AGENDA

I. CALL TO ORDER

II. MINUTES

- February 22, 2018

III. UNFINISHED BUSINESS

IV. NEW BUSINESS


V. PLANNING DIRECTOR
   Update on Zoning Ordinance Subcommittee

VI. PUBLIC COMMENT

VII. ADJOURNMENT
VIRGINIA:

The meeting of the Charles City County Planning Commission was held on February 22, 2018, in the 243rd year of the Commonwealth, and the 384th year of the County. Chairman Edward L. Baber, Jr. called the meeting to order at 7:00 P.M.

PRESENT: Edward L. Baber, Jr., Chairman
William B. Bailey
Gilbert A. Smith
Brenda Adkins
Kevin R. Pittman
Andrew Adams
Yvonne Smith-Jones

OTHERS: Rachel Chieppa, Asst. Co. Administrator/Community Development Director
Myles Busching, Planner/Asst. Zoning Administrator
Denise Williams, Community Development Specialist

ABSENT: C. Linny Miles

RE: MINUTES

The Commission minutes for January 25, 2018, were presented for approval. Mrs. Adkins made a motion to approve, as corrected, the January 25, 2018 minutes. The motion was seconded by Mr. Adams, and carried by a vote of 7:0.

RE: ANNUAL REPORT

The Planning Commissioners Annual Report was presented for FY 2017. Mr. Baber suggest adding to the report the personnel changes and past planning commission members. Mrs. Adkins made a motion to approve, with corrected changes, the annual report. The motion was seconded by Mr. Bailey, and carried by a vote of 7:0.

RE: REZ-01-2018, CHARLES CITY COUNTY (T.M.#7-12-C)

Application #REZ-01-2018, Charles City County, requests to rezone 44 (+) acres (T.M. 7-2-C) from Light Industrial (M-1) to Heavy Industrial (M-2). The site is located on Roxbury Road (Route 106). Mrs. Chieppa explained the reason for presenting the rezoning application in tonight’s meeting. She stated that the rezoning would make the property more attractive and marketable in that corridor. The Commissioners discussed and examined the map in the area around the property. Mrs. Chieppa would like the Commissioners to make a recommendation to approve, deny or send the application to the next Board of Supervisors for Joint Public Hearing.

Mr. Adams made a motion to send application #REZ-01-2018, Charles City County, 44 (+) acres (T.M. 7-2-C) from Light Industrial (M-1) to Heavy Industrial (M-2) to the Board of Supervisors for a joint public hearing. The motion was seconded by Mr. Pittman and carried by a 7:0 vote.
COMMUNITY DEVELOPMENT DIRECTOR

Mr. Busching presented an overview of the SWOT analysis for the Route 106 Masterplan. Mr. Busching explained the environmental, existing land use, zoning in the area. Mr. Busching discussed traffic counts and future population projections. Mr. Busching facilitated a SWOT analysis with the Commissioners. (Strengths, Weaknesses, Opportunities, and Threats).

PUBLIC COMMENT

There was no public comment.

ADJOURMENT:

The Commission meeting was adjourned at 8:42 P.M.

Edward L. Baber, Jr., Chairman

Recording Secretary
GENERAL INFORMATION

Applicant: sPower Development Company, LLC
Owner: Jonathan C. Kinney
Applications: SUP-01-2018 & SUP-02-2018
Acreage: Keydet Solar A: 2,113.6 acres; Keydet Solar B: 156.5 acres

REQUESTED ACTION:
The Applicant is requesting approval of two special use permits to allow construction of a 340 megawatt (MW) solar energy facility. The project has been broken into two separate applications to reflect the fact that parcel 13-96 (Keydet Solar B) is located over a mile from the main project area and may have different overall considerations.

SITE LOCATION:
The primary project area, known as Keydet Solar A, consists of approximately 2,114 acres located on the east side of Roxbury Road (Rt. 106) between Wayside Road (Rt. 607) and Cattail Road (Rt. 650).

The secondary project area, Keydet Solar B, consists of a single parcel, approximately 157 acres in size, located on the south side of Old Union Road (Rt. 603), to the east of the intersection with Waymacks Road (Rt. 655).

LAND USES/ZONING:
All subject parcels are currently zoned Agriculture (A-1). A solar energy facility is allowed in the Agriculture zoning district with a Special Use Permit. All neighboring properties are likewise zoned for agriculture.

The subject parcels are currently vacant and used primarily for timber and hunting. Most of the adjoining properties are small lots used for rural residences. Adjoining the Keydet Solar A project area to the east, Aggregate Industries operates an industrial-scale sand and gravel mine under special use permit.
COMPREHENSIVE PLAN:

The Comprehensive Plan designates most of the area in the Keydet A project area as part of the industrial reserve. The industrial reserve is intended to accommodate industrial uses which are not compatible with the other uses in the Roxbury Development Center. In general, the Comprehensive Plan envisions heavy industry locating in this area. These uses, along with related commercial activity, are intended to be heavily screened from the surrounding residences to reduce negative impacts. The proposed use is a form of manufacturing and is classified as industrial. Given the scale of the use, the proposal is generally consistent with the overall purpose of providing industrial land for uses which cannot locate in the Roxbury area.

The parcels in the northeastern corner of the Keydet Solar A project area as well as the parcel intended for the Keydet Solar B project are located on properties that the Comprehensive Plan designates for rural land uses. The rural areas are intended for agriculture, forestry, and rural residential development. The Comprehensive Plan does envision limited industrial uses compatible with the rural character on these properties. A solar energy facility, once constructed, would passively generate electricity and would have almost no impact on adjoining properties. Given the passive character of solar energy production, the proposed use can be consistent with the rural designation in these areas with proper safeguards such as screening and restrictions on hours of construction.
ECOLOGICAL DEVELOPMENT STRATEGIC PLAN:

The Economic Development Strategic Plan specifically mentions recruiting solar power generation facilities as part of Initiative #2 under the Action Initiatives for Economic Growth. This project will help to fulfill this portion of the Strategic Plan. A utility scale solar energy facility will provide an increase in tax revenue and help to support other development along the Route 106 industrial corridor. The proposed solar energy use is consistent with Economic Development Strategic Plan.

SPECIAL INFORMATION:

Public Services: Potential access sites are proposed for the Keydet Solar A project on Wayside Road (Rt. 607), Roxbury Road (Rt. 106), and Barnetts Road (Rt. 609). The Keydet Solar B site would be accessed via Old Union Road (Rt. 603). Access is subject to change during the site plan review process to address County and VDOT concerns. VDOT has been sent the special use permit application packet for review, but no comments have been received to date. No public sewer or water is available on site. The Applicant is proposing to bring portable toilets to the site for construction. On-site wells will be constructed to provide for dust control and cleaning of the panels. In addition, water tanks will be constructed on site to supply water for emergency response.

Sensitive Features: Both sites have delineated wetlands which are part of the Resource Protection Area (RPA). The proposed solar panels will be built outside of the wetlands and RPA. Several wetlands crossings are proposed on the Keydet Solar A site. These crossings will require additional review by the Army Corps of Engineers. Further environmental review in accordance with Department of Environmental Quality regulations for RPA features will also be needed.
RECOMMENDED ACTION:

1. If the Planning Commission deems the use inconsistent with the Comprehensive Plan or incompatible with surrounding land uses, a recommendation of denial should be forwarded to the Board of Supervisors. The Planning Commission should make clear the reasons for the recommendation of denial based on the criteria for issuance of a Special Permit found in Section 26-3 of the Zoning Ordinance.

2. If the Planning Commission deems the use consistent and in accordance with the Comprehensive Plan and compatible with surrounding land uses, a recommendation of approval should be forwarded to the Board of Supervisors.

Staff recommends the following conditions be included:

1. The site shall be in general conformance with the information and exhibits submitted with this Special Use Permit application, except as modified by associated conditions and as required by the land development ordinances of Charles City County.

2. The solar energy facility use shall be established and operational within three (3) years of approval. The Zoning Administrator may approve an extension of up to two (2) years upon written request from the Applicant detailing the need for an extension.

3. All construction activity shall be limited to the hours between 7:00 A.M. and 7:00 P.M., Monday through Friday.

4. A site plan shall be required for this use.

5. The Applicant shall maintain a one-hundred (100) foot vegetated buffer around the facilities. Existing trees and vegetation shall not be removed in this area, except as necessary for construction of entrances to the property. Where existing vegetation is sparse or cleared for construction, an additional four (4) foot wide landscaping buffer consisting of native vegetation shall be planted by the Applicant to screen the use from view from outside the project property. The Applicant shall submit a landscaping and planting plan with the first submission of the site plan.

6. The facilities shall be enclosed with security fencing not less than six (6) feet in height.

7. The Applicant shall submit a Construction Traffic Management Plan with the first submission of the site plan. The Construction Traffic Management Plan shall address traffic control measures, an evaluation of the condition of the public roads along delivery routes prior to construction, and an estimate of any repairs to public roads that may arise due to damages attributable to project construction. The Applicant shall provide a bond or other surety as agreed to by the County Attorney for the cost of said repairs based on this estimate. The Virginia Department of Transportation (VDOT) must approve the pre-construction evaluation prior to approval of the site plan.

8. Upon completion of facility construction, the Applicant shall submit a post-construction evaluation of the condition of the roads along the delivery routes to the Zoning Administrator and VDOT for approval. The post-construction evaluation shall include a plan for repairing any damage caused to public roads. The Applicant, shall be responsible for causing such repairs to be completed within the timeline approved by VDOT. The surety for repairs shall
be released within six months of completion of all repairs identified in the post-construction evaluation.

9. The Applicant shall submit a Stormwater Management Plan and an Erosion and Sediment Control Plan with the first submission of the site plan. Prior to approval of these plans, the Applicant shall, at its own expense, retain the services of third-party stormwater and erosion and sediment control inspectors. The County shall retain the right to inspect the project to verify the findings of the third-party inspectors.

10. The Applicant shall submit an Emergency Response Plan with the first submission of the site plan. The plan shall include fire suppression methods that can be immediately deployed during both construction and operation of the Project. The plan shall also include a program of education and training to be provided for County emergency response staff with regards to safety for on-site emergency response.

