comply with their annual inspections.
- Obtain a change of use permit and a Tenant Upfit permit
- Obtain all required licenses and permits for operation of an outpatient drug addiction services facility
- No loitering shall be allowed after the facility is closed for business
- Full list of recommended conditions in the Staff Report / Draft Ordinance

Staff Recommendation:

- Approval, subject to the recommended conditions
Basis:
 - Request appears compatible with surrounding land uses
 - No negative feedback received from community
 - Recommended conditions provided

Mr. Simmons asked if any research had been conducted on these types of facilities in reference to problems with loitering. Mr. Greene stated he had not but he had been in contact with Denise Waff, Director of the Riverside Criminal Justice Agency. She stated that having drugs stored at this site would cause no greater risk than a local pharmacy.

Mr. Simmons expressed concerns about the new restaurant that opened in that area having issues with unwanted loitering. He asked Mr. Greene if the restaurant owner received the notice about the special exception request. Mr. Greene explained that the notices are only sent to the property owners.

Mr. Bresko opened the Public Hearing at 7:07 p.m. to anyone who wished to speak for or against SE-21-07. Citizens were asked to come forward and state their name and address and they would have three minutes to speak.

Nick Walker, with Roslyn Farms Corporation, stated he was present to represent the owners of the buildings. He explained that they have been in contact with the owners of Primo's restaurant and they are aware of the special exception request and had no concerns.

Mike Dimaggio, Vice-President of Development for Brightview, expressed his support for the request and stated he was available to answer any questions of Commissioners.

With no one else coming forward to speak and no one on Zoom, the Public Hearing was closed at 7:09 p.m.

Mr. Simmons stated that this request does not come without risk.

Mr. Bresko asked the Commissioners if they had any additional questions. Mr. Joyner made a motion to forward the request to the BOS with the recommendation of approval from the Planning Commission. The motion was seconded by Mrs. Elder.

Roll Call:

In favor: (6) Simmons, Elder, Anderson, Brockwell, Bresko, Joyner

Opposed: (0)

Absent: (1) Brown

- P-3. SPECIAL EXCEPTION SE-22-01:** Request of Duncan and Suzanne Fung pursuant to Prince George Zoning Ordinance Section 90-103(9) to permit an Assembly Hall (Wedding Venue) within a R-A, Residential Agricultural District. The subject property is

approximately 33.7 acres in size, located at 9099 Golf Course Drive and is identified as Tax Parcel 460(0A)00-034-0. The Comprehensive Plan indicates the property is suitable for Agricultural uses.

Mr. Greene presented the special exception request to the Commissioners. The County's GIS maps were used to illustrate the property location, current zoning of subject properties and surrounding properties and an aerial view of the area.

Background:

The applicants built a residential dwelling on the subject property in 2021, with approximately 5,700 square feet:

| | |
|---------------------|----------|
| First floor | 2,952 SF |
| Finished half-story | 1,771 SF |
| Balcony | 96 SF |
| Open masonry porch | 936 SF |

Request Summary:

Primary Goal:

- Use the newly constructed building as a wedding venue

Details:

- 4 to 8 events per month, mostly Fridays and Saturdays
- Event operation from 12 P.M. (noon) until 10 P.M.
- Venue uninhabited and locked when there is no event
- 2 restrooms, one warming kitchen
- No cooking or dish washing done at the venue
- Max # wedding guests: 150 persons
- Large graveled area to accommodate 70+ cars
- No employees
- Event host responsible for catering, serving, cleanup, setup, etc.
- Access route:
 - Current, for single-family dwelling: from North via Golf Course Drive
 - Proposed for Assembly Hall: from Southeast via Lake Fungs Road
- Septic capacity:
 - Current: 120 people
 - Proposed per AOSE/PE report: 150 people

Review Comments:

Planning & Zoning:

- Expected impacts: Minimal traffic and noise during events
Mitigated by:
 - 0.5-miles distance off Robin Road
 - Surrounding woodlands
 - Surrounding property mostly owned by same owner

- Proposed conditions
- Surrounding land uses: Woodlands, Lake/Pond, some single-family dwellings
- Other approvals/permits required:
 - Site Plan for the commercial use of the building (Planning & Zoning)
 - Change of Use and a Building Permit for the building (Building Inspections)
 - Commercial entrance permit (VDOT)
 - Health Department permit for the upgrades to well and/or septic
- Compatibility with Comprehensive Plan:
 - Building resembles an agricultural barn

Building Inspections Division:

- “A-2 Assembly” building code use
- Comply with applicable requirements of Building Code and Fire Prevention Code, as reviewed during Site Plan
- Construction permits required for alterations or changes of use to structure(s)
- Commercial structures to comply with applicable Building Code requirements, as reviewed during Building Permit)

Virginia Department of Transportation (VDOT):

- Commercial entrance required (moderate volume)
- Undetermined if access meets VDOT’s criteria for a commercial entrance

Virginia Department of Health (VDH):

- AOSE/PE Report for modifications was forwarded to VDH (awaiting review and comment)

Environmental Division:

- Land disturbance permit required for 10,000+ square feet of land disturbance
- Construction General Permit from DEQ required for 1+ acre of land disturbance

Real Estate Assessor’s Office:

- Certificate of Occupancy for this structure (8-27-21) states “This Structure is not approved for Business or Assembly Usage. This Certificate of Occupancy may be Revoked or Suspended If Violations of This Occupancy Occur.”
- Acreage affected by this special exception would be subject to roll back taxes

Recommended Conditions:

Highlights:

- Hours of operation: Mon-Sat from noon until 10:00 P.M.
- All outdoor wedding ceremonies conclude by 7:00 P.M.
- All reception activities indoors incl. dancing and music
- Ingress and Egress restricted to Lake Fungs Road
- Provide adequate off-street parking
- No on-site food preparation and dishwashing
- One freestanding sign up to 60 square feet in size, at entrance
- Obtain all required permits and certifications
- Full list of recommended conditions in the Staff Report / Draft Ordinance

Mr. Greene added three (3) additional conditions and the applicant has agreed to the following:

- The applicant shall possess and maintain liability insurance in an amount no less than \$ 1 million.
- Occupancy shall be limited to no more than 150 persons per event.
- A site plan shall be required to be prepared and approved prior to submittal of the Change of Use Application.

Staff Recommendation:

- Approval, subject to the recommended conditions
- Basis:
- Request appears compatible with surrounding land uses
 - No negative feedback received
 - Recommended conditions provided

Mr. Simmons asked for clarification on the maximum number of people allowed at an event. Mr. Greene explained that the maximum occupancy shall be no more than 150 people.

Mr. Simmons asked about the use of alcohol during an event. Dan Whitten stated that in Condition #12, an alcohol permit would need to be obtained if alcohol was going to be served.

Mr. Bresko opened the Public Hearing at 7:27 p.m. to anyone who wished to speak for or against SE-22-01. Citizens were asked to come forward and state their name and address and they would have three minutes to speak.

Brian Hayes, 9005 Golf Course Drive, stated that the entrance to the subject property is right next to his property. The traffic from an event the Fung's had last summer came along the whole side of his property. The noise from the event was heard all the way to his property. He expressed concerns about the traffic and noise of 4-6 events monthly ruining their quality of life. Mr. Hayes suggested to the Commissioners to vote no.

Clayton McComber, 9095 Golf Course Drive, stated that all of the construction equipment has come through the shared driveway that he has with Mr. Fung. He stated he was not in favor of the special exception.

Eddie Jones, 9110 Golf Course Drive, expressed his concerns with the additional traffic along Golf Course Drive. He stated the road is very narrow and does not have yellow lines going all the way up to the tunnel.

Mr. Simmons asked for clarification about the easement and driveway to the property. Mr. Bresko explained that the subject property uses a shared easement off Golf Course Drive and Lake Fungs Road is accessed from Robin Road.

Mr. Fung stated he wants the event traffic to use Lake Fungs Road off Robin Road and have the Golf Course Road entrance locked.

Mr. Bresko asked Mr. Fung if he uses the driveway off Golf Course Drive. He explained that he built the barn-style home for his son and during construction, they did use the entrance off Golf Course Drive. He stated he wanted to use the entrance at Lake Fungs Road for events to avoid problems with the neighbors.

Mr. Brockwell clarified with Mr. Fung about the address given to guests would be Mr. Fung's personal house address on Lake Fungs Road. All guest would enter off Robin Road on to Lake Fungs Road.

Mr. Bresko suggested that the address be changed to Lake Fungs Road to prevent traffic entering off Golf Course Drive. Mr. Greene also suggested that Mr. Fung could request an address change. Mr. Fung agreed to make that request.

Mr. Whitten clarified that Mr. Fung would need to work with the GIS Department and the Assessor's office and request a Lake Fungs Road address for this location for 911 purposes.

Mrs. Anderson asked about the use of King Drive for tours, etc.

Mr. Fung asked what would happen to the easement if he does not use it. Mr. Whitten explained that the easement is "platted" and you would not lose the easement of Golf Course Drive.

Sarah Heretick, 9095 Golf Course Drive, was present via Zoom. She stated she resides with Clayton McComber and they were told that the easement would be used for them and Mr. Fung's son. She stated events have already been conducted using the entrance off Golf Course Drive.

With no one else coming forward to speak and no one else on Zoom, the Public Hearing was closed at 7:49 p.m.

Mr. Bresko asked the Commissioners if they had any additional questions. He continued to express his opinion to resolve the address situation before moving forward with a vote. Mr. Joyner also suggested to delay the discussion.

Mr. Joyner made a motion to postpone the request to the April Planning Commission meeting. Mr. Brockwell seconded the motion.

Roll Call:

In favor: (5) Simmons, Elder, Brockwell, Bresko, Joyner

Abstain: (1) Anderson

Absent: (1) Brown

PLANNER'S COMMUNICATION TO THE COMMISSION. Mr. Graves presented to the Commissioners the following updates:

1. Actions of the Board of Zoning Appeals (BZA)
 - a. No cases or applications were received
 - i. February and March meetings were cancelled
2. Actions of the Board of Supervisors (BOS)
 - a. Feb 22 approved the request for the townhouse development
3. Planning Commission Communications
 - a. Upcoming Cases for March
 - i. Solar facility (20-30 acres) on James River Drive
 - ii. Draft Battery Storage Facility Ordinance

ADJOURNMENT. At 7:50 p.m., Mr. Bresko asked the Commissioners if they had any additional questions. If not, he would entertain a motion to adjourn. Mr. Brockwell made a motion to adjourn and Mr. Joyner seconded the motion. Roll was called on the motion.

Roll Call:

In favor: (6) Simmons, Elder, Anderson, Brockwell, Bresko, Joyner

Opposed: (0)

Absent: (1) Brown



County of Prince George, Virginia

"A global community where families thrive and businesses prosper"

INTEROFFICE MEMORANDUM

TO: Julie Walton- Director of Community Development
FROM: Andre Greene – Planner II *AG*
DATE: March 16, 2022
RE: Available Dates for Planning Commission Education/Training

I have contacted Dr. Michael Chandler about his availability to conduct education/training with the Planning Commission. After receiving his available dates and reviewing the department calendar with Missy, the dates that are most convenient are Thursday, May 5th and Friday, May 6th.

ORDINANCE AMENDMENT REQUEST – OA-22-01
PLANNING COMMISSION STAFF REPORT – MARCH 24, 2022

RESUME

APPLICANT: COUNTY OF PRINCE GEORGE

PROPERTY OWNER: N/A

REQUEST: TO AMEND “THE CODE OF THE COUNTY OF PRINCE GEORGE, VIRGINIA”, 2005, AS AMENDED, BY ADDING § 90-1042 TO PROVIDE REQUIREMENTS FOR BATTERY ENERGY STORAGE SYSTEMS, AND BY MODIFYING §90-443, §90-493, §90-543, §90-53 AND §90-103 TO ADD TIER 2 BATTERY ENERGY STORAGE SYSTEMS AS A USE PERMITTED BY SPECIAL EXCEPTION IN THE M-1, M-2, M-3, A-1 AND R-A ZONING DISTRICTS.

STAFF RECOMMENDATION: Staff recommends approval of the Ordinance Amendment

STAFF REPORT CONTENTS/

ATTACHMENTS

1. Resume
2. Sample Motions
3. Draft Ordinance for Board of Supervisors
4. Staff Report
5. Copy of Related Materials / Handouts

Sample Motions

APPROVE:

"I move to forward request OA-22-01 to the Board with a recommendation for APPROVAL, and the reason(s) for this recommendation is/are:"

(EXAMPLES):

- "It is compatible with the Comprehensive Plan and current surrounding uses and zoning districts."
- "It is expected to benefit the general welfare of the community."
- "The expected off-site impacts appear to be adequately addressed by the Ordinance."
- Other _____

APPROVE WITH CHANGES:

I move to forward request OA-22-01 to the Board with a recommendation for APPROVAL, subject to the following changes:

DENY:

I move to forward request OA-22-11 to the Board with a recommendation for DENIAL and the reason(s) for this recommendation are: (SPECIFY)

POSTPONE:

I move to POSTPONE request OA-22-01 until _____ to allow time for _____
(DATE OR MONTH)

(ACTION/EVENT)

ORDINANCE TO AMEND "THE CODE OF THE COUNTY OF
PRINCE GEORGE, VIRGINIA", 2005, AS AMENDED, BY
ADDING § 90-1042 TO PROVIDE REQUIREMENTS FOR BATTERY ENERGY STORAGE
SYSTEMS, AND BY MODIFYING § 90-443, § 90-493, § 90-543, § 90-53 AND § 90-103 TO
ADD TIER 2 BATTERY ENERGY STORAGE SYSTEMS AS A USE PERMITTED BY
SPECIAL EXCEPTION IN THE M-1, M-2, M-3, A-1 AND R-A ZONING DISTRICTS.

BE IT ORDAINED by the Board of Supervisors of Prince George County:

- (1) *That The Code of the County of Prince George, Virginia, 2005, as amended, is amended by adding § 90-1042 as follows:*

CHAPTER 90 - ZONING

Sec. 90-1042 – Battery Energy Storage Systems

1. Authority.

This Battery Energy Storage Systems Ordinance is adopted pursuant to the Code of Virginia, § 15.2-2280, of the Commonwealth of Virginia, which authorizes the County of Prince George to adopt zoning provisions that advance and protect the health, safety and welfare of the community.