11. The Applicant shall construct water tanks on site to provide water for emergency response. The procedures for maintenance of the water tanks shall be included in the Emergency Response Plan.

12. Permanent lighting shall be limited to the minimum amount necessary for security purposes, and all lighting shall be shielded and directed to prevent light trespass on surrounding properties. The Applicant shall submit a photometric analysis with the first submission of the site plan.

13. No signage shall be permitted on-site other than such notices, warnings, and identification information as required by law.

14. The Applicant shall immediately provide notice of inactivity to the Zoning Administrator in writing if the facility ceases operations. The use shall be considered abandoned if inactive for a period of twenty-four (24) consecutive months.

15. The Applicant shall submit a Decommissioning Plan with the first submission of the site plan. The decommissioning plan shall include specifications for the removal of all solar equipment, buildings, cabling, electrical components, roads, foundations, pilings, and fencing to a depth of thirty-six (36) inches. In addition, the plan shall detail the process for returning the land to a useable state as permitted by the land use regulations in effect at the time of decommissioning.

16. All decommissioning work shall be completed within six (6) months of abandonment, as dated from receipt of the County Notice of Abandonment. The Zoning Administrator may grant an extension for an additional six (6) months upon written request from the Applicant detailing the need for an extension.

17. If decommissioning work is not completed within the allotted time, the County may cause removal of the facility with all costs borne by the Applicant. The Applicant shall secure the costs of decommissioning by providing financial surety in a form agreed to by the County Attorney. The Applicant shall submit an updated cost of decommissioning to the Zoning Administrator in writing every five (5) years, and the County may, at its option, require the surety amount be increased to reflect the increased cost of decommissioning.
Special Use Permit Application

Keydet Solar A

Applicant:
sPower Development Company, LLC

S·POWER
An AES and AIMCo Company

2180 South 1300 East, Suite 600
Salt Lake City, UT 84106

February 2018
CHARLES CITY COUNTY
Special Use Permit Application
Application #________________
Date____________________
Fee______________________

TO THE ZONING ADMINISTRATOR:

The Applicant sPower Development Company, LLC (sPower) is (are) the lessee (owner) of
property situated at ________________ between
______________ Street and ________________ Street.

Exact Legal Description (Lot, Block and Tract) of said property being
Refer to Exhibit A of Special Use Permit Application

(A map of which and property owner’s list are hereto attached and made a part of this application.)

A) Above described property was acquired by Applicant on ________________.

B) What original deed restrictions concerning type of improvements permitted, if any, were
placed on the property involved? Give date said restrictions expire _________________. (You
may attach copy of original printed restrictions in answer to this question after properly
underscoring those features governing the type of class of uses permitted thereby.)

C) Request: The applicant requests that you approve the location of the following use on the
above described property: (Use this space ONLY to state exactly what is intended to be
done on, or with the property. Use space on Page 2 for circumstances pertaining to this
request. If a building is involved, a sketch or plan, with photographic or other suitable
description should accompany this application.)

REQUIREMENTS AND INSTRUCTIONS FOR FILING APPLICATION FOR
SPECIAL USE PERMIT

1) The Application Form must be filled out completely with full answers to every statement
and question. The application MAY NOT be signed by an agent or attorney but MUST be
signed by the lessee, owner, or owners before a Notary Public in the space provided on
Applicant’s Affidavit. Signatures of adjacent property owners who approve the request may
be signed in the space provided on Applicant’s Affidavit. If space is not sufficient, a
supplemental sheet may be added to the petition. Such signatures are desirable but are not
absolutely required.

2) The FILING FEE in the amount of $1,000 payable to County Treasurer,
must be paid at the time of filing application.
Application # __________________
Date ________________________

GENERAL INFORMATION

1) Describe briefly the type of use and improvements proposed. State whether new buildings are to be constructed, existing buildings are to be used, or additions made to existing buildings.

Refer to Exhibit C of Special Use Permit Application

----------------------------------------------------------------------------------------------------

2) Why does applicant believe the location of the use in question on the particular property is essential or desirable for the public convenience or welfare and will not be detrimental to the immediate neighborhood?

Refer to Exhibit C of Special Use Permit Application

----------------------------------------------------------------------------------------------------

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

Refer to Exhibit C of Special Use Permit Application

----------------------------------------------------------------------------------------------------

4) Furnish plot plan showing boundaries and dimensions of property, width of boundary streets, location and size of buildings on the site, roadways, walks, off street parking and loading space, landscaping and the like. Architect’s sketches showing elevations of proposed buildings and complete plans are also desirable and if available should be filed with application.

Refer to Exhibit D of Special Use Permit Application

----------------------------------------------------------------------------------------------------
Proposed use of property  Solar Energy Facility

Give exact location of property  Refer to Attachment

County Tax Map Parcel #  Refer to Attachment
Total Acreage  2,113.6  Acreage under permit  2,113.6

Owner of Property  Jonathan C. Kinney
Address  2300 Wilson Boulevard, 7th Floor, Arlington Virginia 22201
Daytime Phone  703-525-4000  Cell

Applicant/Agent  sPower Development Company, LLC
Address  2180 South 1300 East, Suite 600, Salt Lake City, Utah 84106
Daytime Phone  801-679-3500  Cell

I do hereby certify that to the best of my knowledge, all information contained within this application is true and correct. I have attached a survey plat of the area proposed for rezoning and the following additional materials.

OWNERS SIGNATURE  DATE

Refer to Exhibit B of Special Use Permit Application

APPLICANT/AGENT SIGNATURE

Garret Bean, VP of Development
Special Use Permit Application
Attachment

Property Location

The property is located in western Charles City County, and is generally bounded to the south by Wayside Road (State Route 607); to the west by Roxbury Road (State Route 106); to the east by Barnetts Road (State Route 609); and to the north by Cattail Road (State Route 650). Refer to Map on next page.

Property Acquisition

sPower Development Company, LLC (Applicant) has an executed Real Estate Purchase Option Agreement with Jonathan C. Kinney (current property owner) for the property described in this Special Use Permit Application. Acquisition of the property will occur when the Applicant’s Building Permits are approved by Charles City County for the proposed Solar Energy Facility.

County Tax Map Parcel #

The property includes the following County Tax Map Parcel Numbers:

<table>
<thead>
<tr>
<th>Parcel ID</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>23-25</td>
<td>2.2</td>
</tr>
<tr>
<td>23-7-1</td>
<td>61.6</td>
</tr>
<tr>
<td>23-7-2</td>
<td>16.95</td>
</tr>
<tr>
<td>23-23</td>
<td>315.01</td>
</tr>
<tr>
<td>23-26</td>
<td>310.5</td>
</tr>
<tr>
<td>24-1</td>
<td>91.14</td>
</tr>
<tr>
<td>24-2</td>
<td>91.92</td>
</tr>
<tr>
<td>24-3</td>
<td>22.09</td>
</tr>
<tr>
<td>24-4</td>
<td>268.27</td>
</tr>
<tr>
<td>24-5</td>
<td>38.6</td>
</tr>
<tr>
<td>24-6</td>
<td>40.0</td>
</tr>
<tr>
<td>24-7</td>
<td>198.62</td>
</tr>
<tr>
<td>24-61</td>
<td>288</td>
</tr>
<tr>
<td>24-62</td>
<td>80.5</td>
</tr>
<tr>
<td>13-46</td>
<td>117.2</td>
</tr>
<tr>
<td>13-47</td>
<td>161.0</td>
</tr>
<tr>
<td>14-22</td>
<td>10.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,113.6</td>
</tr>
</tbody>
</table>
EXHIBIT A

LEGAL DESCRIPTION OF THE PROPERTY

PARCEL I: Tax Map No. 23 23

ALL that certain tract or parcel of land lying and being in Harrison Magisterial District, Charles City County, Virginia, being commonly known as the northern half of the "Rathine and Rex Tract," containing 305.78 acres, more or less, which said land is bounded on the northwest by Highway No. 106 (described as State Route 605 in prior instruments of record), on the east by the land formerly of Continental Forest Industries and the land formerly of Chesapeake Corporation, and on the south by the land formerly of Continental Forest Industries.

LESS AND EXCEPT 6.03 acres heretofore conveyed to the Commonwealth of Virginia for highway purposes by Lynwood W. Orange and Winnie B. Orange, his wife, by deed dated July 24, 1974, recorded September 12, 1974, Charles City County, Virginia, Circuit Court Clerk's Office in Deed Book 61, Page 155.

TOGETHER WITH Parcel A, C and D as shown on the Plat recorded at Plat Slide 423 as contained in the Deed of Boundary Adjustment and Easement recorded January 26, 2005, in Deed Book 253, Page 1116.

LESS AND EXCEPT Parcel B as shown on the above referenced Plat as was conveyed by the aforesaid Deed recorded in Deed Book 253, Page 1116.


PARCEL II: Tax Map No. 24-7
Tract CC-001 (HARDEN)

ALL that certain parcel or tract of land, lying, being and situate in Harrison Magisterial District, Charles City County, Virginia, and more particularly described as follows: Bounded on the east by Piping Tree Road (being the main road leading from Hardens to Montpelier); on the north by the tract of land now or formerly known as Rockdale, by property now or formerly owned by Richard Crane, the Johnsons and by land now or formerly owned by Spotswood Adkins; on the west by the tract of land now or formerly known as Rex Tract, now of formerly known as Rex Tract, now of formerly owned by Saunders Estate, and on the south by the lands now or formerly owned by George Charity, this said tract containing two hundred (200) acres, more or less, and being all of the tract now or formerly known as Hardens tract.

LESS AND EXCEPT that certain parcel of land containing 0.230 acres, more or less, conveyed to Charles City County by deed dated May 5, 1980, recorded August 8, 1980, in the Clerk's Office, Circuit Court, Charles City County, Virginia in Deed Book 72, Page 705.
LESS AND EXCEPT that portion of the property conveyed to the Commonwealth of Virginia for improvements to Route 607 by deed dated February 11, 2015, record in the Clerk's Office aforesaid as Instrument No. 150000411.