2. Statement of Purpose.

This Battery Energy Storage System Ordinance is adopted to advance and protect the public health, safety, welfare, and quality of life of the County of Prince George by creating regulations for the installation and use of battery energy storage systems, with the following objectives:

- A. To provide a regulatory scheme for the designation of properties suitable for the location, construction and operation of battery energy storage systems;
- B. To ensure compatible land uses in the vicinity of the areas affected by battery energy storage systems;
- C. To mitigate the impacts of battery energy storage systems on environmental resources such as important agricultural lands, forests, wildlife and other protected resources; and
- D. To create synergy between battery energy storage system development and the surrounding community.

3. Definitions.

As used in this Section, the following terms shall have the meanings indicated:

ANSI: American National Standards Institute

BATTERY(IES): A single cell or a group of cells connected together electrically in series, in parallel, or a combination of both, which can charge, discharge, and store energy electrochemically. For the purposes of this law, batteries utilized in consumer products are excluded from these requirements.

BATTERY ENERGY STORAGE MANAGEMENT SYSTEM: An electronic system that protects energy storage systems from operating outside their safe operating parameters and

disconnects electrical power to the energy storage system or places it in a safe condition if potentially hazardous temperatures or other conditions are detected.

BATTERY ENERGY STORAGE SYSTEM: One or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time, not to include a stand-alone 12-volt car battery or an electric motor vehicle. A battery energy storage system is classified as a Tier 1 or Tier 2 Battery Energy Storage System as follows:

- A. Tier 1 Battery Energy Storage Systems have an aggregate energy capacity less than or equal to 600kWh and, if in a room or enclosed area, consist of only a single energy storage system technology.
- B. Tier 2 Battery Energy Storage Systems have an aggregate energy capacity greater than 600kWh or are comprised of more than one storage battery technology in a room or enclosed area.

CELL: The basic electrochemical unit, characterized by an anode and cathode, used to receive, store, and deliver electrical energy.

COMMISSIONING: A Systematic process that provides documented confirmation that a battery energy storage system functions according to the intended design criteria and complies with applicable code requirements.

DEDICATED-USE BUILDING: A building that is built for the primary intention of housing battery energy storage system equipment, is classified as Group F-1 occupancy as defined in the latest adopted editions of the Virginia Uniform Statewide Building Code ("USBC") and the International Building Code, and complies with the following:

- 1) The building's only use is battery energy storage, energy generation, and other electrical grid-related operations.
- 2) No other occupancy types are permitted in the building.
- 3) Occupants in the rooms and areas containing battery energy storage systems are limited to personnel that operate, maintain, service, test, and repair the battery energy storage system and other energy systems.
- 4) Administrative and support personnel are permitted in areas within the buildings that do not contain battery energy storage system, provided the following:
 - a) The areas do not occupy more than 10 percent of the building area of the story in which they are located.
 - b) A means of egress is provided from the administrative and support use areas to the public way that does not require occupants to traverse through areas containing battery energy storage systems or other energy system equipment.

ENERGY CODE: The Virginia USBC Energy Conservation Construction Code, as currently in effect and as hereafter amended from time to time.

FIRE CODE: The fire code sections of the USBC and the Virginia Statewide Fire Prevention Code, as currently in effect and as hereafter amended from time to time.

NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL): A U.S. Department of Labor designation recognizing a private sector organization to perform certification for

certain products to ensure that they meet the requirements of both the construction and general industry OSHA electrical standards.

NEC: National Electric Code.

NFPA: National Fire Protection Association.

NON-DEDICATED-USE BUILDING: All buildings that contain a battery energy storage system and do not comply with the dedicated-use building requirements.

NON-PARTICIPATING PROPERTY: Any property that is not a participating property.

NON-PARTICIPATING RESIDENCE: Any residence located on non-participating property.

OCCUPIED COMMUNITY BUILDING: Any building in Occupancy Group A, B, E, I, R, as defined in the USBC and/or the International Building Code, including but not limited to schools, colleges, daycare facilities, hospitals, correctional facilities, public libraries, theaters, stadiums, apartments, hotels, and houses of worship.

PARTICIPATING PROPERTY: A battery energy storage system host property or any real property that is the subject of an agreement that provides for the payment of monetary compensation to the landowner from the battery energy storage system owner (or affiliate) regardless of whether any part of a battery energy storage system is constructed on the property.

UNIFORM CODE: The Virginia Uniform Statewide Building Code adopted pursuant to § 36-98 of the Code of Virginia, as currently in effect and as hereafter amended from time to time.

4. Applicability.

- A. The requirements of this Ordinance shall apply to all battery energy storage systems permitted, installed, or modified in the County of Prince George after the effective date of this Ordinance, excluding general maintenance and repair.
- B. Battery energy storage systems constructed or installed prior to the effective date of this Ordinance shall not be required to meet the requirements of this Ordinance.
- C. Modifications to, retrofits or replacements of an existing battery energy storage system that increase the total battery energy storage system designed discharge duration or power rating shall be subject to this Ordinance.

5. General Requirements.

- A. All battery energy storage system installations shall comply with site plan requirements in accordance with Section 90-824.
- B. All battery energy storage systems, all Dedicated Use Buildings, and all other buildings or structures that (1) contain or are otherwise associated with a battery energy storage system

and (2) subject to the Uniform Code and/or the Energy Code shall be designed, erected, and installed in accordance with all applicable provisions of the Uniform Code, all applicable provisions of the Energy Code, and all applicable provisions of the codes, regulations, and industry standards as referenced in the Uniform Code, the Energy Code, and the Code of the County of Prince George.

- C. All battery storage systems which include batteries of various chemistries and types, are classified as hazardous waste upon reaching end-of-life (EOL) or in a condition/state of degradation that requires replacement. Transport and Disposal of all such components and solid and hazardous waste shall be in accordance with local, state, and federal hazardous waste disposal regulations.

6. Permitting Requirements for Tier 1 Battery Energy Storage Systems.

Tier 1 Battery Energy Storage Systems shall be permitted in all zoning districts, subject to the Uniform Code and are exempt from separate site plan review.

7. Permitting Requirements for Tier 2 Battery Energy Storage Systems.

Tier 2 Battery Energy Storage Systems are permitted through the issuance of a Special Exception by the Board of Supervisors within the M-1, M-2, M-3, A-1 and R-A zoning districts, and shall be subject to the Special Exception application process, the USBC, and the site plan application requirements set forth in this Section. All applications shall address at a minimum the following items:

- A. Utility Lines and Electrical Circuitry. All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way.
- B. Signage.
 - 1) The signage shall be in compliance with ANSI Z535 and shall include the type of technology associated with the battery energy storage systems, any special hazards associated, the type of suppression system installed in the area of battery energy storage systems, and 24-hour emergency contact information, including reach-back phone number.
 - 2) As required by the NEC, disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.
- C. Lighting. Lighting of the battery energy storage systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.
- D. Vegetation and tree-cutting. Areas within 20 feet on each side of Tier 2 Battery Energy Storage Systems shall be cleared of combustible vegetation and other combustible growth.

Single specimens of trees, shrubbery, or cultivated ground cover such as green grass, ivy, succulents, or similar plants used as ground covers shall be permitted to be exempt provided that they do not form a means of readily transmitting fire. Removal of trees should be minimized to the extent possible.

- E. Noise. The average noise generated from the battery energy storage systems, components, and associated ancillary equipment at any time shall not exceed a noise level of 20 dBA as measured at the outside wall of any non-participating residence or occupied community building. Applicants may submit equipment and component manufacturers' noise ratings to demonstrate compliance. The applicant may be required to provide Operating Sound Pressure Level measurements from a reasonable number of sampled locations at the perimeter of the battery energy storage system to demonstrate compliance with this standard.
- F. Decommissioning.
- 1) Decommissioning Plan. The applicant shall submit a decommissioning plan to be implemented upon abandonment and/or in conjunction with removal from the facility. The decommissioning plan shall include:
 - a. A narrative description of the activities to be accomplished, including who will perform that activity and at what point in time, for complete physical removal of all battery energy storage system components, structures, equipment, security barriers, and transmission lines from the site;
 - b. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations;
 - c. The anticipated life of the battery energy storage system;
 - d. The estimated decommissioning costs and how said estimate was determined;
 - e. The method of ensuring that funds will be available for decommissioning and restoration;
 - f. The method by which the decommissioning cost will be kept current;
 - g. The manner in which the site will be restored, including a description of how any changes to the surrounding areas and other systems adjacent to the battery energy storage system, such as, but not limited to, structural elements, building penetrations, means of egress, and required fire detection suppression systems, will be protected during decommissioning and confirmed as being acceptable after the system is removed; and
 - h. A listing of any contingencies for removing an intact operational energy storage system from service, and for removing an energy storage system from service that has been damaged by a fire or other event.
 - 2) Decommissioning fund. The owner and/or operator of the energy storage system shall continuously maintain the fund or bond payable to the County of Prince George, in a form approved by the County of Prince George for the removal of the battery energy storage system, in an amount to be determined by the County of Prince George, for the period of the life of the facility. This fund may consist of a letter of credit Virginia-licensed financial institution. All costs of the financial security shall be borne by the applicant.

G. Site plan application. For a Tier 2 Battery Energy Storage System requiring a Special Exception Permit, site plan approval shall be required. Any site plan application shall include the following information in addition to the items listed in Section 90-824:

- (1) Property lines and physical features, including roads, for the project site.
- (2) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, and screening vegetation or structures.
- (3) A three-line electrical diagram detailing the battery energy storage system layout, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and over current devices.
- (4) A preliminary equipment specification sheet that documents the proposed battery energy storage system components, inverters and associated electrical equipment that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit.
- (5) Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the battery energy storage system. Such information of the final system installer shall be submitted prior to the issuance of building permit.
- (6) Name, address, phone number, and signature of the project Applicant, as well as all the property owners, demonstrating their consent to the application and the use of the property for the battery energy storage system.
- (7) Zoning district designation for the parcel(s) of land comprising the project site.
- (8) Commissioning Plan. Such plan shall document and verify that the system and its associated controls and safety systems are in proper working condition per requirements set forth in the all applicable codes. Battery energy storage system commissioning shall be conducted by a Virginia Licensed Professional Engineer after the installation is complete but prior to final inspection and approval. A report describing the results of the system commissioning and including the results of the initial acceptance testing shall be provided prior to final inspection and approval and maintained at an approved on-site location.
- (9) Fire Safety Compliance Plan.
- (10) Operation and Maintenance Manual. Such plan shall describe continuing battery energy storage system maintenance and property upkeep, as well as design, construction, installation, testing and commissioning information.
- (11) Erosion and sediment control and storm water management plans.
- (12) Emergency Operations Plan.
 - a. Procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions.
 - b. Procedures for inspection and testing of associated alarms, interlocks, and controls.
 - c. Procedures to be followed in response to notifications from the Battery Energy Storage Management System, when provided, that could signify potentially dangerous conditions, including shutting down equipment, summoning service

- and repair personnel, and providing agreed upon notification to fire department personnel for potentially hazardous conditions in the event of a system failure.
- d. Emergency procedures to be followed in case of fire, explosion, release of liquids or vapors, damage to critical moving parts, or other potentially dangerous conditions. Procedures can include sounding the alarm, notifying the fire department, evacuating personnel, de-energizing equipment, and controlling and extinguishing the fire.
 - e. Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required.
 - f. Procedures for dealing with battery energy storage system equipment damaged in a fire or other emergency event, including maintaining contact information for personnel qualified to safely remove damaged battery energy storage system equipment from the facility.
 - g. Water containment plan.
 - h. Other procedures as determined necessary by the County of Prince George to provide for the safety of occupants, neighboring properties, and emergency responders.
 - i. Procedures and schedules for conducting drills of these procedures and for training local first responders on the contents of the plan and appropriate response procedures.

H. Special Exception Permit Standards.

- (1) Setbacks. Tier 2 Battery Energy Storage Systems shall comply with the setback requirements of the underlying zoning district for principal structures or 100 feet, whichever is greatest.
 - (2) Lot size. Tier 2 Battery Energy Storage Systems shall have a minimum lot size of 5 acres and maximize buffer areas to adjoining properties regardless of lot topography. Facilities shall be sited to avoid wetlands, floodplains, and any other environmental concerns.
 - (3) Height. Tier 2 Battery Energy Storage Systems shall comply with the building height limitations for principal structures of the underlying zoning district.
 - (4) Fencing Requirements. Tier 2 Battery Energy Storage Systems, including all mechanical equipment, shall be enclosed by a 7-foot-high security type fence with a self-locking gate to prevent unauthorized access unless housed in a secure, dedicated-use building and not interfering with ventilation or exhaust ports.
 - (5) Screening and Visibility. Tier 2 Battery Energy Storage Systems shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area and not interfering with ventilation or exhaust ports.
- I. Ownership Changes. If the owner of the battery energy storage system changes or the owner of the property changes, the special exception permit shall remain in effect, provided that the successor owner or operator assumes in writing all of the obligations of the special exception permit, site plan approval, and decommissioning plan. A new owner or operator

of the battery storage system shall notify the County Planning Division and County Attorney of such change in ownership or operator within 30 days of the ownership change. A new owner or operator must provide such notification to the County in writing. The special exception permit and all other local approvals for the battery energy storage system would be void if a new owner or operator fails to provide written notification to the County in the required timeframe. Reinstatement of a void special exception permit will be subject to the same review and approval process for new applications under this Ordinance.

J. Copy of provider service agreement with energy/utility provider.

8. Safety

A. System Certification. Battery energy storage systems and equipment shall be listed by a Nationally Recognized Testing Laboratory to UL 9540 (Standard for battery energy storage systems and Equipment) or approved equivalent, with subcomponents meeting each of the following standards as applicable:

- 1) UL1973 (Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail Applications),
- 2) UL 1642 (Standard for Lithium Batteries),
- 3) UL 1741 or UL 62109 (inverters and Power Converters),
- 4) Certified under the applicable electrical, building, and fire prevention codes as required.
- 5) Alternatively, field evaluation by an approved testing laboratory for compliance with UL 9540 (or approved equivalent) and applicable codes, regulations and safety standards may be used to meet system certification requirements.

B. Site Access. Battery energy storage systems shall be maintained in good working order and in accordance with industry standards. Site access shall be maintained, including access maintenance, repair, and snow removal at a level acceptable to the local fire department.

C. Battery energy storage systems, components, and associated ancillary equipment shall have required working space clearances, and electrical circuitry shall be within weatherproof enclosures marked with the environmental rating suitable for the type of exposure in compliance with NFPA 70.

9. Abandonment

The battery energy storage system shall be considered abandoned when it ceases to operate consistently for more than 24 months. If the owner and/or operator fails to comply with decommissioning upon any abandonment, the County of Prince George may, as its discretion, enter the property and utilize the available bond and/or security for the removal of a Tier 2 Battery Energy Storage System and restoration of the site in accordance with the decommissioning plan.

10. Enforcement

Any violation of this Battery Energy Storage System shall be subject to the same enforcement requirements, including the civil and criminal penalties, provided for in the building, zoning, or land use regulations of the County of Prince George.

11. Severability

The invalidity of unenforceability of any section, subsection, paragraph sentence, clause, provision, or phrase of the aforementioned sections, as declared by the valid judgment of any court of competent jurisdiction to be unconstitutional, shall not affect the validity or enforceability of any other section, subsection, paragraph, sentence, clause, provision, or phrase, which shall remain in full force and effect.

- (2) *That The Code of the County of Prince George, Virginia, 2005, as amended, is amended by modifying § 90-443 as follows to add a use permitted by special exception in the M-1 zoning district:*

(7) Tier 2 Battery Energy Storage System, in accordance with Section 90-1042.

- (3) *That The Code of the County of Prince George, Virginia, 2005, as amended, is amended by modifying § 90-493 as follows to add a use permitted by special exception in the M-2 zoning district:*

(7) Tier 2 Battery Energy Storage System, in accordance with Section 90-1042.

- (4) *That The Code of the County of Prince George, Virginia, 2005, as amended, is amended by modifying § 90-543 as follows to add a use permitted by special exception in the M-3 zoning district:*

Sec. 90-543. - Uses permitted by special exception/~~conditional use~~.

The following uses **and structures is are** permitted by special exception/~~conditional use~~ in the M-3 heavy industrial district:

(1) sSanitary landfills in accordance with the requirements of section 90-1033.

(2) Tier 2 Battery Energy Storage System, in accordance with Section 90-1042.

- (5) *That The Code of the County of Prince George, Virginia, 2005, as amended, is amended by modifying § 90-53 as follows to add a use permitted by special exception in the A-1 zoning district:*

(60) Tier 2 Battery Energy Storage System, in accordance with Section 90-1042.

- (6) *That The Code of the County of Prince George, Virginia, 2005, as amended, is amended by modifying § 90-103 as follows to add a use permitted by special exception in the R-A zoning district:*

(58) Tier 2 Battery Energy Storage System, in accordance with Section 90-1042.

- (7) *That the Ordinance shall be effective upon adoption.*



PLANNING COMMISSION STAFF REPORT

Public Hearing March 24, 2022

OA-22-01

Applicant: Prince George County

Case Manager: Julie C. Walton

I. Request

Prince George County is requesting a Zoning Ordinance Text Amendment to permit the use of Battery Energy Storage Systems and facilities as a use allowed by Special Exception in the M-1, M-2, and M-3, A-1 and R-A zoning districts. In order for this to be permitted, staff is requesting the proposed Ordinance Text Amendment be approved.

II. Meeting Information

Planning Commission Public Hearing: March 24, 2022

Board of Supervisors Public Hearing: May 11, 2022 (Tentative)

III. Background

Planning staff has received inquiries for “stand alone” battery energy storage use and development.

Battery Energy Storage Facilities store electrical energy that can be used for short periods of time to reduce peak power demand and lessen the likelihood of power outages. Currently, the Prince George County Zoning Ordinance does not permit this use as a “stand alone” use in any zoning district. They are currently only allowed when directly related to, and on site with, a solar energy facility (as an accessory use). This amendment will allow this land use as a primary use in certain districts by Special Exception, defines the use and associated terms, and adds supplemental regulations for the new land use.

The Virginia State Corporation Commission and the Virginia General Assembly have enacted regulations and legislation that require Virginia’s power companies to achieve the deployment of target levels of energy storage in Virginia by 2035. In addition, there are interim target dates for levels of active energy storage in 2025 and 2030. Current state regulations mandate that by 2045, all of Dominion’s electricity used in Virginia is required to be generated from clean energy sources (wind, solar, hydro, bio, etc.).

Battery energy storage facilities typically are located close to power substations and grid lines. However, as technology advances, the facilities may be able to be located separate from substations. The amendment text addresses setbacks from adjoining properties, buffers, and noise levels in an effort to mitigate any potential impacts on surrounding uses/properties.

Staff has developed the proposed Ordinance text amendment in consultation with the County Attorney, other localities, and our consultants with the Rural Solar Development Coalition.

IV. Planning and Zoning Review Comments

1. Expected impacts on adjacent properties and roadways:
Expected impacts (such as noise, sight, access, decommissioning, etc.) are addressed in the Ordinance amendment and mitigated by the requirements.
2. Other zoning approvals/processes required:
A proposed project will be subject to the Special Exception process. If approved, a project would be required to submit site plans for review by all relevant County departments and state agencies.

V. Supplemental Staff Review Comments

Virginia Department of Transportation (VDOT) - Paul Hinson, Area Land Use Engineer

1. Section 8.B. Site Access – Section discussed need to maintain entrance to fire department standards. Did not know if mention needed to VDOT entrance standards or if this is covered by reference to site plan requirements.

The departments below reviewed this request and had no additional comments.

Building Inspections Division – Charles Harrison III, Building Official
Economic Development – Stacey English, Economic Development Specialist
Utilities Department - Frank Haltom, Director of Engineering and Utilities
Real Estate Assessor - Carol Crawford, Real Estate Operations Coordinator
Fire & EMS Department – Chief Paul Beamon
Environmental Division - Angela Blount, Environmental Program Coordinator
Police Department / Sheriff's Department
Prince George County Public Schools – Dr. Lisa Pennycuff, Superintendent
Virginia Department of Health - Alice Weathers, Environmental Health Specialist
Planning and Zoning Division - Andre Greene, Planner II and Tim Graves, Planner I

VI. Public Notice and Community Feedback

1. Staff ran the required legal ads for this request in the *Progress-Index* prior to the public hearing. Copies are included for your reference.
2. Comments from interested parties were received prior to finalizing this report, and copies are included for your review.

VII. Staff Recommendation

APPROVAL

This recommendation is based on the following considerations:

1. No negative feedback was received from the community prior to publishing this staff report.
2. This land use is necessary for utility companies to meet state and federal energy requirements.
3. Staff has prepared appropriate requirements for this land use which are intended to limit any potential impacts on adjacent property owners and the surrounding community.

RECEIVED
MAR 09 2022
BY: [signature]

Govt Public Notices

PUBLIC NOTICE
PRINCE GEORGE
COUNTY

Notice is hereby given to all interested parties regarding the following public meeting: The Prince George Planning Commission will hold a public hearing on Thursday, March 24, 2022 beginning at 6:30 p.m. concerning the following request:
ORDINANCE TO AMEND "THE CODE OF THE COUNTY OF PRINCE GEORGE, VIRGINIA", 2005, AS AMENDED, BY ADDING § 90-1042 TO PROVIDE REQUIREMENTS FOR BATTERY ENERGY STORAGE SYSTEMS, AND BY MODIFYING § 90-443, §

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90-493, § 90-543, § 90-53 AND § 90-103 TO ADD TIER 2 BATTERY ENERGY STORAGE SYSTEMS AS A USE PERMITTED BY SPECIAL EXCEPTION IN THE M-1, M-2, M-3, A-1 AND R-A ZONING DISTRICTS. The public hearing will be held in the Board Room, third floor, County Administration Building, 6602 Courts Drive, Prince George, Virginia 23875, pursuant to §15.2-2204, §15.2-2225, §15.2-2232, and §15.2-2285 of The Code of Virginia (1950, as amended). A copy of the related material may be reviewed or obtained at the Community Development and Code Compliance Department in the County Administration Building between 8:30 a.m.-5:00 p.m., Monday-Friday. All interested persons are invited to participate in the public hearing in person or electronically by Zoom. A

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live video stream will be available at www.princegeorgecountyva.gov/live_stream/. Public comments can be submitted prior to 5:00 p.m. on the public hearing date. Public Comment submittal forms and information on accessing this meeting electronically are available at www.princegeorgecountyva.gov.
Tim Graves
Planner
March 9, 16, 2022 #7011000

RECEIVED
MAR 16 2022
BY: [signature]

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amended). A copy of the related material may be reviewed or obtained at the Community Development and Code Compliance Department in the County Administration Building between 8:30 a.m.-5:00 p.m., Monday-Friday. All interested persons are invited to participate in the public hearing in person or electronically by Zoom. A live video stream will be available at www.princegeorgecountyva.gov/live_stream/. Public comments can be submitted prior to 5:00 p.m. on the public hearing date. Public Comment submittal forms and information on accessing this meeting electronically are available at www.princegeorgecountyva.gov.
Tim Graves
Planner
March 9, 16, 2022 #7011000

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PUBLIC NOTICE
PRINCE GEORGE
COUNTY

Notice is hereby given to all interested parties regarding the following public meeting: The Prince George Planning Commission will hold a



Virginia Streamlines Battery Storage Permitting

March 2021

HB 2148

Status: Signed by the Governor

HB 2148 adds battery storage projects up to 150 MW to the state's "permit-by-rule" process administered by the Department of Environmental Quality ("DEQ"). The permit-by-rule provides a simple, low-cost, and streamlined method for permit approval that avoids the need for storage developers to apply for a permit with the State Corporation Commission ("SCC").

Background

Virginia Clean Economy Act

In 2020, Virginia passed the Clean Economy Act ("VCEA"), groundbreaking legislation that set the highest energy storage target in the nation at 3,100 MW. Read ESA's summary of the VCEA [here](#). In anticipation of the law's passage, Dominion Energy issued a Request for Proposal for 250 MW of energy storage resources in March of 2020, presenting an immediate significant opportunity for energy storage development in Virginia.

In December, the SCC issued [final rules](#) for the implementation of the VCEA's energy storage targets. The rules set interim targets for Dominion Energy and Appalachian Power to achieve the combined 3,100 MW target, as well as guidelines for competitive procurement and permitting of energy storage systems above 1 MW.

Existing Permit-By-Rule Program for Renewable Energy

Virginia originally established a permit-by-rule program for small renewable energy projects in 2009. The program was amended by the legislature several times over the last decade to include solar and wind projects up to 150 MW and small hydropower projects up to 20 MW. Under permit-by-rule, developers have greater certainty because a project is deemed approved if it contains all the components and meets the requirements of the regulation.

Solar projects under 500 kW are exempt from any permit requirement, and projects 500 kW to 5 MW must submit a certification from the local government confirming that the project complies with all applicable land use ordinances. For projects greater than 5 MW, the following project information items are required to receive a permit-by-rule:

- 1) Permit application;
- 2) Analysis of beneficial and adverse impacts on natural resources;
- 3) Determination of likely significant adverse resources;
- 4) Mitigation plan;
- 5) Site plan and context map requirements;



- 6) Project design standards; and
- 7) Public notice and 30-day comment period.

Legislative Summary

Battery storage added to permit-by-rule

HB 2148 simply adds battery storage to the eligible technologies for the DEQ's permit-by-rule, described as "an energy storage facility that uses electrochemical cells to convert chemical energy." The legislation orders DEQ to promulgate regulations to implement the addition of battery storage no later than January 1, 2022. It is up to DEQ's discretion whether to extend the regulations to energy storage projects that currently apply to solar projects, including minimal standards for projects of less than 5 MW size, or to create a new set of regulations.

Any project that is not eligible for permit-by-rule, either because it is too large or because it does not meet the technological definition in the legislation, will be required to apply for a permit with the SCC according to the requirements defined in the [energy storage regulations](#) adopted in December 2020.

For More Information

The bill text can be accessed here: [HB 2148](#)

For more information, please contact ESA at info@energystorage.org.

[Home](#) > [News](#) > [Regions](#) > Dominion plans energy storage facility for Chesterfield

Dominion plans energy storage facility for Chesterfield

PUBLISHED DECEMBER 31, 2021

BY [RYAN MCKINNON](https://www.virginiabusiness.com/byline/ryan-mckinnon/) [[HTTPS://WWW.VIRGINIABUSINESS.COM/BYLINE/RYAN-MCKINNON/](https://www.virginiabusiness.com/byline/ryan-mckinnon/)]

One of the state's largest energy storage facilities is on track to open in Chesterfield County this year, as Dominion Energy Inc. works to achieve state-mandated clean energy goals.

The Dry Bridge Energy Storage project will feature row after row of installations that resemble shipping containers, each housing batteries that collectively have the capacity to store 20 megawatts of energy.

It's part of Dominion's effort to meet the state's requirement that the utility generate all its electricity for use in the commonwealth from clean energy sources by 2045.

The Virginia State Corporation Commission is reviewing Dominion's application for a certificate of public convenience and necessity, while the utility hopes to complete permitting requirements with Chesterfield County officials early this year, according to Dominion spokesman Jeremy L. Slayton.



Dominion Energy plans to build an energy storage facility in Chesterfield similar to the one in this rendering. Rendering courtesy East Point Energy

As the energy giant transitions away from fossil fuels and toward greater reliance on solar and offshore wind energy production, storing excess energy will be a necessity. "Storage is key because the wind isn't always blowing [and] the sun isn't always shining," Slayton says.

While Dry Bridge will be its biggest energy storage facility so far, the 20 megawatts will barely put a dent in the state-mandated 2,700 megawatts of storage Dominion must achieve by 2035. In addition to Dry Bridge, a planned Loudoun County facility will offer 50 megawatts of storage, and various smaller pilot projects will total 16 megawatts.

That leaves 2,614 megawatts of battery storage to go. Meeting that goal would require a massive increase in storage technology, leaving many to wonder if lawmakers set an unattainable goal.

During a September 2021 gubernatorial debate, Gov.-elect Glenn Youngkin said he wouldn't have signed the 2020 Virginia Clean Economy Act, adding that energy executives didn't think it was feasible.

Mike Doyle, a senior equity analyst at Edward Jones specializing in utilities, says utility-scale battery storage is relatively new technology. Advocates for expanding the state's capacity are banking on the batteries becoming more efficient during the next decade. And, he says, "that's typically what we see with technology, whether personal computers or things on the utility side."