PARCEL III: Tax Map No. 23-7-1 and Tax Map No. 23-7-2
Tract Number CC-049 (Tyler #1 & #2 - P22)

ALL those tracts of land situate in Charles City County, Virginia, containing 61.6 acres, more or less, and 21.2 acres, more or less, of land respectively, and any improvements thereon and appurtenances thereto belonging, shown on a plat of survey made by C.E. Williams, C.L.S., dated January, 1960, entitled "Continental Can Company, Inc. - Layfield - Tyler #1 & 2 Tracts - No. 34-77L, 61.6 Acres - Tyler #1, 21.2 Acres - Tyler #2, 82.8 Acres - Total, Harrison District, Charles City County, Virginia," and recorded in Slide 176.

LESS AND EXCEPT that certain parcel of land containing 4.15 acres as conveyed to the Commonwealth of Virginia by deed dated April 30, 1976, recorded September 7, 1976, in the Clerk's Office, Circuit Court, Charles City County, Virginia in Deed Book 64, Page 515.

LESS AND EXCEPT that certain parcel of land containing 2.20 acres conveyed to Charles City Project One, dated May 27, 1986, recorded July 17, 1986, in the Clerk's Office aforesaid in Deed Book 85, Page 633.


PARCEL IV: Tax Map No. 13 46
Tract Number CC-056 (WRIGHT TISDALE)

ALL that certain tract or parcel of land, situated in Harrison Magisterial District, Charles City County, Virginia, containing 117.2 acres, more or less, and bounded and described as indicated on a plat thereof, made by Alan G. Tayloe, C.L.S., dated October, 1962, recorded in Deed Book 45, Page 346, (Plat Book 3, Page 160).

TOGETHER WITH all of the interest of the grantor in and to that certain non-exclusive easement 30' in width granted by instrument recorded in Deed Book 45, Page 346 as the same was amended by instrument recorded in Deed Book 236, Page 384.
FURTHER TOGETHER WITH a perpetual, non-exclusive easement of right of way 50 feet in width as is more particularly described and granted in Deed of Easement of record in the aforesaid Clerk's Office in Deed Book 236, Page 384.

LESS AND EXCEPT that certain parcel of land containing 0.14 acres as conveyed to the Commonwealth of Virginia by deed dated May 20, 1970, recorded July 15, 1970, in the Clerk's Office, Circuit Court, Charles City County, Virginia in Deed Book 54, Page 310.


PARCEL V: Tax Map No. 241
Tract Number CC-014 (GILL)

ALL that certain piece or parcel of land lying and being in Harrison District, Charles City County, Virginia, historically said to contain one hundred (100) acres, more or less, being the northern part of the tract of land now or formerly known as "Buffins"; the property is described as 98 +/- acres per plat of survey dated September, 1951 to February, 1952, by W. G. Chappell, CLS, entitled "Map Showing A Tract Of Land Situated Harrison District Charles City County, Virginia Locally Known as The Gill or Buffins Tract Owned By And Surveyed For Continental Can Company, Inc."

LESS AND EXCEPT that portion of the above described property previously conveyed to Jonathan Kinney, Trustee, by deed of record in Deed Book 253, Page 1116, in Charles City County real estate records, but together with additional property conveyed to Riveroak by deed recorded in Deed Book 253, Page 1116.

TOGETHER with that certain easement granted Riveroak Timberland Investments, L.P. by that Deed of Easement dated November 5, 2001, recorded in Deed Book 236, Page 388.


PARCEL VI: Tax Map No. 242
Tract Number CC-023 (SPOTTWOOD-ADKINS)

ALL that certain tract or parcel of land, lying, being and situated in the County of Charles City, Virginia, containing ninety-eight and one-half (98 1/2) acres, more or less, and described as followings according to a plat recorded in the Clerk's Office of the Circuit Court of Charles City, Virginia, along with a deed from C.C. Wadhill, Clerk, to Edwin P. Rock, dated June 22, 1893, and recorded in the aforesaid Clerk's Office in Deed Book 16, at Page 90.
LESS AND EXCEPT that portion of the above described property previously conveyed to Jonathan C. Kinney, Trustee, by deed of record in Deed Book 253, Page 1116.

TOGETHER WITH that certain easement granted Riveroak Timberland Investments by that Deed of Easement dated November 5, 2001, recorded in Deed Book 236, Page 388.


PARCEL VII: Tax Map No. 13 96

ALL that certain tract or parcel of land situated in Harrison Magisterial District, Charles City County, Virginia, known as "Waymocks," containing 159.52 acres, more or less, as per plat of survey thereof made by R.H. Highland, Surveyor, dated January 2, 1951, and recorded in the Clerk's Office of the Circuit Court of Charles City County, Virginia in Plat Book 2, Page 127.

BEING the same real estate conveyed to Jonathan C. Kinney, Trustee, by deed from John Hancock Life Insurance Company, dated June 21, 2005, recorded July 8, 2005, in the Clerk's Office, Circuit Court, Charles City County, Virginia in Deed Book 256, Page 367.

PARCEL VIII: Tax Map Nos. 24 61, 24 6, 24 62, 13 47 and Part Tax Map No. 24 4
Montpelier Tract #1302 consisting of:

One:

ALL that certain tract or parcel of land, lying and being in Harrison Magisterial District, County of Charles City, State of Virginia, containing forth (40) acres, more or less and bounded as follows: On the East and South by the land formerly of L.J. Tremper, on the West by the land now or formerly of Mrs. M.E. Clark, and on the north by the land now or formerly of the estate of Spotswood Adkins.

Two:

ALL that certain tract of land lying and being in Charles City County, Virginia, and located as follows: One hundred and two and three-fourths (102 3/4) acres of land near Salem Church the same being a part of the tract known as Crews 35 acres lying on the West of the old road to Roxbury, and 67 3/4 acres lying to the east of said road. For a more particular description as to the metes and bounds of said land, reference is made to a plat of survey prepared by T. Crawford Redd and Bros., dated February 11, 1935, recorded in the Clerk's Office of the Circuit Court of Charles City County, Virginia in Book 1, Page 169.

Three:
ALL of that certain tract, piece or parcel of land lying in Harrison Magisterial District of Charles City County, Virginia, and bounded on the North by the Holbrook Farm; on the East by the lands now or formerly of Bill Webb, Folks, and others, on the South by the lands now or formerly of Folks, Poole, and others, and on the West by the lands now or formerly of L.B. Adams and the lands formerly owned by A.L. Franklin, and containing one hundred and sixty-one (161) acres, by survey recorded in the aforementioned Clerk's Office in Plat Book 1, Page 169.

Four:

ALL that certain tract or parcel of land lying and being in Harrison District, County of Charles City, State of Virginia and containing one hundred twenty-seven (127) acres, more or less, and bounded on the North by the Estate of Farrar and Thomas Gill, on the East by the land now or formerly of the estate of J. Gill and on the South by the said land now or formerly of Gill, the old public road leading from Roxbury to Westover, and the tract of land known as Crews and on the West by the land formerly of the Pearmans.

Five:

That certain tract of land located in Harrison District, in the County of Charles City and State of Virginia, known as "Rockdale" and Wardforkes," except eight acres thereof, four of which were conveyed to William M. Miles, Jr. by deed dated January 19, 1942, and recorded in Deed Book 31, Page 211, in the Clerk's Office of the Circuit Court of Charles City County, Virginia, and the other four of which were conveyed to Emmon J. Brachy by deed dated January 19, 1942, of record in said Clerk's Office in Deed Book 31, Page 213, and containing, after the deletion of said eight acres, 358 1/2 acres, more or less, and bounded as follows: on the North by the lands of Montpelier and on the east by the said Montpelier land, on the South by the public road leading from Marion Green's to Malvern Hill, and the eight acres above mentioned, and on the West by the lands now or formerly of Ratheims.

Six:

ALL of that certain tract or parcel of land lying and being in Harrison District, Charles City County, Virginia, known as Montpelier and containing 480 acres, more or less, bounded as follows: On the North by lands formerly owned by J.C. and W.F. Folkes; on the east by the old public road leading from Roxbury to Westover; on the South by the public road leading from the above named public road to Granville in the said County, and by the land formerly of W.E. Stagg; on the West by the land formerly of said Stagg. The said tract of land being the same as deed to W.W. Poole September 4, 1905. The graveyard being reserved to the use of Virginia C. Vadden and her heirs.

Seven:

ALL that certain piece or parcel of land lying and being in Harrison Magisterial District, Charles City County, Virginia, containing Twelve and one-tenth (12.1) acres, more or less, and bounded as follows: On the South by Salem Methodist Church, on the West by the land of J.Harvie Martin, on the North by the land of J.Harvie Martin, on the East by the land formerly owned by William E. Gill and by the public road leading from Barnettts to Roxbury.

LESS AND EXCEPT that certain parcel conveyed to Calvin Miles, et ux, by deed from Chesapeake Corporation recorded in Deed Book 36, Page 255, and;
LESS AND EXCEPT that certain parcel conveyed to the Commonwealth of Virginia by deed recorded in Deed Book 42, Page 120, and;

LESS AND EXCEPT that certain parcel conveyed to the Commonwealth of Virginia by deed recorded in Deed Book 57, Page 444, and;

LESS AND EXCEPT 450.53 acres lying on both sides of State Route 609 (Barnetts Road) depicted on that plat of survey dated March 10, 1999, revised September 1, 1999, made by Bay Design Group, signed by Gordon L. Jones, recorded in Plat Slide 322-324. Subject to the following perpetual and non-exclusive easements of record: (i) 50’ in widthleading from the 450.53 acres in a westerly direction across the Montpelier Tract to an existing Fire Trail which leads in a northerly direction from State Route 607, and a 50’ easement of right of way over and across the Fire Trail, 25’ on either side of the centerline of the Fire Trail and (ii) a 50’ easement of right of way from the reserved 450.53 acres to State Route 650, as depicted on said Plat Slide 322-324.

LESS AND EXCEPT that certain piece or parcel of land, lying and being in Harrison District, Charles City County, Virginia historically thought to contain 90 2/3 acres in aggregate, and depicted as "Wardforks" Tract containing 66 2/3 acres and "A Part of Rockdale" containing 24 acres on that "Map of Montpelier and Adjoining Tracts," dated February 11, 1935, made by T. Crawford Redd & Bros., Inc. Civil Engineers, recorded in the Clerk's Office, Circuit Court, Charles City County, Virginia in Plat Book 1, Page 169. The tract is disclosed to be that certain 88.76 acres "Wardforks Rockdale" tract on an unrecorded plat of survey made by R.B. Cartwright, C.L.S., dated December 28, 1973.