Still, Doyle says, Dominion must balance expanding battery storage capacity with the cost passed on to customers.

"If the costs don't come down or technology doesn't improve as much and it starts impacting customers' rates more than it is comfortable for regulators in Virginia, you could see it slowed down," Doyle says.



Energy
Storage
Association

ESA Corporate Responsibility Initiative: Guidelines for End-of-Life and Recycling of Lithium Ion Battery Energy Storage Systems

August 27, 2020

This guide is a product of the [U.S. Energy Storage Association \(ESA\) Corporate Responsibility Initiative](#) (CRI). ESA organized and coordinated the CRI, which launched in March 2019. By April 2019, thirty six (36) industry leaders signed a pledge “to engage in a good-faith effort to optimize performance, minimize risk and serve as an exemplary corporate citizen in the manufacturing, deployment, implementation, and operation of energy storage projects across the United States” and to contribute experts to a CRI Task Force to establish best practices in several areas, including end-of-life and recycling. As of publication, fifty-seven (57) companies and organizations are signatories to the pledge.

The purpose of these Guidelines is to (1) address the end-of-life (EOL) management challenges that arise as the stationary energy storage system (ESS) industry grows; and (2) serve as a reference for manufacturers, integrators, developers, financiers, asset owners and others to inform product development, project planning, execution and policy related to EOL management. The document is not a standard; it is intended to support those involved in energy storage projects to ensure that planning and protocols account for the eventual decommissioning of energy storage systems. ESA also published a white paper in April 2020 [End-of-Life Management of Lithium-ion Energy Storage Systems](#) that described the current status of Lithium ion (Li-ion) battery EOL management, including regulatory requirements, reuse and recycling technology options, and initiatives to address concerns around the approaching end-of-life of ESS. A forthcoming CRI product will provide a decommissioning plan template for Li-ion battery energy storage systems.

Disclaimer

These Guidelines are provided for information and awareness purposes only and offer an approach to developing an end-of-life management strategy for energy storage systems consistent with environmentally responsible stewardship. ESA assumes no responsibility or liability for the use of this document. Developers and facility owners are advised to consult with legal, accounting and insurance advisors concerning liability, accounting, and other issues associated with end-of-life management of energy storage systems.

It is important to note that this document is “living” and will require regular updates as recycling and reuse experience is gained and technology design evolves.

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Acronyms & Abbreviations

| | |
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| CRI | Corporate Responsibility Initiative |
| DOT | U.S. Department of Transportation |
| EIA | Energy Information Administration |
| EOL | End-of-life |
| EPA | U.S. Environmental Protection Agency |
| EPRI | Electric Power Research Institute |
| ESA | The U.S. Energy Storage Association |
| ESS | Energy Storage System |
| LFP | Lithium iron phosphate |
| NMC | Nickel manganese cobalt |
| NYSERDA | New York State Energy Research and Development Authority |
| OEM | Original Equipment Manufacturer |
| RCRA | Resource Conservation and Recovery Act |
| RD&D | Research, development & demonstration |
| SOH | State of health |

1. Introduction and Summary

Technology advances, electrification of our economy and concerns about climate change are driving rapid decarbonization of the electricity and mobility industries. The electricity sector is integrating more and more renewable energy and the auto industry is moving towards electrical vehicles (EVs), with increasing demand to electrify medium- and heavy-duty fleet vehicles. To enable this transition and maintain reliability and resilience, deployments of stationary energy storage systems (ESS) are increasing rapidly. Industrial battery-based energy storage has become a well-established industry with exponential growth projected in the coming years.

The most prevalent energy storage technology in both EV and ESS applications – namely Lithium ion (Li-ion) batteries of various chemistries and types – are classified as hazardous waste upon reaching end-of-life (EOL). Managing advanced industrial batteries after their useful lives poses unique challenges for many stakeholders in the industry value chain. With deployments on a gigawatt-hour (GWh) scale of ESS battery systems planned, the industry must address an approach for managing the extensive fleet of advanced industrial batteries that are being deployed now and will need to be managed responsibly upon reaching end-of-life in future years.

Corporate responsibility encompasses environmental stewardship, particularly when a rapidly growing industry could generate EOL waste that poses environmental and safety risks. Such is the case with large-scale industrial Li-ion batteries. Given the currently limited opportunities for refurbishment and reuse for Li-ion ESS batteries, recycling represents the best practice for managing Li-ion ESS batteries at the end of their useful lives. Currently, only a handful of battery processors offer recycling in North America, but these options will likely expand as a response to the more immediate challenge of dealing with a surge of spent EV batteries reaching EOL earlier and in larger volumes than stationary batteries.

EOL management should be planned and executed from project inception through (and beyond) the project's lifespan to minimize the environmental and financial impacts. All entities throughout the value chain have a role in supporting environmental stewardship, fiscal responsibility and responsible recovery and reuse of valuable materials that the industry needs for continued growth.

The EOL decommissioning of an energy storage system represents a future cost that the asset owner should recognize as a financial liability. Even though experience is limited for stationary storage systems, available estimates suggest that decommissioning costs can be significant even though they might occur 10 to 20 years from the installation date—depending on the specific battery chemistry and its operational duty cycle.

Current and future ESS owners should develop decommissioning plans that recognize this uncertainty in costs and update plans as new recycling opportunities and options emerge. Competition and stewardship objectives can spur innovation in contractual arrangements to share risk and cost, as well as encourage new firms with novel approaches to enter the market for decommissioning services.

Supporting the development of economically efficient, competitively neutral policies that promote recycling of both EV and stationary Li-ion batteries and help expand the battery recycling market is consistent with corporate responsibility and environmental stewardship. Growing a robust recycling market will expand the available opportunities for all Li-ion battery users, improve environmental outcomes and lower the cost of managing EOL batteries.

2. Li-ion ESS Decommissioning and Recycling

Battery-based ESS facilities have a finite lifespan, although owners have some discretion regarding the timing of decommissioning based on factors such as safety or performance degradation. The decommissioning process involves dismantling the ESS and removing it from the site in compliance with applicable federal and local rules governing the safe transport and disposition of used equipment and waste. The ESA white paper on EOL management described the basic processes and considerations along with an assessment of the technology and market status of current EOL options, including refurbishment for second life and recycling.¹

We focus on recycling as currently the most relevant and responsible option because landfill disposal of large-format Li-ion batteries is neither safe nor legal, and because the prospects for refurbishing ESS batteries for second life applications are very limited at present.² Even though the Li-ion battery recycling industry is in its infancy with respect to capacity and scale, more efficient and sustainable recycling processes are under active development; therefore recycling ESS batteries currently qualifies as best practice for EOL management.

The EOL management of Li-ion battery ESS is inextricably linked to the burgeoning EV market and the experience with managing spent EV batteries around the world. So, while only a handful of battery processors currently offer recycling in North America, these options will likely expand as a response to the imminent surge of spent EV batteries. As stated in the ESA white paper:

While ESS and EV Li-ion batteries have different applications, they share many material inputs and thus have similar reuse and recycle opportunities. Some of the practices that evolve to reuse and recycle EV batteries will influence, and sometimes determine, the end-of-life requirements and management practices applicable to stationary ESS batteries.³

The future availability and cost of battery recycling options for stationary storage will depend on how the recycling sector evolves to meet the near-term challenge of spent EV batteries. Because the ESS industry will likely benefit from EV industry innovations, the ESS industry has a vested interest in the recycling efforts of the EV industry.

¹ See Energy Storage Association, [End-of-Life Management of Lithium-ion Energy Storage Systems](#), April 2020.

² Refurbishing EV batteries for second life in stationary storage is more commercially promising than refurbishing ESS batteries, in part because battery state of health (SOH) generally is higher for discarded EV batteries than for ESS batteries no longer performing useful services.

³ Energy Storage Association, [End-of-Life Management of Lithium-ion Energy Storage Systems](#), April 22, 2020, p. 5.

Decommissioning Process

As with any other asset within the power sector, the decommissioning process for ESS involves dismantling and removing equipment and waste from the site in compliance with applicable federal and local rules governing its safe transport and disposition. An extensive array of Federal environmental and safety regulations governs the breakdown, packaging, transportation and disposition of spent Li-ion batteries from ESS facilities. The Federal rules are outlined in [Appendix A](#), and the description of the decommissioning process below is derived from the [ESA white paper](#).

The actual scope of decommissioning depends on project-specific conditions, type of system, and the disposition pathway chosen. In some cases, the battery modules are removed, while the balance of the system (controls, enclosures, etc.) remain and are re-used with new battery modules. In other cases, the full systems are replaced as integrated packages. If the site itself is being entirely decommissioned (no future energy storage or similar infrastructure will occupy it), contractual agreements govern the final state of the site (e.g. resulting in remediated land, residual foundations, gravel, etc.).

Once a used battery is removed from service and diverted toward end-of-life management, it is designated as “Universal Waste,” a special category of hazardous waste under EPA regulations. These rules generally require recordkeeping, labeling, and storage methods that keep material out of the environment, and they outline approved recycling or disposal pathways. The balance of plant can represent a significant quantity of materials, including concrete pads, steel enclosures, cabling, and an array of electronics that are part of the entire energy storage system package. Concrete and steel are readily recyclable, and many enclosures can be reused—particularly if a site is being repowered with new batteries at the end of old equipment’s lifespan. Inverters, control systems, and other electronic equipment share many of the challenges of e-waste more broadly, but useful materials often can be recovered.

After dismantling and removal from the site, the old batteries are transported to facilities for refurbishment, recycling, or disposal. Transport of batteries, whether new or used, is governed by U.S. Department of Transportation (DOT) regulations that treat batteries as “Class 9” miscellaneous hazardous material and specify packaging and materials containment to mitigate the risk of accidental activation or reaction of the batteries during transport.

When batteries arrive at a processing plant for recycling, regulations apply for proper waste storage and handling. The recycling process begins with dismantling electrically discharged batteries. The current diversity of Li-ion battery types, sizes, and chemistries makes this process difficult to automate, so it is largely done manually. The steps consist of removing the battery casings, separating the connectors, disassembling modules from packs, separating cells from modules, and removing the electrolyte. In addition to manual separation, some recyclers employ ultrasound and/or mechanical agitation to remove cathode material. After shredding, or milling and pre-treatment, the cells undergo one of two types of currently available recycling processes: pyrometallurgical and hydrometallurgical. These processes recover different amounts and types of material from the batteries, which are sold in commodity markets, and the remaining non-hazardous materials are disposed in landfills qualified to accept the waste stream. It should be noted that while reintroduction of recovered materials back into markets can yield environmental

benefits from the reduced use of virgin materials, this must be compared to the energy use and emissions from the recycling processes themselves, which can offset those benefits.

The steps in the recycling process – dismantling, packaging, transporting and processing – are governed by multiple, overlapping environmental and safety regulations that require specialized expertise and involve considerable labor at either the ESS site, the recycling facility, or both. Accordingly, the costs of decommissioning Li-ion ESS can be substantial today.

Current Estimates of Decommissioning and Recycling Cost

Not many ESS facilities have been decommissioned, so detailed cost figures based on actual experience are not readily available. There are several informal estimates, and the Electric Power Research Institute (EPRI) issued a study reporting formal, bottom-up ESS decommissioning cost estimates for several Li-ion chemistries in December 2017.⁴ An update of that report is expected in the Fall of 2020.

Across the various assumptions, methodologies and base year dollars, the bulk of the estimates fall into the \$25 – \$75 per kWh range for the current costs of recycling the ESS battery modules. Cost variances are caused by (in rough order of importance):

- *Specific battery chemistries, e.g., Nickel Manganese Cobalt (NMC) or Lithium Iron Phosphate (LFP), which have different properties (e.g., density) that affect the costs of dismantlement and transportation; costs of different processes used; and the market value of specific recovered metals.*
- *The recycling approach used, which can range from milling or shredding modules with minimal disassembly and recovering 65-70 percent of the material, to dismantlement and segregation of material (e.g., plastics or metals) for different processes that can recover nearly 80 percent of the material. The latter approach can cost as much as 50 percent more than the direct milling approach, although the sales revenue from the enhanced material recovered under the second approach can offset some of the additional costs.*
- *The amount of onsite vs. offsite labor employed in disassembling the ESS, which can vary by system design. Some systems require extensive disassembly *in situ*, using more expensive non-local labor, while other systems can be transported nearly intact to processing facilities where permanent local-based labor rates are lower.*
- *The distance between the ESS site and the processing facility, which will impact transportation costs.*

The balance of plant decommissioning costs could add roughly another \$10/kWh to \$15/kWh, although such costs are avoided entirely under a recommissioning scenario which involves swapping out old batteries and controls for new equipment but otherwise reusing the site for an ESS facility. Assuming a total ESS decommissioning and restoration of the site, most

⁴ See Renewance, Inc., “Commercial Liability Considerations for End-of-Life Industrial Batteries”; Carl Smith, “Market Trends and Considerations for End of Life and Recycling of Lithium Ion Batteries”; Energy Storage Association Webinar: End-of-Life and Recycling: Advanced Energy Storage Systems, January 29, 2020; and *Recycling and Disposal of Battery-Based Grid Energy Storage Systems: A Preliminary Investigation*, Electric Power Research Institute, December 2017.

decommissioning projects would cost between \$35/kWh and \$90/kWh. For a given battery type, chemistry and design, these unit costs—particularly those related to battery removal, disassembly, transportation and processing—should be roughly constant over a range of ESS sizes because of the nearly linear relationship between battery capacity and the volume and weight of battery cells/modules.

One way to put these costs into perspective is to compare the decommissioning cost estimates to the current capital cost of new ESS. Of course, ESS costs vary widely as well, but two recent estimates for large 4-hour systems provide fairly consistent benchmarks. BNEF calculates the capital cost of a 4-hour (20 MW/80MWh) system in 2019 at \$331/kWh. Sargent & Lundy for the Energy Information Administration (EIA) estimates a 4-hour system (50MW/200 MWh) at \$347/kWh, also in 2019 dollars.⁵ Assuming a \$350/kWh installation cost, and a range for decommissioning costs of between \$35/kWh - \$90/kWh, the installation of an ESS today implies a liability measured at about 10 to 26 percent of its current value, although such costs would be incurred perhaps 15-20 years in the future and thus require appropriate discounting to make valid economic or accounting comparisons.

It is also worth noting that the relationship between installation and decommissioning costs for batteries differ by chemistries; in some cases, the relationship is not proportional and may even be inverse. For example, NMC batteries with high cobalt content generally have a higher \$/kWh initial installation cost than LFP batteries, but also typically have lower \$/kWh net recycling costs because of the lower battery weight (higher energy density) and higher market value of recovered cathode material.

Decommissioning Cost Accounting

In accounting terms, future decommissioning cost responsibility represents a liability on the asset owner's balance sheet, sometimes called an "asset retirement obligation." Because an ESS inevitably is removed from service after reaching the end of its useful life, the future costs of proper disposal typically are recognized when the asset enters service.

Common accounting conventions used to calculate future liabilities assume that the underlying technology of decommissioning remains the same through time, which means that nominal costs would escalate at a general inflation rate. But since the decommissioning cost will be incurred years into the future, that escalated future cost then would be discounted back to the current year to determine the present value of the obligation. The discount rate typically used reflects the cost of borrowing for each corporation, and thus the discount rate is higher than the expected inflation rate.

As an illustration, consider an ESS that cost \$350/kWh to build, \$50/kWh to decommission (in today's dollars), and was expected to last 15 years. Assuming inflation at 2 percent per year, the cost of decommissioning this facility 15 years from today (escalated by 2 percent inflation)

⁵ See *2020 Sustainable Energy in America Factbook*, BloombergNEF in collaboration with the Business Council for Sustainable Energy, page 105 and *Capital Cost and Performance Characteristic Estimates for Utility Scale Electric Power Generating Technologies* Energy Information Administration (EIA) February 2020, page 18-1 to 18-5.

would be \$67/kWh. Assuming the owner applies a discount rate of 5 percent per year to future costs, the present value of the asset retirement obligation would be \$32/kWh when the ESS was commissioned, or about 9 percent of the current cost of building the facility.⁶ This would also represent the dollar amount the asset owner would set aside today to have just enough to cover the future cost of decommissioning, assuming the accumulated balance could earn 5 percent per year over 15 years.

Even appropriately discounted, decommissioning expense remains a material cost under the illustrative estimate presented above. The entire industry has a stake in reducing these costs while maintaining a high standard of environmental integrity. The composition of decommissioning costs suggests that cost savings are possible: much of these costs arise because most current batteries require significant manual labor to dismantle, package and transport safely, while other costs arise because of high fees paid to process batteries that are unprofitable to recycle with current recycling techniques and commodity prices. With sufficient incentive and focus, the ESS industry can work together toward reducing those costs.

3. Existing Facility EOL Planning Guidelines

The costs and risks inherent in decommissioning existing plants present additional challenges to owners and operators because the choices of location, technology, and contractual arrangements to manage costs have already been made. Under the Resource Conservation and Recovery Act (RCRA) regulations promulgated and enforced by the U.S. Environmental Protection Agency (EPA), the owner of the facility is the responsible party for properly managing waste upon retirement, because the owner's decision to retire and decommission the facility "generates" the resultant waste. Owners may contract and offset their risk with engineering, procurement and construction (EPC) companies, battery manufacturers or other third parties for decommissioning services, including the management of waste material such as batteries destined for recycling, but ultimately the owner is liable for proper waste management.

The owner of an existing facility can manage the cost of decommissioning in some important ways:

- Revise decommissioning cost estimates to reflect new information, and when appropriate, update accounting entries;
- Develop a preliminary decommissioning plan (or update an existing plan); and
- Institute a process to explore and identify new options that might reduce the cost of decommissioning.

Information on decommissioning costs and expected remaining lifetime will certainly evolve, but the owner can and should develop current estimates for its facility and be ready to refine those estimates in light of new information on costs.

⁶ It is worth noting that ratios of estimated decommissioning cost to initial cost have increased significantly in the past few years due to the rapid decline in ESS capital costs along with relatively stable, or only slowly declining, estimated decommissioning costs.

Decommissioning plans can also evolve over time to become more specific and actionable by taking advantage of emerging opportunities in the market. For example, a new battery processing facility capable of handling a specific ESS battery might open at a location closer than originally thought, reducing estimated transportation and processing costs. New companies might enter the market to consult or manage the decommissioning process. As the end of a facility life nears, more of the decommissioning plan can be finalized, including executing contracts to perform the needed decommissioning tasks. Thus, new options that arise in the market for decommissioning services can lead to both downward revision of estimated costs as well as opportunities to manage costs prior to expected retirement of the facility.

4. EOL Considerations for ESS Under Development

The opportunities to minimize the eventual costs of decommissioning an ESS while the facility is under development are much broader - both at the facility level as well as industry-wide. Some of these opportunities arise because the project development and installation process involves multiple parties that could share the risks and costs of eventual decommissioning. These parties might include (in roughly supply chain order):

- *Original Equipment Manufacturers (OEM)* who produce the battery cells and modules for installation in ESS
- *Integrators* who combine batteries with other electrical and control systems
- *Developers* who arrange for financing and orchestrate the overall project completion
- *Engineering, procurement & construction (EPC) contractors* who build the facility
- *Operations & maintenance (O&M) providers* who keeps the ESS operating
- *Off-takers or utilities* who own or purchase services provided by the ESS

More than one of the functions described above may be performed by a single party; for example, a developer may own and operate ESS facilities and build systems for other owners. Some developers also serve as EPC contractors, and EPC contractors often provide ongoing O&M services.

Considerations affecting EOL decommissioning costs and environmental impacts reside throughout the supply chain. While the transactions from the manufacturer of individual battery cells through the commissioning and operation of an ESS system will largely determine the cost and environmental profile of EOL decommissioning, downstream entities such as developers can influence upstream decisions with their planning, procurement and project development process. Insofar as developers and owners especially can be responsible for multiple functions across the supply chain, they are in an advantageous position to optimize the upstream and downstream considerations for EOL.

Design for Recycling

Developers and project owners alike should assess the cost and environmental implications of ESS decommissioning projects early in the planning and procurement phase. Since dismantlement of ESS facilities is a significant cost component, designs that reduce

disassembly time and cost could emerge as a competitive advantage for OEM battery manufacturers. For example, some recycling processes require the separation of individual battery cells from modules/packs, which can be labor intensive and costly. Reducing the labor required to “reverse manufacture” batteries will lower dismantlement costs. In addition to evaluating a battery manufacturer’s product for initial cost and in-service performance, developers can also scrutinize how readily the modules can be disassembled upon retirement as may be necessary for processing or recycling. Likewise, packaging for legal transport of battery waste can be labor intensive, while battery cells and modules could have standard designs that would allow reusable containers and thus further reduce costs.

The recycling cost of different Li-ion battery chemistries can easily vary by a factor of two or more, which will have a significant impact on overall decommissioning costs.⁷ Battery designs with longer expected service life directly increase the returns from the project, but also enhance asset value by deferring decommissioning costs and reducing the environmental impact of the broader ESS manufacturing industry. Integrators and EPC contractors can design large ESS projects to allow equipment access for easier field dismantlement or even moving entire containers offsite. When system integrators, EPC contractors and developers work together to incorporate the likely costs of decommissioning into financial evaluations, the EOL costs will become a competitive factor in selecting firms to supply the project.⁸

Cost is not the only metric to consider, however. A company’s environmental stewardship objectives, community relations, and reputation will factor into these decisions. A commitment to recycling or other sustainable disposition of spent batteries will sometimes cost more than would minimal compliance with applicable disposal rules and regulations. However, responsible ESS owners should be willing to pay a modest premium for environmentally preferable options such as recycling—especially considering the rapid decline in installed costs of the past five years and projected out across the decade.

Another example of downstream entities influencing supply chain decisions and outcomes is the emerging occurrence in which buyers of ESS services (e.g. utilities and other off-takers) require a demonstrated commitment to EOL recycling/reuse as a qualification in their Requests for Proposals and other procurements. Some purchasers are beginning to require transparency of developers’ energy storage decommissioning plans in bids and state-funded programs. For example, Portland General Electric is now requiring explicit decommissioning responsibilities in its requests for proposals. The New York State Energy Research and Development Authority (NYSERDA) Energy Storage Guidebook specifies that applicants for new energy storage projects have a decommissioning plan and a decommissioning fund.⁹ NYSERDA requires a

⁷ For example, EPRI calculated a recycling cost of \$18/kWh for Nickel Manganese Cobalt Oxide (NMC) batteries from one manufacturer and \$82.50/kWh for Lithium Iron Phosphate (LFP) from another manufacturer. See *Recycling and Disposal of Battery-Based Grid Energy Storage Systems: A Preliminary Investigation*, Electric Power Research Institute, December 2017, Table 3-3, page 3-4.

⁸ These evaluations may involve tradeoffs between initial capital cost and EOL cost. For example, an NMC battery with high cobalt content would have a higher initial cost than an alternative chemistry such as LFP, but the LFP battery may cost more to recycle due to less value in the recovered material. While the initial cost reduction would outweigh the present value of EOL cost increase in most cases, these tradeoffs should be explicitly analyzed.

⁹ NYSERDA. *New York Battery Energy Storage System Guidebook for Local Governments*. March 2019.

narrative description of the decommissioning process, the estimated life of the energy storage system, details about the estimated cost of decommissioning and plans for ensuring its funding, and contingency plans for removal of damaged batteries.

Allocating Contractual Responsibility for End-of-Life

As discussed before, the ESS owner is the legally liable party for complying with hazardous waste rules for battery disposal upon the end-of-life. Most ESS project development and operation contracts to date have remained silent on the responsibility of managing end-of-life and decommissioning, and thus by default align cost responsibility with legal liability. However, responsibility and cost can be assigned to other parties during the project development phase. It is becoming more common for contract language to specify where ESS decommissioning responsibilities lie, for example, with the O&M provider or EPC contractor.

Other arrangements are possible among parties involved in ESS development as well as outside third-party decommissioning service providers. In cases where the project developer and the system integrator jointly design, implement and deploy the system, the contract between the developer and the system integrator could address EOL management. This could take many forms; for example, the developer could assume the obligations (and even retain the obligation in the event of a subsequent sale of the ESS) or the developer could opt to contract with the system integrator for EOL management. The specific terms and division of responsibility must be negotiated and agreed, and EOL management could be included under the existing capex or O&M contracts, or a separate contract altogether.

The intent and effect of such arrangements would be to allocate EOL cost and performance risks to parties who may be in a better position to manage that risk, and by separating the obligation from the owner, enhance the value of the asset. This reallocation of risk and responsibility can be efficient, for example, when other parties in the supply chain can accumulate more ESS decommissioning experience than owners who may only have one or several such installations and thus lack the requisite expertise. In these cases, OEM battery manufacturers, system integrators, specialized EPC firms or ESS developers may have significant cost advantages in managing EOL. For instance, an OEM battery manufacturer could agree to take back batteries for recycling at the end-of-life, an arrangement that could be reflected in the initial battery cost or be paid under an O&M contract. Many arrangements are possible, whereby an ESS owner who compensates a counterparty to manage EOL would save money at the end-of-life, while the counterparty assuming those obligations would be compensated for the cost and risk.

Defining and explicitly allocating responsibility up-front during a project's development phase can manage an important ownership risk factor, and such contracts would also reflect a company's position on environmental stewardship, financial risk and reputation.¹⁰ In the present state of the industry, current industrial battery recycling costs are driven by limited process technologies, the amount of material recovered and the relevant commodity prices, all of which are highly speculative over the next 10 to 15 years and would make a fixed price guarantee on

¹⁰ Such contracts can convey with ESS ownership changes, with new owners assuming the terms and conditions.

EOL management for recycling difficult to secure today. But it is entirely possible for parties to design contracts reflecting potential changes under flexible pricing formulas.

When obligations and risks are allocated to the parties who are best able to efficiently manage them, the overall project risk declines. As such arrangements become the norm, EOL risks will become more transparent and certain, further increasing the bankability of ESS projects. For example, an ESS project with a relatively certain present value decommissioning cost of about 10 percent of the initial value would be more financially attractive than one with uncertain liability ranging anywhere from 5 to 15 percent of the initial cost. If a contract that features decommissioning price certainty also includes enforceable terms to recycle batteries, then a growing number of financiers who are building environmentally sustainable portfolios would find the transaction more attractive as well.

5. Industry Action to Promote and Improve Recycling

It is in the best interest of the energy storage industry to join those individual companies that commit to sustainable practices, in support of programs and policies that will enable the market for battery recycling to grow. Supporting the development of economically efficient, competitively neutral policies that promote reuse and recycling of EV and ESS Li-ion batteries is consistent with corporate responsibility, environmental stewardship and profitable long-term business practices. While this may impose some short-run costs on the industry, it will set best practices to encourage all players to manage EOL matters in a sustainable way and on a level playing field. Over the long run, stronger recycling policy will encourage new design, installation, operating and decommissioning practices in the ESS industry and stimulate the development of innovative recycling approaches, technologies and companies to meet market needs. This would expand the available opportunities for all Li-ion battery users, improve the environmental outcomes, and ultimately lower the cost of managing end-of-life batteries.

An evolving federal, state and local regulatory framework governs the end-of-life disposition of large industrial Li-ion batteries. In addition to regulatory compliance, some companies and industries have embraced paradigms such as product stewardship and extended producer responsibility, which encourage entities throughout the supply chain to assume responsibility for sustainable practices for products at the end-of-life. These concepts frequently underlie industry-wide approaches and initiatives to promote sustainable waste management and are explained in the [Appendix B](#).

The Li-ion battery recycling market currently is focused on the rapidly growing number of EV batteries reaching end-of-life now and in the immediate future. It is in the best interest of the ESS industry to support EV battery recycling since it will expand the opportunities for ESS Li-ion battery recycling and reduce costs over time. Likewise, the ESS industry might benefit by supporting second-use refurbishment of EV batteries for some stationary service applications. Such batteries could serve niche markets such as remote location backup power.

It is also in the best interest of the ESS industry to support and encourage investment in research, development, and demonstration (RD&D) for improved battery recycling methods. Innovation that reduces EOL cost and improves environmental outcomes—for example,

recycling processes that do not require battery disassembly and use less energy—would help reduce the environmental footprint of the Li-ion battery industry and help spur the development of a North American “reverse supply chain” to close the loop between battery EOL and manufacturing.