Eight: (Holbrooks Tract #1308)

ALL that certain tract or parcel of land known as Holbrooks containing 80 1/2 acres, more or less, conveyed in gross and not by the acre, situated in Harrison Magisterial District, Charles City County, Virginia, as more particularly shown on a certain plat of recorded in the Clerk's Office, Circuit Court, Charles City County, Virginia in Plat Book 1, Page 28.

BEING the same real estate conveyed to Jonathan C. Kinney, Trustee, by deed from Forestree GM LLC, dated December 9, 2013, recorded December 16, 2013, in the Clerk's Office, Circuit Court, Charles City County, Virginia as Instrument No. 130001039 and by Supplemental Deed by from Forestree GM LLC to Jonathan C. Kinney, Trustee, dated September 24, 2014, recorded in the Clerk's Office aforesaid on September 30, 2014, as Instrument No. 140000613.

PARCEL IX: Tax Map No. 24 3

ALL that certain piece or parcel of land, lying and being in Harrison Magisterial District, Charles City County, Virginia, located near State Route 607, and depicted as Parcel 3 of Section 24 of the 2003 Charles City County tax maps. The property is bounded as follows: on the West by other lands of Jonathan C. Kinney, Trustee; on the East by West Run; on the South by property now or formerly belonging to Continental Can Corporation; on the North by lands now or formerly belonging to Continental Can Corporation.
INCLUDING THEREWITH Parcel F on the plat recorded as Plat Slide 423 as conveyed by Deed of Boundary Adjustment and easement recorded January 26, 2005, in Deed Book 253, Page 1116.


PARCEL X: Tax Map No. 24 5

Tract Number CC-059 (Leon Adkins)

ALL that certain tract or parcel of land, being and situate in Charles City County, Virginia, containing 38.6 acres, more or less, and designated on a plat entitled "Continental Can Co., Inc., Leon Adkins Tract No. 549-20, District: Harrison, County" Charles City, State: Virginia." dated May 1960, made by C.E. Williams, C.L.S., a copy of which is recorded in Plat Book 3, Page 114, and more particularly described on said plat as follows:

BEGINNING at the southwest corner of the subject tract where it intersects with the property line of property now or formerly owned by Chesapeake Corporation of Virginia and property now or formerly known as Continental Can Company, Inc., Hardin Tract #8103; thence N. 1 degree 15' E. 3.75 chains to a point; thence N. 2 degrees 15' E. 5.86 chains to a point; thence N. 2 degrees 30' E. 4.62 chains to a point; thence S. 88 degrees 45' E. 13.63 chains to a point; thence S. 63 degrees 00' E. 20.22 chains to a point on West Run Branch; thence down West Run Branch as it meanders 5.88 chains to a point; thence leaving said branch in a westerly direction N. 87 degrees 45' W. 8.756 chains to a point; thence N. 84 degrees 30' W. 4.00 chains to a point; thence N. 89 degrees 45' W. 7.09 chains to a point; thence N. 87 degrees 00' W. 12.16 chains to a point, being the point of beginning; it being the same property conveyed to Leonidous Adkins by deed from Spotswood Adkins and Mary E. Adkins, his wife, dated February 14, 1917, recorded in the Clerk's Office of the Circuit Court of Charles City County, Virginia, in Deed Book 23, page 240.


PARCEL XI: Tax Map No. 23 26

ALL that certain tract or parcel of land, situated and being in Charles City County, Virginia, bounded on the east by the lands now or formerly of William E. Stagg and P.C. Buffin; on the south by the lands now or formerly of D.W. Haxall and Frederick W. Woodforks; on the west by lands now of formerly of O.A. Crenshaw and the main road leading to Charles City County Courthouse; and on the north by the road leading from Shirley to the LONG Bridges, containing 657 acres, more or less; and being the same real estate that was conveyed to William E. Stagg by Isadore P. Stratmatten and wife by deed dated January 6, 1904;
LESS AND EXCEPT (a) 25 acres of land known as “Castanna,” bounded on the south by the public road leading to Richmond, on the east by the land known as John A. Clark’s, on the north by William E. Stagg’s land, on the west by the land of Pearman and others; and, (b) a certain 310.15 acre tract of land conveyed to John C. Siewers by deed dated May 1, 1937. The foregoing real estate is more particularly shown on a plat of survey dated August 18, 1922, revised September 6, 1933, entitled “Map of Rathine and Rex Tract, Charles City County, Virginia, Property of E.A. Saunders, Jr, Estate,” prepared by T. Crawford Redd & Bro., Surveyors and Engineers, on which plat such real estate is designated as the southernmost half containing 310.15 acres.

BEING the same real estate by deed from Jonathan C. Kinney by deed from Charles City Project One, dated January 8, 2007, recorded January 30, 2007, in the Clerk’s Office, Circuit Court, Charles City County, Virginia as Instrument No. 07000098.

PARCEL XII: Tax Map No. 14 22

ALL that certain parcel of land in Harrison District, Charles City County, Virginia, being 10.00 acres, more or less, bounded on the North by land now or formerly of William E. Gill; East by “Worth Run”; South by land now or formerly of J.E. Fowlkes; and West by land now or formerly of Farrow and others, and known now or formerly as the “Ladd Tract” and designated as Parcel No. 14-22.

BEING the same real estate conveyed to Jonathan C. Kinney, Trustee, and Tranz Atlantic, LLC, a Virginia limited liability company, Trustee, by deed from James W. Elliott, Special Commissioner, dated July 7, 2014, recorded July 21, 2014, in the Clerk’s Office, Circuit Court, Charles City County, Virginia as Instrument No. 140000435.

PARCEL XIII: Tax Map No. 23 25

ALL that certain piece or parcel of land, lying and being in the Harrison District, Charles City County, Virginia, containing 2.20 acres and being so designated on a certain plat entitled “Map Showing 2.20 Acres of Land Situated on State Route No. 605 in Charles City County, Virginia”, dated April 28, 1986, made by M.E. Floyd, C.L.S., Virginia Surveys, a copy of which plat of survey is recorded in the Clerk’s Office of the Circuit Court for Charles City County, Virginia in Plat Records Slide 82. Reference is made to the plat for a more complete and accurate description of the property conveyed.

BEING the same description of property conveyed by KMI Continental Sawtimber, Inc. to Charles City Project One, by Deed dated May 27, 1986, recorded in the Clerk’s Office aforesaid in Deed Book 85, Page 633, in which Deed the Grantor reserved all the oil, gas and minerals beneath the surface of the property together with the right to remove the same.

PARCEL XIV: Tax Map No. 24 4 (remaining portion of 24-4)

SD-9302 (pt)

ALL that certain piece or parcel of land, lying and being in Harrison District, Charles City County, Virginia, historically thought to contain 90 2/3 acres in the aggregate, and depicted as “Wardforks” Tract containing 66
2/3 acres and "A Part of Rockdale" containing 24 acres on that "Map of Montpelier and Adjoining Tracts", dated February 11, 1935, made by T. Crawford Redd & Bro. Inc., Civil Engineers, recorded in the Clerk's Office, Circuit Court, Charles City County In Plat Book 1, Page 169. The tract is disclosed to be that certain 88.76 acres "Wardfords Rockdale" tract on an unrecorded plat of survey made by R. B. Cartwright, C.L.S. dated December 28, 1973.

BEING a portion of the property conveyed to the Grantor herein by Deed recorded in the Clerk's Office of Charles City County, Virginia, in Deed Book 216, Page 302.

PARCEL I (Tax Map No. 23 23), PARCEL IV (Tax Map No. 13 46), PARCEL V (Tax Map No. 24-1), PARCEL VI (Tax Map No. 24 2), PARCEL VIII and XIV (Tax Map Nos. 24 61 and 24 4), and PARCEL IX (Tax Map No. 24 3) herein are subject to the following easement of right of way, which was granted to John Hancock Life Insurance Company by Deed of Easement dated November 5, 2001, recorded In the Clerk's Office aforesaid in Deed Book 236, page 388: A perpetual, unobstructed, non-exclusive easement of right-of-way fifty (50) feet in width over and across the Montpelier Complex, as depicted on that plat of survey dated October 12, 2001, made by Bay Design Group, recorded in the Clerk's Office aforesaid as Plat Records Slide 369.

[Remainder of page intentionally left blank]
OWNERSHIP AND CONSENT AFFIDAVIT

This is to certify under penalty of perjury that the undersigned is/are the record owner(s) of the real property described on the attached Exhibit “A” (the “Real Property”), attached hereto and incorporated by reference, and hereby consents to the filing of the Special Use Permit application(s) for the Real Property, and declare under penalty of perjury that they have reviewed this Ownership and Consent Affidavit and the information furnished is true and correct.

Executed this 6th day of February 2018.

Signature: [Signature]
Print Name: Jonathan C. Kinney, Trustee

CERTIFICATE OF ACKNOWLEDGEMENT

STATE OF VIRGINIA
COUNTY OF Arlington

The foregoing instrument was acknowledged before me this 6th February 2018, by Jonathan Kinney, TR.

[Seal]

Notary Public

[Seal]

my commission expires May 31, 2019
OWNERSHIP AND CONSENT AFFIDAVIT

This is to certify under penalty of perjury that the undersigned is the record owner of a portion of the real property described on the attached Exhibit “A” (the “Real Property”), attached hereto and incorporated by reference, and hereby consents to the filing of the Special Use Permit application(s) for the Real Property, and declare under penalty of perjury that they have reviewed this Ownership and Consent Affidavit and the information furnished is true and correct.

Executed this 6th day of February, 2018.

TRANZ ATLANTIC, LLC

Signature: [Signature] Print Name: JONATHAN C. KINNEY

CERTIFICATE OF ACKNOWLEDGEMENT

COMMONWEALTH OF VIRGINIA
   ) to wit:
COUNTY OF ARLINGTON
   )

The foregoing instrument was acknowledged before me this 6th day of February, 2018, by JONATHAN C. KINNEY, Manager, Tranz Atlantic, LLC, a Virginia limited liability company, on behalf of the limited liability company.

[Signature] (Seal)
Notary Public

My commission expires May 31, 2019
My registration number is 180001
EXHIBIT A

LEGAL DESCRIPTION OF THE PROPERTY

PARCEL I: Tax Map No. 23 23

ALL that certain tract or parcel of land lying and being in Harrison Magisterial District, Charles City County, Virginia, being commonly known as the northern half of the "Rathine and Rex Tract," containing 305.78 acres, more or less, which said land is bounded on the northwest by Highway No. 106 (described as State Route 605 in prior instruments of record), on the east by the land formerly of Continental Forest Industries and the land formerly of Chesapeake Corporation, and on the south by the land formerly of Continental Forest Industries.

LESS AND EXCEPT 6.03 acres heretofore conveyed to the Commonwealth of Virginia for highway purposes by Lynwood W. Orange and Winnie B. Orange, his wife, by deed dated July 24, 1974, recorded September 12, 1974, Charles City County, Virginia, Circuit Court Clerk's Office in Deed Book 61, Page 155.

TOGETHER WITH Parcel A, C and D as shown on the Plat recorded at Plat Slide 423 as contained in the Deed of Boundary Adjustment and Easement recorded January 26, 2005, in Deed Book 253, Page 1116.

LESS AND EXCEPT Parcel B as shown on the above referenced Plat as was conveyed by the aforesaid Deed recorded in Deed Book 253, Page 1116.


PARCEL II: Tax Map No. 24-7
Tract CC-001 (HARDEN)

ALL that certain parcel or tract of land, lying, being and situate in Harrison Magisterial District, Charles City County, Virginia, and more particularly described as follows: Bounded on the east by Piping Tree Road (being the main road leading from Hardens to Montpelier); on the north by the tract of land now or formerly known as Rockdale, by property now or formerly owned by Richard Crane, the Johnsons and by land now or formerly owned by Spottwood Adkins; on the west by the tract of land now or formerly known as Rex Tract, now of formerly known as Rex Tract, now of formerly owned by Saunders Estate, and on the south by the lands now or formerly owned by George Charity, this said tract containing two hundred (200) acres, more or less, and being all of the tract now or formerly known as Hardens tract.

LESS AND EXCEPT that certain parcel of land containing 0.230 acres, more or less, conveyed to Charles City County by deed dated May 5, 1980, recorded August 8, 1980, in the Clerk's Office, Circuit Court, Charles City County, Virginia in Deed Book 72, Page 705.
LESS AND EXCEPT that portion of the property conveyed to the Commonwealth of Virginia for improvements to Route 607 by deed dated February 11, 2015, record in the Clerk's Office aforesaid as Instrument No. 150000411.


PARCEL III: Tax Map No. 23-7-1 and Tax Map No. 23-7-2
Tract Number CC-049 (Tyler #1 & #2 - P22)

ALL those tracts of land situate in Charles City County, Virginia, containing 61.6 acres, more or less, and 21.2 acres, more or less, of land respectively, and any improvements thereon and appurtenances thereto belonging, shown on a plat of survey made by C.E. Williams, C.L.S., dated January, 1960, entitled "Continental Can Company, Inc. - Layfield -Tyler #1 & 2 Tracts - No. 34-77L, 61.6 Acres - Tyler #1, 21.2 Acres - Tyler #2, 82.8 Acres - Total, Harrison District, Charles City County, Virginia," and recorded in Slide 176.

LESS AND EXCEPT that certain parcel of land containing 4.15 acres as conveyed to the Commonwealth of Virginia by deed dated April 30, 1976, recorded September 7, 1976, in the Clerk's Office, Circuit Court, Charles City County, Virginia in Deed Book 64, Page 515.

LESS AND EXCEPT that certain parcel of land containing 2.20 acres conveyed to Charles City Project One, dated May 27, 1986, recorded July 17, 1986, in the Clerk's Office aforesaid in Deed Book 85, Page 633.


PARCEL IV: Tax Map No. 13 46
Tract Number CC-056 (WRIGHT TISDALE)

ALL that certain tract or parcel of land, situated in Harrison Magisterial District, Charles City County, Virginia, containing 117.2 acres, more or less, and bounded and described as indicated on a plat thereof, made by Alan G. Taylor, C.L.S., dated October, 1962, recorded in Deed Book 45, Page 346, (Plat Book 3, Page 160).

TOGETHER WITH all of the interest of the grantor in and to that certain non-exclusive easement 30' in width granted by instrument recorded in Deed Book 45, Page 346 as the same was amended by instrument recorded in Deed Book 236, Page 384.
FURTHER TOGETHER WITH a perpetual, non-exclusive easement of right of way 50 feet in width as is more particularly described and granted in Deed of Easement of record in the aforesaid Clerk's Office in Deed Book 236, Page 384.

LESS AND EXCEPT that certain parcel of land containing 0.14 acres as conveyed to the Commonwealth of Virginia by deed dated May 20, 1970, recorded July 15, 1970, in the Clerk's Office, Circuit Court, Charles City County, Virginia in Deed Book 54, Page 310.


PARCEL V: Tax Map No. 24 1
Tract Number CC-014 (GILL)

ALL that certain piece or parcel of land lying and being in Harrison District, Charles City County, Virginia, historically said to contain one hundred (100) acres, more or less, being the northern part of the tract of land now or formerly known as "Buffins"; the property is described as 98 +/- acres per plat of survey dated September, 1951 to February, 1952, by W. G. Chappell, CLS, entitled "Map Showing A Tract Of Land Situated Harrison District Charles City County, Virginia Locally Known As The Gill or Buffins Tract Owned By And Surveyed For Continental Can Company, Inc.," and recorded in Slide 176.

LESS AND EXCEPT that portion of the above described property previously conveyed to Jonathan Kinney, Trustee, by deed of record in Deed Book 253, Page 1116, in Charles City County real estate records, but together with additional property conveyed to Riveroak by deed recorded in Deed Book 253, Page 1116.

TOGETHER with that certain easement granted Riveroak Timberland Investments, L.P. by that Deed of Easement dated November 5, 2001, recorded in Deed Book 236, Page 388.


PARCEL VI: Tax Map No. 24 2
Tract Number CC-023 (SPOTTWOOD-ADKINS)

ALL that certain tract or parcel of land, lying, being and situated in the County of Charles City, Virginia, containing ninety-eight and one-half (98 1/2) acres, more or less, and described as followings according to a plat recorded in the Clerk's Office of the Circuit Court of Charles City, Virginia, along with a deed from C.C. Waddill, Clerk, to Edwin P. Rock, dated June 22, 1893, and recorded in the aforesaid Clerk's Office in Deed Book 16, at Page 90.
LESS AND EXCEPT that portion of the above described property previously conveyed to Jonathan C. Kinney, Trustee, by deed of record in Deed Book 253, Page 1116.

TOGETHER WITH that certain easement granted Riverock Timberland Investments by that Deed of Easement dated November 5, 2001, recorded in Deed Book 236, Page 388.


PARCEL VII: Tax Map No. 13 96

ALL that certain tract or parcel of land situated in Harrison Magisterial District, Charles City County, Virginia, known as "Waymocks," containing 159.52 acres, more or less, as per plat of survey thereof made by R.H. Highland, Surveyor, dated January 2, 1951, and recorded in the Clerk's Office of the Circuit Court of Charles City County, Virginia in Plat Book 2, Page 127.

BEING the same real estate conveyed to Jonathan C. Kinney, Trustee, by deed from John Hancock Life Insurance Company, dated June 21, 2005, recorded July 8, 2005, in the Clerk's Office, Circuit Court, Charles City County, Virginia in Deed Book 256, Page 367.

PARCEL VIII: Tax Map Nos. 24 61, 24 6, 24 62, 13 47 and Part Tax Map No. 24 4
Montpelier Tract #1302 consisting of:

One:

ALL that certain tract or parcel of land, lying and being in Harrison Magisterial District, County of Charles City, State of Virginia, containing forth (40) acres, more or less and bounded as follows: On the East and South by the land formerly of L.J. Tremper, on the West by the land now or formerly of Mrs. M.E. Clark, and on the north by the land now or formerly of the estate of Spotswood Akins.

Two:

ALL that certain tract of land lying and being in Charles City County, Virginia, and located as follows: One hundred and two and three-fourths (102 3/4) acres of land near Salem Church the same being a part of the tract known as Crews 35 acres lying on the West of the old road to Roxbury, and 67 3/4 acres lying to the east of said road. For a more particular description as to the metes and bounds of said land, reference is made to a plat of survey prepared by T. Crawford Redd and Bros., dated February 11, 1935, recorded in the Clerk's Office of the Circuit Court of Charles City County, Virginia in Book 1, Page 169.

Three:
ALL of that certain tract, piece or parcel of land lying in Harrison Magisterial District of Charles City County, Virginia, and bounded on the North by the Holbrook Farm; on the East by the lands now or formerly of Bill Webb, Folks, and others, on the South by the lands now or formerly of Folks, Poole, and others, and on the West by the lands now or formerly of L.B. Adams and the lands formerly owned by A.L. Franklin, and containing one hundred and sixty-one (161) acres, by survey recorded in the aforementioned Clerk's Office in Plat Book 1, Page 169.

Four:

ALL that certain tract or parcel of land lying and being in Harrison District, County of Charles City, State of Virginia and containing one hundred twenty-seven (127) acres, more or less, and bounded on the North by the Estate of Farrar and Thomas Gill, on the East by the land now or formerly of the estate of J. Gill and on the South by the said land now or formerly of Gill, the old public road leading from Roxbury to Westover, and the tract of land known as Crews and on the West by the land formerly of the Pearmans.