6. Conclusion

The cost and environmental implications of ESS end of life decommissioning are considerable, and largely beyond the influence of any single company that owns and operates an ESS facility. However, especially considering the growth of the EV battery recycling market, these costs and environmental outcomes will evolve, and these changes will arise from individual companies adopting best practices, industry-wide initiatives to support sustainable market expansion, and changes to policies and regulations at the federal, state and local levels. Improvements in costs and environmental outcomes can arise from:

- Programs and policies to encourage recycling of Li-ion batteries
- RD&D funding directed at new recycling technology
- Increasing knowledge of EOL costs
- Early consideration of EOL costs in ESS project development
- Market-driven competition focused on environmentally sustainable EOL cost reductions

The U.S. Energy Storage Association continues to lead the U.S. storage industry and engage with key stakeholders to foster innovation and advanced practice guidelines in emergency preparedness, safety, supply chain, end-of-life and recycling issues. To learn more about how ESA is working proactively on these issues, and to join our efforts, visit [ESA Corporate Responsibility Initiative](#) to obtain previously-published resources and information on forthcoming products.

References

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Appendix A: Federal Regulation of Li-ion Waste Batteries

A number of regulatory requirements affect the transportation, handling, storage and disposal of batteries throughout their lifecycle. At the beginning of life, and throughout the lifecycle, most batteries used in energy storage applications are considered hazardous material and regulated by the US Department of Transportation Hazardous Material Regulation (HMR) under Title 49 of the Code of Federal Regulations, Subchapter C. While many are aware that the HMR regulates the packaging, marking, labeling and transporting of hazardous materials, it also contains requirements for training, safety, security and recordkeeping that apply to anyone who handles hazardous material.

When a battery reaches the end of its useful life and is destined for disposal, it is considered waste and additional regulations apply. The US Resource Conservation and Recovery Act (RCRA) regulates the generation, transportation, treatment, storage and disposal of hazardous solid wastes under Title 40 of the Code of Federal Regulations, parts 262 through 273. Because of the regulatory burden associated with managing hazardous wastes, the US EPA created Universal Waste regulations to ease the burden and promote the collection and recycling of commonly generated wastes, including batteries. Intact batteries that classify as hazardous waste may be managed as Universal Waste, while batteries that are not intact, such as a battery that has been damaged to the point of leaking electrolyte, must be managed as a fully regulated hazardous waste.

The Federal RCRA guidelines represent the minimum requirements for state regulation but states may invoke more stringent requirements at their discretion. In California, federal RCRA requirements have been implemented through the California Code of Regulations (CCR), Title 22, Division 4.5. To a large degree, they follow the Federal regulations, except that California has further prohibited landfilling of batteries. New York has implemented Federal regulations in Title 6 to the New York Code of Rules and Regulations, which also closely follows Federal regulations for management of Universal Waste.

Under RCRA, the waste generator is obligated to determine whether its waste is a hazardous waste and regulated under RCRA. The waste generator is defined by RCRA as “any person, by site, whose act or process produces hazardous waste identified.” This would typically be the owner/operator of the battery energy storage system as the operation and use of the battery led to the need for disposal. A hazardous waste may be specifically listed by the EPA or exhibit characteristics of ignitability, corrosivity, reactivity, or toxicity under prescribed testing conditions. Lithium ion batteries, one of the most common technologies used in battery energy storage applications, are not listed specifically as a hazardous waste, but many possess characteristics that trigger RCRA regulations.

Beyond waste classification, RCRA imposes several additional requirements with respect handling, storage, transportation and disposal. The requirements vary depending on the volume of waste that is being generated, so it is important for waste generators to understand the volume thresholds and associated obligations. These obligations may include:

- Understanding the **on-site accumulation limits** which define the amount of hazardous waste/universal waste a generator is allowed to “accumulate” on site without a permit.

- Obtaining an **EPA Identification Number**, which is a unique number that identifies the generator by site. The EPA ID number must be obtained prior to exceeding the on-site accumulation limits.
- Monitoring and complying with **accumulation time limits** which define the amount of time hazardous/universal waste is allowed to accumulate on site.
- Ensuring appropriate personnel complete classroom or on-the-job **training** to become familiar with proper hazardous/universal waste management and emergency procedures for the wastes handled at the facility.
- **Maintaining records** demonstrating compliance with the regulations, including tracking off-site waste shipments. Records must be retained for a defined period of time (typically 3-years).

Liability

Hazardous material and hazardous waste regulations govern the management of batteries through their lifecycle. Understanding those obligations is important since failure to comply has consequences, and some of those consequences including reputational damage, financial penalties and even imprisonment for the most severe violations.

Violations of the HMR can carry both civil and criminal penalties. A civil penalty involves fines of up to \$79,976 for each violation, or up to \$186,610 if the violation results in death, serious illness, or severe injury to any person or substantial destruction of property. A person who knowingly, willfully or recklessly violates a requirement of the HMR can be imprisoned up to 5 years. If the violation involves the release of a hazardous material which results in death or bodily injury to any person, the maximum penalty increases to up to 10 years in prison.

Failure to comply with RCRA regulations can also result in civil or criminal penalties. Civil penalties for those who violate the regulations carry a fine of up to \$74,553 per day, per violation. A person who knowingly violates RCRA hazardous waste regulations is subject to a penalty of up to 5 years in prison. Penalties double for subsequent violations. If a person committed such a violation while knowing that such an act put another person in imminent danger of death or serious bodily injury, the penalty increases to 15 years and/or up to \$250,000 for an individual or \$1,000,000 for an organization.

While not all violations will carry the maximum penalties, enforcement actions are openly communicated by the responsible US agencies and the resulting damage to a company's reputation resulting from a violation can be significant but difficult to quantify in monetary terms.

Transport

Lithium batteries are regulated as a hazardous material under the U.S. Department of Transportation's (DOT's) Hazardous Materials Regulations (HMR; 49 C.F.R., Parts 171-180). The HMR apply to any material DOT determines could pose an unreasonable risk to health, safety, and property when transported in commerce. Lithium batteries must conform to all

applicable HMR requirements when offered for transportation or transported by air, highway, rail, or water.

A number of regulations apply to the transport of end-of-life lithium batteries depending on the rated energy capacity, weight, construction, quantity, condition and intended use. Batteries used in ESS systems will need to consider the following:

Classification

If a battery is being shipped for reuse, must be subject to a series of design tests per sub-section 38.3 of the UN Manual of Tests and Criteria. Downstream shippers and consumers, however, often cannot confirm if their battery was successfully tested. To address this issue, some lithium battery and device manufacturers provide product information sheets with this information, however, this is not a wide-spread practice. The UN Model Regulations now have a requirement for lithium battery manufacturers and distributors to make available lithium battery test summaries (TS) using a standardized set of elements. Lithium Ion batteries shipped for recycling are excepted from this requirement.

Design/Construction

Lithium cell or battery must incorporate a safety features that prevent violent rupture, short circuits and prevent dangerous reverse currently flow. Batteries that have a strong, impact-resistant outer casing may be excepted from UN performance packaging requirements noted below. Batteries or battery assemblies must be secured to prevent inadvertent movement, and the terminals may not support the weight of other superimposed elements. Batteries or battery assemblies packaged in accordance with this paragraph are not permitted for transportation by passenger-carrying aircraft, and may be transported by cargo aircraft only if approved by the Associate Administrator.

Packaging

A fundamental requirement of any shipment is that lithium ion batteries must be packaged in a manner to prevent, short circuits, movement within the outer package; and accidental activation of the equipment. Unless otherwise excepted batteries must be placed in an inner packaging (such as a plastic bag), that surrounds the battery and prevents contact with other devices or conductive materials. The batteries must them be packed in an outer packaging, constructed of selected materials, that meet specific UN performance packaging requirements. A number of off-the-shelf packaging solutions exist that meet UN performance packaging requirements, though it can be difficult to find an optimal solution depending on the form factor of the battery to be shipped. In those cases, custom packages can be constructed and certified to UN specification requirements.

Containerized shipments

Shipment of containerized systems is growing in popularity as it offers the potential of system level acceptance testing prior to shipment and streamline installation of the system at site. The UN Model Regulations has adopted shipment of containerized systems, officially referred to as Cargo Transport Units, and has assigned UN 3536. However, the US DOT has not adopted the new regulations for shipment of Cargo Transport Units. US DOT will allow the transport of UN 3536 shipments within the US if it the continuation of an international shipment under an IMDG

bill of lading. Domestic shipments wholly within the US is only allowed with prior approval by the US DOT.

Damaged, Defective or Recalled Lithium Ion Batteries

Lithium cells or batteries, that have been damaged or identified by the manufacturer as being defective for safety reasons, that have the potential of producing a dangerous evolution of heat, fire, or short circuit (e.g. those being returned to the manufacturer for safety reasons) may be transported by highway, rail or vessel only, but must be packaged a certain way to meet safety regulations as specified at 49 CFR 173.185(f):

- Each cell and battery must be placed in individual, non-metallic inner packaging that completely enclose the cell/battery;
- The inner packaging must be surrounded by non-combustible, non-conductive, and absorbent cushioning material; and
- Each inner packaging must be individually placed in UN specification packaging meeting Packing Group I performance level (i.e., rated "X").

The boxes or drums containing damaged lithium cells/batteries must be marked and labeled as any fully regulated lithium battery package. This includes:

- The Proper Shipping Name,
- The UN identification number,
- The shipper's OR consignee's name and address, and
- The Lithium Battery Class 9 label

In addition to the standard required markings and labels, the outer package must be marked with an indication that the package contains a "damaged/defective lithium ion/ metal battery or cell," as appropriate.

Many off-the-shelf packaging solutions meeting the requirements above exist for shipping DDR consumer batteries. However, it can be far more challenging to find a solution for large format industrial. Some engineered solutions exist that permit reuse, but these can cost several hundred dollars, which is impractical for shipping larger quantities of DDR industrial batteries.

As mentioned, the US EPA permits large format lithium ion batteries to be managed as Universal Waste, providing for a streamlined set of regulations. However, batteries that show evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions must be placed in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The person handling the batteries must determine whether the leaking materials exhibit a characteristic of hazardous waste and, if so, manage the damaged batteries as fully regulated hazardous waste.

Stranded Energy

Lithium ion batteries transported by ground (motor vehicle or rail) are not subject to a state of charge limitation. Lithium ion batteries shipped by aircraft or vessel must be discharged below 30% state of charge.

Training

The Hazardous Materials Regulations, 49 CFR 172.704, require each employer with employees who handle hazardous materials or hazardous waste must train and test those employees, certify their training, and develop and retain records of current training. Hazardous materials training must include general awareness/familiarization, function-specific, safety, security awareness, driver training (for each hazmat employee who will operate a motor vehicle). The training must be administered within 90 days of employment or change in job function. Recurrent training is required at least once every three years. Per 40 CFR 273.36, a large quantity handler of universal waste must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.

Appendix B: Approaches to Achieve a Circular Economy

The U.S. Energy Storage Association recently released a [white paper report](#) that described the current status of Li-ion battery end-of-life management, including regulatory requirements, reuse and recycling technology options, the current economics of alternative EOL pathways and initiatives to address the challenges that arise in battery ESS EOL management.¹¹ The paper described reuse, recycling, and disposal options for ESS using the “circular economy” framework that underlies and motivates efforts to address EOL issues. In a circular economy, goods that reach the end of their useful lives are then reused and/or recycled as inputs again into the production process. The reintroduction of what was once considered disposable waste back into production can minimize material and energy used to provide economic goods and services, as well as reduce the volume of waste and environmental impacts from disposal. When implementation of circular economy principles results in reductions in overall energy and material use, they also contribute to greenhouse gas (GHG) reductions.

While the circular economy framework provides a sensible way to track potential material or energy flows and estimate the costs and benefits of various pathways and options, it does not imply any particular approach or policy design to realize reuse or recycling objectives. A circular economy requires the product slated for disposal to undergo both transportation (to an appropriate facility) and transformation (via a recycling or refurbishing process) before being reintroduced upstream in the supply chain. In some industries such as scrap metals, markets themselves support recycling because the value of scrap metal is high enough to provide payments for deliveries of waste and smelters and mills will pay for scrap as valuable feedstock for metal production.¹² However, most examples of reuse and/or recycling of final goods require some intervention in the market. The mechanisms employed to achieve these outcomes range from encouragements and incentives to prohibitions and mandates.

Many of the familiar programs at the consumer level have been promoted with “reduce, reuse, recycle” messages of individual responsibility. Voluntary collection of bottles, cans and paper are common, although such waste typically can be legally discarded in municipal waste streams. In other cases, prohibitions on disposal coupled with encouragement, incentives or requirements for locations to receive waste (such as gas stations that accept used motor oil for recycling from do-it-yourself oil changes, or hardware stores that accept spent batteries from portable power tools) help consumers “do the right thing” even when detection and strict enforcement of disposal prohibitions are nearly impossible. In some cases, mandatory policies are imposed and enforced. For example, 98% of vehicle lead-acid batteries are recycled under a disposal ban reinforced by a deposit refund program.

One approach to realizing circular economy objectives is known broadly as product stewardship. In the “linear economy” of production, consumption and waste disposal, the

¹¹ Energy Storage Association, “End-of-Life Management of Lithium-ion Energy Storage Systems,” April 22, 2020.

¹² There are many examples where by-products from an industrial process that might otherwise be considered waste are used as inputs to other industrial production processes, but these transactions do not involve a finished good used by the ultimate consumer and then otherwise discarded, which is the focus of the circular economy.

responsibility for use and/or disposition follows each transaction through the supply chain. For example, natural gas producers will sell gas to chemical manufacturers, who chose to create plastic feedstocks, which manufacturers decide to mold into consumer products, which consumers purchase, use as they wish and dispose in municipal waste streams. Local governments provide waste removal and disposal services, which are supported by taxes and user fees, thus the financial obligations are socialized to local businesses and residents. At no point along this chain of transactions do the sellers retain any interest, obligation or liability to promote the reuse or recycling of the product, with the final consumer ultimately deciding on the end-of-life disposition (and ultimately paying for services through taxes or private haulers).

The concept of product stewardship is based on the premise that upstream manufacturers can play a positive role in environmental sustainability. The Product Stewardship Institute (PSI), which supports and designs policies that promote reuse and recycling, gives this definition:

Product stewardship is the act of minimizing the health, safety, environmental, and social impacts of a product and its packaging throughout all lifecycle stages, while also maximizing economic benefits. The manufacturer, or producer, of the product has the greatest ability to minimize adverse impacts, but other stakeholders, such as suppliers, retailers, and consumers, also play a role. Stewardship can be either voluntary or required by law.