Five:

That certain tract of land located in Harrison District, in the County of Charles City and State of Virginia, known as "Rockdale" and Wardforkes," except eight acres thereof, four of which were conveyed to William M. Miles, Jr. by deed dated January 19, 1942, and recorded in Deed Book 31, Page 211, in the Clerk's Office of the Circuit Court of Charles City County, Virginia, and the other four of which were conveyed to Emma J. Bradby by deed dated January 19, 1942, of record in said Clerk's Office in Deed Book 31, Page 213, and containing, after the deletion of said eight acres, 358 1/2 acres, more or less, and bounded as follows: on the North by the lands of Montpelier and on the east by the said Montpelier land, on the South by the public road leading from Marion Green's to Malvern Hill, and the eight acres above mentioned, and on the West by the lands now or formerly of Ratheims.

Six:

ALL of that certain tract or parcel of land lying and being in Harrison District, Charles City County, Virginia, known as Montpelier and containing 480 acres, more or less, bounded as follow: On the North by lands formerly owned by J.C. and W. F. Folkes; on the east by the old public road leading from Roxbury to Westover; on the South by the public road leading from the above named public road to Granville in the said County, and by the land formerly of W.E. Stagg; on the West by the land formerly of said Stagg. The said tract of land being the same as deed to W.W. Poole September 4, 1905. The graveyard being reserved to the use of Virginia C. Vadden and her heirs.

Seven:

ALL that certain piece or parcel of land lying and being in Harrison Magisterial District, Charles City County, Virginia, containing Twelve and one-tenth (12.1) acres, more or less, and bounded as follow: On the South by Salem Methodist Church, on the West by the land of J. Harvie Martin, on the North by the land of J. Harvie Martin, on the East by the land formerly owned by William E. Gill and by the public road leading from Barnett to Roxbury.

LESS AND EXCEPT that certain parcel conveyed to Calvin Miles, et ux, by deed from Chesapeake Corporation recorded in Deed Book 36, Page 255, and;
LESS AND EXCEPT that certain parcel conveyed to the Commonwealth of Virginia by deed recorded in Deed Book 42, Page 120, and;

LESS AND EXCEPT that certain parcel conveyed to the Commonwealth of Virginia by deed recorded in Deed Book 57, Page 444, and;

LESS AND EXCEPT 450.53 acres lying on both sides of State Route 609 (Barnetts Road) depicted on that plat of survey dated March 10, 1999, revised September 1, 1999, made by Bay Design Group, signed by Gordon L. Jones, recorded in Plat Slide 322-324. Subject to the following perpetual and non-exclusive easements of record: (i) 50' in width leading from the 450.53 acres in a westerly direction across the Montpelier Tract to an existing Fire Trail which leads in a northerly direction from State Route 607, and a 50' easement of right of way over and across the Fire Trail, 25' on either side of the centerline of the Fire Trail and (ii) a 50' easement of right of way from the reserved 450.53 acres to State Route 650, as depicted on said Plat Slide 322-324.

LESS AND EXCEPT that certain piece or parcel of land, lying and being in Harrison District, Charles City County, Virginia historically thought to contain 90 2/3 acres in aggregate, and depicted as "Wardforks" Tract containing 66 2/3 acres and "A Part of Rockdale" containing 24 acres on that "Map of Montpelier and Adjoining Tracts," dated February 11, 1935, made by T. Crawford Redd & Bros., Inc. Civil Engineers, recorded in the Clerk's Office, Circuit Court, Charles City County, Virginia in Plat Book 1, Page 169. The tract is disclosed to be that certain 88.76 acres "Wardforks Rockdale" tract on an unrecorded plat of survey made by R.B. Cartwright, C.L.S., dated December 28, 1973.

Eight: (Holbrooks Tract #1308)

ALL that certain tract or parcel of land known as Holbrooks containing 80 1/2 acres, more or less, conveyed in gross and not by the acre, situated in Harrison Magisterial District, Charles City County, Virginia, as more particularly shown on a certain plat of recorded in the Clerk's Office, Circuit Court, Charles City County, Virginia in Plat Book 1, Page 28.

BEING the same real estate conveyed to Jonathan C. Kinney, Trustee, by deed from Forestree GM LLC, dated December 9, 2013, recorded December 16, 2013, in the Clerk's Office, Circuit Court, Charles City County, Virginia as Instrument No. 130001039 and by Supplemental Deed by from Forestree GM LLC to Jonathan C. Kinney, Trustee, dated September 24, 2014, recorded in the Clerk's Office aforesaid on September 30, 2014, as Instrument No. 140000613.

PARCEL IX: Tax Map No. 24 3

ALL that certain piece or parcel of land, lying and being in Harrison Magisterial District, Charles City County, Virginia, located near State Route 607, and depicted as Parcel 3 of Section 24 of the 2003 Charles City County tax maps. The property is bounded as follows: on the West by other lands of Jonathan C. Kinney, Trustee; on the East by West Run; on the South by property now or formerly belonging to Continental Can Corporation; on the North by lands now or formerly belonging to Continental Can Corporation.
INCLUDING THEREWITH Parcel F on the plat recorded as Plat Slide 423 as conveyed by Deed of Boundary Adjustment and easement recorded January 26, 2005, in Deed Book 253, Page 1116.


PARCEL X: Tax Map No. 24 5

Tract Number CC-059 (Leon Adkins)

ALL that certain tract or parcel of land, being and situate in Charles City County, Virginia, containing 38.6 acres, more or less, and designated on a plat entitled "Continental Can Co., Inc., Leon Adkins Tract No. 549-20, District: Harrison, County" Charles City, State: Virginia." dated May 1960, made by C.E. Williams, C.I.S., a copy of which is recorded in Plat Book 3, Page 114, and more particularly described on said plat as follows:

BEGINNING at the southwest corner of the subject tract where it intersects with the property line of property now or formerly owned by Chesapeake Corporation of Virginia and property now or formerly known as Continental Can Company, Inc., Hardin Tract #8103; thence N. 1 degree 15' E. 3.75 chains to a point; thence N. 2 degrees 15' E. 5.86 chains to a point; thence N. 2 degrees 30' E. 4.62 chains to a point; thence S. 88 degrees 45' E. 13.63 chains to a point; thence S. 63 degrees 00' E. 20.22 chains to a point on West Run Branch; thence down West Run Branch as it meanders 5.88 chains to a point; thence leaving said branch in a westerly direction N. 87 degrees 45' W. 8.756 chains to a point; thence N. 84 degrees 30' W. 4.00 chains to a point; thence N. 89 degrees 45' W. 7.09 chains to a point; thence N. 87 degrees 00' W. 12.16 chains to a point, being the point of beginning; it being the same property conveyed to Leonidous Adkins by deed from Spotswood Adkins and Mary E. Ackins, his wife, dated February 14, 1917, recorded in the Clerk's Office of the Circuit Court of Charles City County, Virginia, in Deed Book 23, page 240.


PARCEL XI: Tax Map No. 23 26

ALL that certain tract or parcel of land, situated and being in Charles City County, Virginia, bounded on the east by the lands now or formerly of William E. Stagg and P.C. Buffin; on the south by the lands now or formerly of D.W. Haxall and Frederick W. Woodforks; on the west by lands now of formerly of O.A. Crenshaw and the main road leading to Charles City County Courthouse; and on the north by the road leading from Shirley to the LONG Bridges, containing 657 acres, more or less; and being the same real estate that was conveyed to William E. Stagg by Isadore P. Strattmatter and wife by deed dated January 6, 1904;

First Amendment to Purchase Option Agreement (SPH_Kinney)  Page 9 of 11
LESS AND EXCEPT (a) 25 acres of land known as “Castanna,” bounded on the south by the public road leading to Richmond, on the east by the land known as John A. Clark’s, on the north by William E. Stagg’s land, on the west by the land of Pearman and others; and, (b) a certain 310.15 acre tract of land conveyed to John C. Siewers by deed dated May 1, 1937. The foregoing real estate is more particularly shown on a plat of survey dated August 18, 1922, revised September 6, 1933, entitled “Map of Rathine and Rex Tract, Charles City County, Virginia, Property of E.A. Saunders, Jr. Estate,” prepared by T. Crawford Redd & Bro., Surveyors and Engineers, on which plat such real estate is designated as the southernmost half containing 310.15 acres.

BEING the same real estate by deed from Jonathan C. Kinney by deed from Charles City Project One, dated January 8, 2007, recorded January 30, 2007, in the Clerk’s Office, Circuit Court, Charles City County, Virginia as Instrument No. 07000098.

PARCEL XII: Tax Map No. 14 22

ALL that certain parcel of land in Harrison District, Charles City County, Virginia, being 10.00 acres, more or less, bounded on the North by land now or formerly of William E. Gill; East by “Worth Run”; South by land now or formerly of J.E. Fowlkes; and West by land now or formerly of Farrow and others, and known now or formerly as the “Ladd Tract” and designated as Parcel No. 14-22.

BEING the same real estate conveyed to Jonathan C. Kinney, Trustee, and Tranz Atlantic, LLC, a Virginia limited liability company, Trustee, by deed from James W. Elliott, Special Commissioner, dated July 7, 2014, recorded July 21, 2014, in the Clerk’s Office, Circuit Court, Charles City County, Virginia as Instrument No. 140000435.

PARCEL XIII: Tax Map No. 23 25

ALL that certain piece or parcel of land, lying and being in the Harrison District, Charles City County, Virginia, containing 2.20 acres and being so designated on a certain plat entitled “Map Showing 2.20 Acres of Land Situated on State Route No. 605 in Charles City County, Virginia”, dated April 28, 1986, made by M.E. Floyd, C.L.S., Virginia Surveys, a copy of which plat of survey is recorded in the Clerk’s Office of the Circuit Court for Charles City County, Virginia in Plat Records Slide 82. Reference is made to the plat for a more complete and accurate description of the property conveyed.

BEING the same description of property conveyed by KMI Continental Sawtimber, Inc. to Charles City Project One, by Deed dated May 27, 1986, recorded in the Clerk’s Office aforesaid in Deed Book 85, Page 633, in which Deed the Grantor reserved all the oil, gas and minerals beneath the surface of the property together with the right to remove the same.