Some product stewardship advocates employ a moral framework to promote this concept, arguing that producers reap profits from sales, which creates an obligation to minimize adverse impacts from the product's use and disposal. Other advocates simply note that producers may incur lower costs than consumers or governments when managing EOL (for example, when recycling their own products) and therefore represent an efficient pathway to attain circular economy outcomes. Regardless of the premise or motivation, product stewardship highlights the beneficial role that entities upstream in the supply chain can play in sustainability.

One strong version of product stewardship involves placing obligations on producers for post-consumer involvement with the product after its useful life, as well as increased consideration of more environmental impacts of design, including the ease and/or cost of reuse or recycling. This mandatory approach, called "extended producer responsibility" places some liability on EOL disposition on upstream suppliers, including in the design of products. The PSI definition states:

Extended producer responsibility is a mandatory type of product stewardship that includes, at a minimum, the requirement that the manufacturer's responsibility for its product extends to post-consumer management of that product and its packaging. There are two related features of EPR policy: (1) shifting financial and management responsibility, with government oversight, upstream to the manufacturer and away from the public sector; and (2) providing incentives to manufacturers to incorporate environmental considerations into the design of their products and packaging.

These concepts define a range of options for various entities in the supply chain to act with sustainability in mind, either through voluntary commitments or responding to policy-driven incentives or mandates. Product stewardship provides a framework in which to consider industry approaches to sustainable management of energy storage systems as they reach the end-of-life.

March 14th, 2022

Planning Commission
Prince George County
6602 Courts Drive
Prince George, VA 23875

RE: ORDINANCE TO AMEND "THE CODE OF THE COUNTY OF PRINCE GEORGE, VIRGINIA," 2005, AS AMENDED, BY ADDING §___ BATTERY ENERGY STORAGE SYSTEM LAW - Ecoplexus Official Comments

About Ecoplexus

Ecoplexus Inc. was founded in 2007 and is a leader in the development, design, engineering, construction, financing, operations, and ownership of renewable energy systems for the commercial, government, and utility markets. The company provides a full suite of professional services for all stages from development to ownership. Ecoplexus develops and operates renewable energy facilities in the US, Mexico, Thailand, and Japan. In the US, Ecoplexus has been focused predominantly in the Southeast and West with development growing into the Mid-Atlantic, Central, and Northeast. Ecoplexus has US offices in Durham, NC and San Francisco, CA.

About BESS in VA

Standalone Battery Energy Storage is an important and rapidly growing development across the United States. It is valued for reliability, rapid response, and offsetting of fossil fuel use. It will also grow increasingly important as the grid moves towards renewable energy. Virginia is a frontrunner in BESS development with the State requiring 3.1 gigawatts of energy storage to be installed by 2035. Ecoplexus is working to provide the infrastructure for Dominion to meet that goal.

Ecoplexus Comments

Ecoplexus appreciates the opportunity to review and comment on Prince George County's proposed Battery Energy Storage System Ordinance. With increased adoption of battery energy storage systems (BESS) throughout the nation, ordinance changes to include BESS are becoming very common. We recognize the importance for municipalities to stay ahead of new development in the community and we applaud the county's efforts in its support of renewable energy facilities and recognition of battery storage as one of the fastest growing solutions to our energy needs. Ecoplexus supports the proposed ordinance, and is grateful to be able to participate in the public comment process. Our comments herein are being provided in a good faith effort to be a good neighbor and member of the community.



§7(l) - Special Exception/Use Permit Standards

Required setbacks for Tier 2 BESS

Subsection 7(l)(1) Setbacks currently states that, "Tier 2 Battery Energy Storage Systems shall comply with the setback requirements of the underlying zoning district for principal structures or 100 feet, whichever is greatest."

We recommend deletion of the "100 feet, and whichever is greatest" clause and suggest the County revise the language as follows:

"Tier 2 Battery Energy Storage Systems shall comply with the setback requirements of the underlying zoning district for principal structures."

Based on Ecoplexus's experience and the current *National Fire Protection Association (NFPA) 855 Standard for the Installation of Stationary Energy Storage Systems (2020)* setback requirements for energy storage facilities, we find the 100-foot setback requirement is very restrictive to development, and will severely limit BESS development in the county for the following reasons:

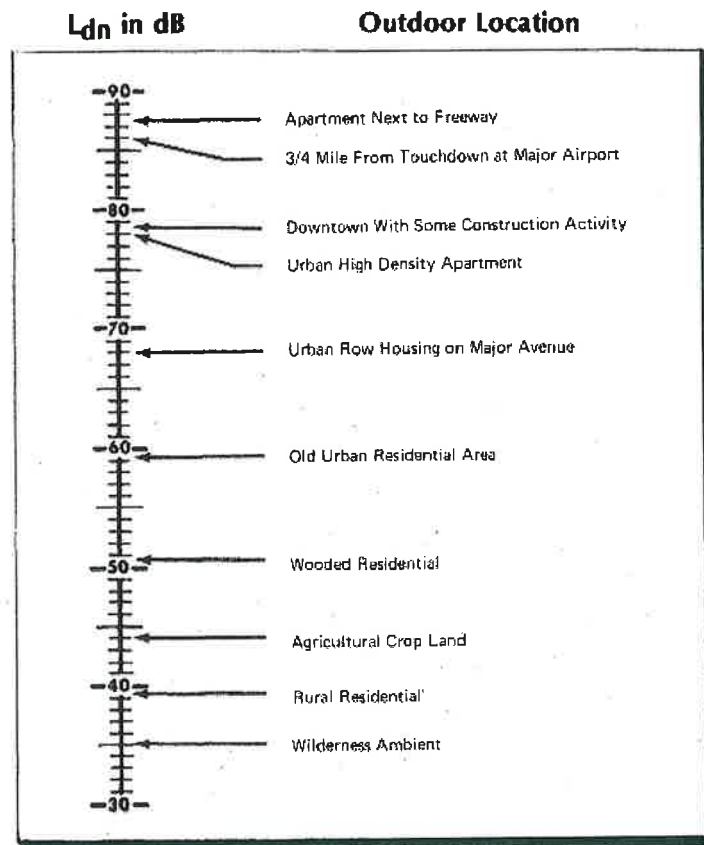
- The current NFPA requirements require that energy storage systems located outdoors shall be separated by a minimum of 10 feet from lot lines and public ways.
- The ordinance requires projects to be sited in M-1, M-2, M-3, A-1 and R-A zones. These facilities will be in mostly industrial areas, and will be harmonious with the existing uses of these zones.
- If a system is in compliance with the Fire Code, NEC, Vegetation and tree cutting requirements, noise requirements, and screening/visibility requirements, a 100-foot setback is not necessary.
- The Commonwealth of Virginia's Permit by Rule (PBR) Rule 9VAC15-100-70 (Small Energy Storage Facilities Permit by Rule) allows for compliance with existing zoning setback requirements. The PBR requirements state that the site plan must show "the boundaries of the [energy storage] site, disturbance zone with 100 foot buffer **or local zoning setback requirement** as applicable...". Ecoplexus recommends that the County's ordinance should reflect the same language.



§7(E) Noise

Subsection 7(E) Noise currently states that, "The average noise generated from the battery energy storage systems, components, and associated ancillary equipment at any time shall not exceed a noise level of 20 dBA as measured at the outside wall of any non-participating residence or occupied community building."

Ecoplexus recommends that the required sound level measurement of 20 dBA outdoors be revised to be a minimum of 55 or 60 dBA, which is consistent with average sound levels outdoors as noted by the U.S. Environmental Protection Agency's (USEPA) publication, "Protective Noise Levels - Condensed Version of EPA Levels Document"¹ excerpted below. Noise levels of 20 dBA would be akin to sound levels within a library or to an audible whisper, which would be overly restrictive for outdoor sound levels.



¹ USEPA, "Protective Noise Levels - Condensed Version of EPA Levels Document" of "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety" EPA/Office of Noise Abatement & Control (ONAC) 550/9-74-004, March 1974.



§7(F)(1) Decommissioning Plan

Subsection 7(F)(1) Decommissioning Plan. Ecoplexus recommends that subsection 7(F)(1)(f) of the ordinance specify how often the decommissioning security will need to be revisited, to keep costs current. As an example, most jurisdictions require revisiting the decommissioning cost/security every 3 or 5 years.

§7(F)(2) Decommissioning Fund

Subsection 7(F)(2) Decommissioning Fund. currently states that " The owner and/or operator of the energy storage system shall continuously maintain the fund or bond payable to the County of Prince George, in a form approved by the County of Prince George for the removal of the battery energy storage system, in an amount to be determined by the County of Prince George, for the period of the life of the facility. **This fund may consist of a letter of credit from a State of New York licensed-financial institution.** All costs of the financial security shall be borne by the applicant."

Ecoplexus would like to request clarification on the letter of credit/security requirement from a New York licensed financial institution and why a NYS licensed institution is necessary for a project in the State of Virginia or if this needs to be deleted.

The above concludes Ecoplexus's comments on Prince George County's proposed BESS ordinance. Should clarification of any of the above comments or additional discussion be necessary, Ecoplexus would be pleased to provide further explanation to assist the County with formulating its regulations. We appreciate your consideration and for the opportunity.

Respectfully yours,
Ecoplexus Inc.



March 8 Meeting Recap

BOS Approves March 2022 General Obligation Bond Issuance

At its March 8 meeting, the Prince George County Board of Supervisors, after listening to a presentation of lending options and a public hearing was held, unanimously voted to approve the March 2022 General Obligation Bond Issuance in the amount of \$4,775,000. A listing of projects for consideration for inclusion in the March 2022 debt issuance include the Prince George High School Generator, Zoll X Series Monitors/Defibrillators, Fleet Garage Bay Expansion, School Technology Infrastructure, School Buses, Police/County Vehicles, and Self Contained Breathing Apparatus. Approval of the bond issuance will allow for the reimbursement of funding used for completed projects and will provide funding for the Garage Renovation project. The Board also agreed to cash fund \$1,000,000 to keep the borrowing at the original estimate for the Garage renovation of \$2,100,000 instead of the updated budget amount for that project of \$3,065,000.

Other matters that came before the BOS at its meeting and work session:

- Discussed FY23 County Budget balancing.
- Received a roads maintenance report from VDOT.
- Received a report on property maintenance and inoperable vehicles.
- Unanimously reappointed Mr. Steve Brockwell to the Board of Grievance Appeals.
- Unanimously recommended to the Circuit Court to appoint Mr. Joshua Robert Norris to the Board of Zoning Appeals.
- Unanimously approved letter of support from Prince George County for City of Petersburg poor creek sanitary sewer and water service area – U.S. Department of Commerce EDA Grant.
- Held a public hearing and approved a resolution regarding the proposed authorization of the issuance of General Obligation Bonds in the maximum principal amount not to exceed \$5,775,000.
- Held a public hearing and unanimously approved a resolution appropriating up to \$3,071,460 in debt proceeds and/or General Fund, Fund Balance to the Capital Projects Fund.
- Held a public hearing and unanimously approved an ordinance to amend The Code of the County of Prince George, Virginia to amend the boundaries of the Bland Precinct and

Courts Building Precinct and to change the polling location for the Court Building Precinct.

- Held a public hearing and unanimously approved an ordinance adopting existing Code Section 30-33 of The Code of the County of Prince George, Virginia setting boundaries of Electoral Districts 1 and 2.
- Held a public hearing and unanimously approved the sale of County owned properties located in River's Edge Subdivision on Buxton Street.

AGENDA

Planning Commission
County of Prince George, Virginia
Organizational Meeting & Business Meeting: Thursday, April 28, 2022
County Administration Bldg. Boardroom, Third Floor
6602 Courts Drive, Prince George, Virginia

Business Meeting 6:30 p.m.

This meeting is being held in person and electronically in accord with Virginia Code Section 15.2-1413. The meeting is accessible by:

If you would like to participate in the meeting via Zoom –

<https://zoom.us/j/5053851421?pwd=V2pjSHFneFRUUE2bjNqQnR3emZoUT09>

Meeting ID: 505 385 1421

Password: 200726

One tap mobile

+19294362866,,5053851421#,,1#,200726# US (New York)

+13017158592,,5053851421#,,1#,200726# US (Germantown)

Dial by your location

+1 929 436 2866 US (New York)

+1 301 715 8592 US (Germantown)

+1 312 626 6799 US (Chicago)

+1 669 900 6833 US (San Jose)

During the public comment period you may raise your hand using the Zoom controls on your screen or press *9 on your phone. Visit the Zoom Help Center for more information. If you would like to view the meeting in real time use this link:

https://www.princegeorgecountyva.gov/live_stream/

Public comments may be made in person during any meeting. You may also submit any public comments on our website at

https://www.princegeorgecountyva.gov/departments/board_of_supervisors/public_comment_form.php.

Any public comments received via Zoom, in person or by the website form up until the public comment section is closed by the Chairman of the Planning Commission on April 28, 2022 shall be entered into the meeting minutes.

CALL TO ORDER – Chairman Bresko

Roll Call - Clerk

INVOCATION

PLEDGE OF ALLEGIANCE TO THE U.S. FLAG

ADOPTION OF AGENDA [1] – Chairman Bresko

PUBLIC COMMENTS - Chairman Bresko

The Public Comment period is open to anyone who wishes to speak to the Commissioners on any items not being heard as a Public Hearing item this evening. Please state your name and address, you will have three (3) minutes to speak.

ORDER OF BUSINESS

A-1. Adoption of the Work Session Minutes – March 21, 2022 [2] **Chairman Bresko**

A-2. Adoption of Meeting Minutes – March 24, 2022 [3] **Chairman Bresko**

PUBLIC HEARINGS

P-1. **SPECIAL EXCEPTION SE-22-02: [4] Tim Graves**
Powell Creek Solar

P-2. **SPECIAL EXCEPTION SE-22-03: [5] Andre Greene**
Krenicky Solar Facility

OLD BUSINESS

B-1. **SPECIAL EXCEPTION – SE-22-01: [6] Fung Assembly Hall**

COMMUNICATIONS – [7] Tim Graves, Planner

- A. Actions of the Board of Zoning Appeals
- B. Actions of the Board of Supervisors
 - a. BOS Recap
- C. Upcoming Cases for May 2022
 - a. Ordinance Amendment - OA-22-02 - Fee Schedule

ADJOURNMENT – Chairman Bresko



SPECIAL EXCEPTION APPLICATION

Department of Community Development and Code Compliance
Planning & Zoning Division

6602 Courts Drive, Prince George, VA 23875
(804) 722-8678 | www.princegeorgecountyva.gov

OFFICE USE ONLY

APPLICATION #:

SE-22-02

DATE SUBMITTED:

FEB 03 2022

APPLICANT FILL-IN ALL BLANKS

| | | | |
|--|---|--|--|
| REQUEST | REQUEST: Powell Creek Solar Submitted by: Powell Creek Solar, LLC | | |
| | REQUEST PROPERTY ADDRESS / LOCATION: 14921 JAMES RIVER DRIVE Disputanta, VA 23842 | | |
| | REQUEST TAX MAP PIN(S): (List all) 270(03)00-003-0 | AFFECTED ACREAGE (Each parcel): Project Area: ~ 42 ac Total Parcel Area: 610 ac | ENTIRE PARCEL (Y / N - Each parcel): No |
| | ATTACHMENTS (Check if Attached; * = Required): <input checked="" type="checkbox"/> APPLICANT STATEMENT* (Specify goals, details, etc.) <input checked="" type="checkbox"/> PROPOSED CONDITIONS <input checked="" type="checkbox"/> SITE LAYOUT SKETCH OR CONCEPTUAL SITE PLAN* (Show proposed improvements; Use GIS or Engineer Drawing) <input type="checkbox"/> COMMUNITY MEETING SUMMARY <input checked="" type="checkbox"/> ADDITIONAL ATTACHMENTS: Application document includes potential tech spec sheets | | |
| LEGAL OWNER | NAME(S): Ronald Heretick | | |
| | MAILING ADDRESS: (Incl. City, State, Zip): 14921 JAMES RIVER DRIVE Disputanta, VA 23842 | | |
| | E-MAIL: ronald.e.h51@gmail.com | PHONE: 804-926-0262 | |
| APPLICANT CONTACT | NAME(S): If different than owner): Ken Young, Chief Operating Officer | | |
| | RELATION TO OWNER: Project Developer/Land Tenant | | |
| | MAILING ADDRESS: (Incl. City, State, Zip): Apex Clean Energy 120 Garrett Street, Suite 700 Charlottesville, VA 22902 | | |
| | E-MAIL: andrew.hull@apexcleanenergy.com | PHONE: 919-724-1806 | |
| OFFICE USE ONLY (Completed at the time of application) | | | |
| ZONING DISTRICT(S): | | LAND USE(S) CODE REFERENCE(S): | |
| PAYMENT | FEE DUE: Special Exception: \$700 Special Exception Home Occ: \$350 | FEE PAID: | PAYMENT TYPE: CHECK / CASH / CREDIT / DEBIT |
| | CHECK # / TRANSACTION #: | DATE RECEIVED: | RECEIVED BY: |

OWNER AFFIDAVIT

The undersigned Property Owner(s) or duly authorized Agent or Representative certifies that this petition and the foregoing answers, statement, and other information herewith submitted are in all respect true and correct to the best of their knowledge and belief.

NAME:

RONALD E HERETICK

NAME:

SIGNED:

Ronald E Heretick

SIGNED:

DATE:

01/31/2022

DATE:

NOTARIZATION:

STATE OF VIRGINIA

COUNTY OF:

Chesterfield

Subscribed and sworn before me this

31

day of

January, 20 22.

Notary Public

Brittany L. Grant

My Commission expires:

04/30, 2024



SPECIAL EXCEPTION APPLICATION

Department of Community Development and Code Compliance
Planning & Zoning Division
6602 Courts Drive, Prince George, VA 23875
(804) 722-8678 | www.princegeorgecountyva.gov

OFFICE USE ONLY

APPLICATION #:

SE-22-03

DATE SUBMITTED:

RECEIVED
FEB 22 2022
BY: THG

APPLICANT FILL-IN ALL BLANKS

| | | | |
|--------------------------|---|------------------------------------|---|
| REQUEST | REQUEST: | | |
| | Krenicky - Community Solar Garden | | |
| | REQUEST PROPERTY ADDRESS / LOCATION: | | |
| | 14016 South Crater Road | | |
| REQUEST | REQUEST TAX MAP PIN(S): (List all) | AFFECTED ACREAGE (Each parcel): | ENTIRE PARCEL (Y / N - Each parcel): |
| | 510(0A)00-070-0, 510(0A)00-070-A, 510(0A) 00-070-B, 510(0A)00-070-C, 510(0A)00-070-D | 20.7 Acres | No |
| | ATTACHMENTS (Check if Attached; * = Required): | | |
| | <input checked="" type="checkbox"/> APPLICANT STATEMENT* (Specify goals, details, etc.) <input type="checkbox"/> PROPOSED CONDITIONS <input checked="" type="checkbox"/> SITE LAYOUT SKETCH OR CONCEPTUAL SITE PLAN* (Show proposed improvements; Use GIS or Engineer Drawing) | | |
| LEGAL OWNER | NAME(S): | | |
| | Frank G Krenicky and Ethel R Krenicky | | |
| | MAILING ADDRESS: (Incl. City, State, Zip): | | |
| | 14110 S Crater Road, South Prince George, VA 23805 | | |
| LEGAL OWNER | E-MAIL: | PHONE: | |
| | Paul Vlk - pvlk@hajoca.com | Paul Vlk - 804-245-4043 | |
| | NAME(S): If different than owner): | | |
| | IPS Solar - Jesse Dimond | | |
| APPLICANT CONTACT | RELATION TO OWNER: | | |
| | Project Developer | | |
| | MAILING ADDRESS: (Incl. City, State, Zip): | | |
| | 2670 Patton Road, Roseville, MN 55113 | | |
| APPLICANT CONTACT | E-MAIL: | PHONE: | |
| | jessed@ips-solar.com | 651-285-2253 | |
| | OFFICE USE ONLY (Completed at the time of application) | | |
| | ZONING DISTRICT(S): R-A | | |
| PAYMENT | LAND USE(S) CODE REFERENCE(S): | | |
| | 90-103(57) | | |
| | FEE DUE: | FEE PAID: | PAYMENT TYPE: |
| | Special Exception: \$700 Special Exception Home Occ: \$350 | | CHECK / CASH / CREDIT / DEBIT |
| CHECK # / TRANSACTION #: | DATE RECEIVED: | RECEIVED BY: | |

OWNER AFFIDAVIT

The undersigned Property Owner(s) or duly authorized Agent or Representative certifies that this petition and the foregoing answers, statement, and other information herewith submitted are in all respect true and correct to the best of their knowledge and belief.

NAME:

FRANK G. KRENICKY

NAME:

ETHEL R. KRENICKY

SIGNED:

Frank G. Krenicky

SIGNED:

Ethel R. Krenicky

DATE: 12-16-21

DATE: 12-16-21

NOTARIZATION:

STATE OF VIRGINIA

CITY Richmond

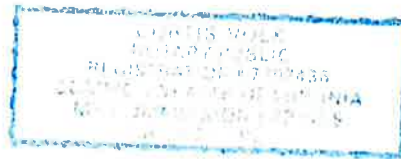
COUNTY OF: Richmond

Subscribed and sworn before me this 16 day of December, 20 21.

[Signature]

Notary Public

My Commission expires: 7/31, 20 22



AFFIDAVIT

AGENDA

Planning Commission
County of Prince George, Virginia
Organizational Meeting & Business Meeting: Thursday, May 26, 2022
County Administration Bldg. Boardroom, Third Floor
6602 Courts Drive, Prince George, Virginia

Business Meeting 6:30 p.m.

This meeting is being held in person and electronically in accord with Virginia Code Section 15.2-1413. The meeting is accessible by:

If you would like to participate in the meeting via Zoom –

<https://zoom.us/j/5053851421?pwd=V2pjSHFneFRUUE2bjNqQnR3emZoUT09>

Meeting ID: 505 385 1421

Password: 200726

One tap mobile

+19294362866,,5053851421#,,1#,200726# US (New York)

+13017158592,,5053851421#,,1#,200726# US (Germantown)

Dial by your location

+1 929 436 2866 US (New York)

+1 301 715 8592 US (Germantown)

+1 312 626 6799 US (Chicago)

+1 669 900 6833 US (San Jose)

During the public comment period you may raise your hand using the Zoom controls on your screen or press *9 on your phone. Visit the Zoom Help Center for more information. If you would like to view the meeting in real time use this link:

https://www.princegeorgecountyva.gov/live_stream/

Public comments may be made in person during any meeting. You may also submit any public comments on our website at

https://www.princegeorgecountyva.gov/departments/board_of_supervisors/public_comment_form.php.

Any public comments received via Zoom, in person or by the website form up until the public comment section is closed by the Chairman of the Planning Commission on May 26, 2022 shall be entered into the meeting minutes.

CALL TO ORDER – Chairman Bresko

Roll Call - Clerk

INVOCATION

PLEDGE OF ALLEGIANCE TO THE U.S. FLAG

ADOPTION OF AGENDA [1] – Chairman Bresko

PUBLIC COMMENTS - Chairman Bresko

The Public Comment period is open to anyone who wishes to speak to the Commissioners on any items not being heard as a Public Hearing item this evening. Please state your name and address, you will have three (3) minutes to speak.

ORDER OF BUSINESS

A-1. Adoption of the Work Session Minutes – April 25, 2022 [2] **Chairman Bresko**

A-2. Adoption of Meeting Minutes – April 28, 2022 [3] **Chairman Bresko**

PUBLIC HEARINGS

P-1. OA-22-02 - Fee Schedule

COMMUNICATIONS – [] Tim Graves, Planner

- A. Actions of the Board of Zoning Appeals
- B. Actions of the Board of Supervisors
 - a. BOS Recap
- C. Upcoming Cases for June 2022
 - a.

ADJOURNMENT – Chairman Bresko

GUIDE:

Bold font inside table = proposed new text

Strikethrough = remove existing text

Highlighting = discuss

ONCE ALL CHANGES ACCEPTED, consider separating all fees by categories, e.g.:

Public Hearing Requests, Administrative Reviews, Land Disturbance / E&S Reviews, All Other

NOTE: Did we talk about moving all of this into the Zoning Ordinance instead of Administrative?

Sec. 2-2. Fees.

| REQUESTED ACTION | [REMOVE COLUMN] | FEE |
|---|----------------------------|---|
| Rezoning | base fee | \$1,050.00 |
| rezone to: Rezone to: A-1 | A-1, A-2 | no additional fee \$1,050.00 |
| Rezone to: R-A, R-E | R-A, R-E | \$1,050.00 plus \$88.00/acre |
| Rezone to: All other zoning districts | MHP, R-1, R-2, R-3 | \$1,050.00 plus \$140.00/acre |
| | B-1, B-2, B-3, PB, NB, PUD | \$140.00/acre |
| | I-1, I-2 | \$140.00/acre |
| Amend Zoning Case | | \$1,050.00 |
| Amend Comprehensive Plan | | \$700.00 |
| Amend Zoning Ordinance | | \$700.00 |
| Traffic Impact Analysis Review (TIA) | | \$700.00 |
| Special Exception (Conditional Use Permit) | | \$700.00 |
| Special Exception Home Occupation | | \$350.00 |
| Conditional Use Permit | | \$875.00 |
| Special Exception to BZA | | \$250.00 |
| Variance/Appeal/Other BZA Public Hearing Request | | \$350.00 |
| Administrative Variance | | \$50.00 (+ \$300 if forwarded to the BZA) |
| Deferral Request (by applicant for public hearing requests) | | \$625.00 |
| Site Plan Review (including Engineering Plans required by Subdivision Ordinance) | | \$350.00 + \$35.00 per acre (parcel acreage or acreage shown on Site Plan??) |
| Minor Site Plan Review | | \$250.00 |
| Site Plan Re-Review | | \$250.00 per review starting with the 4th review OR making Minor Site Plan criteria changes to an approved Site Plan? |
| Residential Subdivision Land Disturbance Permit/E&S Fee | | \$200.00 + \$20.00 per acre disturbed |

Proposed P&Z Fee Ordinance Changes for early 2022 (Clarifications only) Revised 3-1-22

| | | |
|---|----------|--|
| Commercial Land Disturbance Permit/E&S Fee | | \$400.00 + \$25.00 per acre disturbed |
| Agreement in Lieu (Residential) | | \$35.00 |
| LDP Re-inspection Fee | | \$40.00 |
| LDP Dormant Project Review Fee | | \$75.00 |
| Zoning Compliance Certification Letter | | \$44.00 |
| Subdivision Plat Review (including Family Divisions and Resubdivisions): | | 2—5 lots: \$275 6+ lots: \$350.00 + \$35.00 per lot |
| | 2—5 lots | \$275.00 |
| | 6+ lots | \$350.00 + \$35.00 per lot |
| Other Plat Reviews: Boundary Line Adjustment, Vacation, Easement or ROW, Consolidation, or Plat Recordation Plat | | \$50.00 |
| Deferral Request | | \$625.00 |
| Zoning Ordinance Change | | \$700.00 |
| FEMA Elevation Certificate Review, FIRM Map Confirmation | | \$25.00 |
| FIRM Map Confirmation | | \$25.00 |
| DMV Compliance Letter | | \$25.00 |
| Residential Group Home Zoning Review | | \$25.00 |
| In-Home Day Care Zoning Review | | \$25.00 |
| Professional Business Zoning Approval Form | | \$25.00 |
| Special Exception to BZA | | \$250.00 |
| Administrative Second Dwelling Use | | \$200 (\$25 annual renewal fee) |
| Residential Subdivision Land Disturbance Permit/E&S Fee | | \$200.00 + \$20.00 per acre disturbed |
| Commercial Land Disturbance Permit/E&S Fee | | \$400.00 + \$25.00 per acre disturbed |
| Agreement in Lieu (Residential) | | \$35.00 |
| LDP Re-inspection Fee | | \$40.00 |
| LDP Dormant Project Review Fee | | \$75.00 |

(Ord. No. O-08-05, 9-9-2008; Ord. No. O-09-04, 3-10-2009; Ord. No. O-09-06, 4-28-2009; Ord. No. O-10-02, 2-9-2010; Ord. No. O-12-10, 6-12-2012; Ord. No. O-12-37, § 1, 11-27-2012)