PARCEL XIV: Tax Map No. 24 4 (remaining portion of 24-4)

SD-9302 (pt)

ALL that certain piece or parcel of land, lying and being in Harrison District, Charles City County, Virginia, historically thought to contain 90 2/3 acres in the aggregate, and depicted as “Wardforks’ Tract containing 66...
2/3 acres and "A Part of Rockdale" containing 24 acres on that "Map of 'Montpelier' and Adjoining Tracts", dated February 11, 1935, made by T. Crawford Redd & Bro. Inc., Civil Engineers, recorded in the Clerk's Office, Circuit Court, Charles City County In Plat Book 1, Page 169. The tract is disclosed to be that certain 88.76 acres "Wardforks Rockdale" tract on an unrecorded plat of survey made by R. B. Cartwright, C.L.S. dated December 28, 1973.

BEING a portion of the property conveyed to the Grantor herein by Deed recorded in the Clerk's Office of Charles City County, Virginia, in Deed Book 216, Page 302.

PARCEL I (Tax Map No. 23 23), PARCEL IV (Tax Map No. 13 46), PARCEL V (Tax Map No. 24-1), PARCEL VI (Tax Map No. 24 2), PARCEL VIII and XIV (Tax Map Nos. 24 61 and 24 4), and PARCEL IX (Tax Map No. 24 3) herein are subject to the following easement of right of way, which was granted to John Hancock Life Insurance Company by Deed of Easement dated November 5, 2001, recorded In the Clerk's Office aforesaid in Deed Book 236, page 388: A perpetual, unobstructed, non-exclusive easement of right-of-way fifty (50) feet in width over and across the Montpelier Complex, as depicted on that plat of survey dated October 12, 2001, made by Bay Design Group, recorded in the Clerk's Office aforesaid as Plat Records Slide 369.

[Remainder of page intentionally left blank]
Exhibit C
Project Description

1.0 INTRODUCTION

The Special Use Permit Application was prepared for sPower Development Company, LLC’s (sPower, or the Applicant) proposed Keydet Solar A project (the Project) located in western Charles City County, Virginia. The following Project Description provides the general information that is required per Charles City County’s Special Use Permit Application.

The Project is part of a composite of two separate projects proposed is Charles City County, Virginia (refer to Figure 1, Keydet Solar Project Sites).

1.1 The Project

The Project consists of a 300 megawatt (MW) solar energy facility located on an approximate 2,114-acre site. The Project will utilize photovoltaic (PV) panels installed on single-axis trackers. Electricity will be delivered via transmission lines that will run from the Project to the nearby Chickahominny Substation owned by the Virginia Electric and Power Company.

The Project would benefit Charles City County and the State of Virginia by:

- Meeting the increasing demand for electricity generated from clean, renewable technology;
- Diversifying the State’s energy portfolio
- Reducing greenhouse gas emissions;
- Creating “green” jobs within the State;
- Stimulating the local economy during construction and operation of the Project

sPower will use best management practices and coordinate with all relevant agencies to minimize and mitigate impacts to the environment and local community. All project facilities will comply with the Charles City County zoning ordinance and development standards in accordance with Charles City County’s “Suggested Guidelines and Standards for Solar Energy Facility SUP”.

2.0 PROJECT DESCRIPTION

The Project would consist of a 300 MW solar energy facility. PV modules will be mounted on racking systems supported by a pile-driven foundation design. The racking structure is expected to be a single-axis tracking configuration with north-south trending rows that will track the sun from east to west over the course of the day.

PV Modules will be electrically connected into strings that will be connected to combiner boxes located throughout the solar energy facility. The output power cables from the combiner boxes will be consolidated and feed the direct current (DC) electricity to inverters which convert the DC to alternating current (AC).
Each inverter will be fully enclosed, pad mounted, and stand approximately 7 feet in height. The AC output from the inverters will be routed through an AC collection system and consolidated within the system switchgear. The final output from the solar energy facility will be processed through a step-up transformer to match the interconnection voltage.

The Project will be designed with a comprehensive Supervisory Control and Data Acquisition ("SCADA") system for remote monitoring of facility operations and/or remote control of critical components. Within the Project Site, the fiber optic or other cabling required for the monitoring system will be installed throughout the solar energy facility leading to centrally located (or series of appropriately located) SCADA system cabinets. The telecommunications connections to the SCADA system cabinets may be wireless or hard wired.

The Project will include a meteorological ("met") data collection system. The met station will have the following weather sensors: a pyranometer for measuring solar irradiance, a thermometer to measure air temperature, a barometric pressure sensor to measure atmospheric pressure, and two wind sensors to measure speed and direction. These sensors will be connected to a data logger to compile the data for transmission to the Data Collection Center.

All energy will be routed to Project switchgears, located on the northwestern portion of the Project Site, at which point all energy from the Project will be stepped up to 230 kilovolts (kV). The primary switchgears include the main circuit breakers and utility metering equipment, and would be enclosed separately and pad mounted together with the generator step-up (GSU) transformers. The Project will interconnect at the Chickahominy Substation at 230 kV.

An operations and maintenance (O&M) storage facility will be located on-site to store maintenance equipment and vehicles, safety equipment, replacement components, and other items deemed necessary for Project operations.

To summarize, the Project would consist of the following primary components:

- PV modules
- Single-axis tracker system
- Electrical inverters and transformers
- Electrical AC collection system, including switchgears
- Combiner boxes
- Electrical disconnects
- Data monitoring systems
- Transmission lines
- Meteorological station
- Telecommunications equipment
- O&M storage facility
- Access roads
- Security fencing, lighting, and cameras
2.1 Project Location

The Project will be located on approximately 2,114 acres of rural, cleared forest and timber land in western Charles City County, Virginia. The Project Site is surrounded by a mix of single-family residences, limited agriculture, forested lands, and a sand and gravel facility owned and operated by Aggregate Industries.

All 17 parcels within the Project Site are zoned Agriculture (A-1) and consist of the following:

<table>
<thead>
<tr>
<th>Parcel ID</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>23-25</td>
<td>2.2</td>
</tr>
<tr>
<td>23-7-1</td>
<td>61.6</td>
</tr>
<tr>
<td>23-7-2</td>
<td>16.95</td>
</tr>
<tr>
<td>23-23</td>
<td>315.01</td>
</tr>
<tr>
<td>23-26</td>
<td>310.5</td>
</tr>
<tr>
<td>24-1</td>
<td>91.14</td>
</tr>
<tr>
<td>24-2</td>
<td>91.92</td>
</tr>
<tr>
<td>24-3</td>
<td>22.09</td>
</tr>
<tr>
<td>24-4</td>
<td>268.27</td>
</tr>
<tr>
<td>24-5</td>
<td>38.6</td>
</tr>
<tr>
<td>24-6</td>
<td>40.0</td>
</tr>
<tr>
<td>24-7</td>
<td>198.62</td>
</tr>
<tr>
<td>24-61</td>
<td>288</td>
</tr>
<tr>
<td>24-62</td>
<td>80.5</td>
</tr>
<tr>
<td>13-46</td>
<td>117.2</td>
</tr>
<tr>
<td>13-47</td>
<td>161.0</td>
</tr>
<tr>
<td>14-22</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2,113.6</strong></td>
</tr>
</tbody>
</table>

The Project Site is ideal for a solar energy facility due to its topography, large tracts of land used for silviculture, and close proximity to the Chickahominy Substation. The general location of the Project Site is also ideal in that it borders an industrial facility (Aggregate Industries) to the east, and four State Routes to the west (State Route 106), the south (State Route 607), the north (State Route 650) and the east (State Route 609). The Virginia Department of Transportation (VDOT) designated State Route 106 as an industrial corridor to provide access from industrial areas inside and outside the County.

As described in further detail in Section 4.0 of this document, the Project would produce electricity passively during the life of Project operations and not disrupt day-to-day living of nearby residences. The Project would not increase traffic in the region during operations as the Project would employ five (5) to ten (10) long-term employees. The Project would have a minimum 100-foot setback from adjacent properties in addition to a landscape buffer, thereby shielding view of the Project from nearby residences. Wetland habitats and undeveloped areas within the Project Site would be preserved as open space with naturally growing vegetation. Additionally, the Project
would be developed in accordance with Charles City County’s Zoning Ordinance and “Suggested Guidelines and Standards for Solar Energy Facilities SUP” document.

2.2 Site Access

Primary access to the Project Site will be provided via Wayside Road (State Route 607) located to the south of the Project Site, Roxbury Road (State Route 106) located to the west of the Project Site, Cattail Road (State Route 650) located to the north of the Project Site, and/or Barnetts Road (State Route 609) located to the east of the Project Site. Site access will be improved and maintained to the satisfaction of the Charles City County Fire Department. Additionally, all site access locations and driveway entrances will be coordinated with Charles City County and VDOT.

Refer to the Exhibit D, Plot Plan for a depiction of potential site access locations. All site locations are subject to final design.

2.2 Planning and Zoning

2.2.1 Zoning District and Ordinance

All parcels within the Project boundary are zoned Agriculture (A-1). Per the Charles City County Zoning Ordinance, solar energy facilities are permitted as a special use in A-1 zoning districts. Therefore, the Project will adhere to the requirements of Section 5 of the Charles City County Zoning Ordinance. Additionally, the Project will comply with the requirements and development standards outlined in Charles City County’s “Suggested Guidelines and Standards for Solar Energy Facility SUP”.

2.2.2 Special Use Application

Per Section 26 of the Charles City County Zoning Ordinance, sPower is submitting a Special Use Permit Application for the Project. The Special Use Permit Application includes the following:

- Application Form
- Exhibit A, Legal Description
- Exhibit B, Ownership and Consent Affidavit
- Exhibit C, Project Description
- Exhibit D, Plot Plan
- Application Fee

Architectural renderings are not included in the Special Use Permit Application as no buildings are proposed for the Project.

2.2.3 Economic Development Strategic Plan

Charles City County adopted its Economic Development Strategic Plan in 2015 to define future economic opportunities and chart a path to enhance the tax base, provide jobs and small business opportunities, and bring the community together to work toward and shared vision. Electric power
generation such as utility-scale solar was identified in the Plan as a viable economic option due to the County’s availability of low cost, remote land and access to the power grid (Chickahominy Substation). The Project would be consistent with the Plan’s initiatives in that it’s a utility-scale solar project that would enhance the County’s tax base, provide local jobs, create a direct economic stimulation to local businesses, and utilize existing energy infrastructure at the Chickahominy Substation.

2.2.4 Environmental Permitting

In addition to the requirements above, sPower has contracted with Kimley-Horn and Associates, Inc. to conduct Species and Habitat Surveys, Wetlands Surveys, and Cultural and Historic Resources Surveys at the Project Site. Surveys are being coordinated with Virginia’s Department of Environmental Quality (DEQ), Marine Resources Commission (VMRC), Department of Historic Resources (DHR), and the United States Army Corps of Engineers. Surveys will commence in February 2018 and are anticipated to be completed by April 2018. Prior to construction of the Project, all required permits, reports, and technical analyses will receive final approval from their respective governing agencies.

2.2.5 State Corporation Commission

sPower will be submitting an application to the State Corporation Commission (SCC) for a Certificate of Public Convenience and Necessity (CPCN) pursuant to § 56-46.1 and 56-580 D of the Code of Virginia and 20 VAC 5-302, for construction and operation of the Project. sPower anticipates submitting the application in April 2018 and receiving approval of the CPCN in December 2018.

3.0 CONSTRUCTION

Project construction would consist of three major phases: (1) site preparation; (2) PV system installation; and (3) testing. sPower anticipates close collaboration with Charles City County during the permitting process to identify and manage environmental conditions and design criteria specific to the Project. Through the permitting process, sPower will implement all required mitigation measures and Best Management Practices (BMPs) as determined by Charles City County and regulatory agencies.

Construction could be initiated as early as January 2019, with a duration of approximately 12 to 18 months.

3.1 Site Preparation

Construction of the Project would begin with initial clearing and grading (if required) of the staging areas. Access to the Project Site would be improved to appropriate construction standards. The staging areas would typically include temporary construction trailers, worker parking, truck loading and unloading facilities, and an area for assembly. Road corridors would be surveyed, cleared, and graded to bring equipment, materials, and workers to the areas under construction. Buried electrical lines, PV array locations, and the locations of other facilities may be flagged and
stated to guide construction activities. BMPs for stormwater and erosion control would be installed during the site preparation phase and prior to significant grading activities.

3.2 PV System Installation

PV system installation will include earthwork, grading, and erosion control, as well as erection of the PV modules, supports, and associated electrical equipment. System installation will begin with teams installing the mounting and steel pier support structures. The exact design will be finalized pending specific soil conditions, but will likely include pneumatically driven H-pile steel beams attached to a tracker racking system. This will be followed by panel installation and electrical work.

Concrete may be required for the footings, foundations, and will be required for pads for the inverters and transformers. Concrete will be produced at an off-site location by a local provider and transported to the Project Site by truck. Final concrete specifications will be determined during detailed design engineering and will meet applicable building codes.

The PV modules require a moderately flat surface for installation. Some earthwork, including grading, fill, compaction, and erosion control cultivation may be required to accommodate the placement of PV arrays, foundations or footings, access roads, and drainage features. A Virginia Pollutant Discharge Elimination System (VPDES) permit will be obtained by sPower. Construction of the PV arrays will include installation of support beams, module rail assemblies, PV modules, inverters, transformers, and buried electrical cables.

Wastes that will be generated during construction may include the following: cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spools. sPower does not expect to generate hazardous waste during construction of the proposed Project. However, field equipment used during construction will contain various hazardous materials such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles.

3.3 Construction Workforce

Construction could be initiated as early as January 2019, with a duration of approximately 12 to 18 months. The on-site workforce will consist of laborers, various skilled trades, supervisory personnel, support personnel, and construction management personnel. Construction will generally occur during daylight hours, Monday through Friday. Construction activities will be conducted consistent with Charles City County regulations regarding hours of construction.

The Project (including Keydet Solar B) will generate an estimated 500 new jobs during the construction phase and will provide approximately five (5) to ten (10) full time positions over the life of the facility for O&M activities. sPower and its Engineering, Procurement, and Construction (EPC) contractor intend to host local career fairs to recruit a local workforce for the Project to the extent possible.
3.4 Emergency and Shutdown Procedures

To ensure the safety of all employees working on the Project during construction, sPower will develop and implement an Emergency Response Plan for the Project in accordance with Code of Federal Regulation 1910.38 established by the Occupational Safety and Health Administration (OSHA). Key personnel will be designated to train all employees working on the Project, and will be responsible for administering emergency and shutdown procedures in the event of an emergency. Emergency and shutdown procedures will be clearly displayed in all construction trailers, along with contact information for emergency service providers and treatment facilities. Appropriate warning signage will be placed on all towers, electrical equipment, and Project Site ingress and egress points. Prior to construction, sPower will notify all emergency service providers of construction activities occurring at the Project Site and inform them of all emergency and shutdown procedures, including who needs to be contacted in case of an emergency.

sPower will coordinate its development of the Emergency Response Plan with the Charles City County Fire Department to ensure satisfactory safety measures are in place in the event of a wildfire. Safety measures shall include fire suppression methods that can be immediately deployed during both construction and operation of the Project. A water tank will be constructed on the Project Site to supply water to emergency service providers and regularly maintained with the guidance of the Charles City County Fire Department.

Additional instructions and/or emergency training will be provided to Charles City County emergency services serving the Project Site to the satisfaction of Charles City County.

3.5 Transportation

Equipment, permanent materials, and commodities for the Project will be transported to the Project Site via rail and state and/or interstate highways. Heavy hauls will be shipped via rail to nearest active railroad spur for offloading and transported by truck to the Project Site. Heavy haul trucks with multiple axles will be employed to distribute loads, as required. All equipment and material deliveries will utilize the Project Site access.

Truck deliveries of equipment and materials will occur beginning with the initial construction notice to proceed and continuing through the duration of the Project construction process. Initial truck deliveries will include heavy haul trucks for importing panels, project materials, followed by concrete trucks for installation of the solar field and major foundations, and deliveries of reinforcing steel. Electrical cabling and piping materials for buried piping will be delivered to the Project Site early in the construction period corresponding to approximately the time frame for foundation installation. Deliveries of large major equipment will commence at about midpoint of the construction period.

3.6 Parking and Staging Areas

sPower will ensure adequate parking is provided for construction workers at the Project Site. In addition to parking, the Project will require a temporary staging area for storing materials, assembling components, refueling equipment, and installing construction trailers. Parking and
3.7 Waste and Recycling

Construction waste would be generated from installation of the solar arrays and related facilities. Construction waste generation is expected to be minimal and consist of mostly recyclable materials such as cardboard, steel, and electrical wiring. sPower’s EPC contractor that will be responsible for construction of the Project will carefully disassemble and recycle shipping containers and solar panel packaging to minimize solid waste impacts. The EPC contractor will contract with a waste and recycling service provider to ensure all waste generated from construction of the Project is disposed of in accordance with federal and State regulations. The EPC contractor will store, collect, and dispose of solid waste in such a manner as to prevent fire and health hazards, rodent harborage, insect breeding, accidents, and odor. The EPC contractor will ensure that no littering on the Project Site or neighboring properties will occur during construction.

3.8 Sanitation Services

No wastewater facilities exist at the Project Site and no such facilities would be constructed for the Project. Portable restroom facilities would be provided and maintained by sPower’s EPC contractor during construction.

3.9 Water Supply

It is anticipated that a 300 MW project on 2,114 acres would use approximately 570 acre-feet of water during construction. Prior to initiation of construction, sPower will secure water rights from local sources to the approval of the Charles City County. It is anticipated that water will be supplied from newly constructed on-site wells. Water will primarily be used for dust control on unpaved roads, and will be applied via on-site water trucks. Additionally, as stated above, water tanks will be constructed on the Project Site to supply water to emergency service providers and regularly maintained with the guidance of the Charles City County Fire Department.

3.10 Site Stabilization

Upon completion of the Project, sPower will stabilize the Project Site through use of a native seed mix to the satisfaction of Charles City County. Furthermore, site stabilization will be maintained by sPower operations and maintenance staff throughout the life of the Project to the specifications of Charles City County. Site stabilization with a native seed mix will prevent erosion at the Project Site, while reestablishing native pollinators at the Project Site once construction is complete.

4.0 OPERATIONS AND MAINTENANCE

Upon commissioning, the Project would enter the operational phase. For the duration of the operational phase, the Project would be operated remotely and monitored by on-site staff for security and maintenance purposes. As the Project’s PV arrays produce electricity passively with minimal moving parts, maintenance requirements would be limited. Any required planned
maintenance would be scheduled to avoid peak load periods, and unplanned maintenance would be typically responded to as needed depending on the event. An inventory of spare components would be readily available.

Other operational details are summarized in the following sections.

4.1 Operations

sPower will ensure consistent and effective facility operations by:

- Responding to automated alarms based on monitored data, including actual versus expected tolerances for system output and other key performance metrics;
- Communicating with customers, transmission system operators and other entities involved in facility operations; and
- Designating a site supervisor to monitor and implement emergency and normal shutdown procedures.

4.2 Maintenance

Project maintenance performed on the site would consist of equipment inspection and replacement. Maintenance would occur during daylight hours, when possible. However, maintenance activities on the PV modules and DC systems would be typically performed at night. Maintenance program elements include:

- Managing a group of prequalified maintenance and repair firms who can meet the O&M needs of the facility throughout its life;
- Implementing a responsive, optimized cleaning schedule;
- Responding to plant emergencies and failures in a timely manner;
- Maintaining an inventory of spare parts to ensure timely repairs and consistent plant output;
- Maintaining a log to effectively record and track all maintenance problems; and
- Performing maintenance on the site as required to clear obstructive ground cover.

4.3 Remote Monitoring of the Project

The Project will be monitored 365 days a year from a remote location utilizing a Supervisory Control and Data Acquisition (SCADA) system. Safe, effective and efficient operation of the Project is dependent on the operator receiving accurate information on all environmental measurements which affect production. These measurements include solar irradiation, ambient temperature, back of module temperature, and wind speed. These environmental characteristics are reported by various sensors—pyranometers for irradiance, thermometers for temperatures, and anemometers for wind speed. Other characteristics of the Project are also reported in real time such as current production, voltage, amperage, power quality, and the status of all circuit protection devices. Circuit protection devices include the ability to report the status of their protective relays continuously as are the meters which report the electrical characteristics of the Project.
Signals from all sensors, meters, and circuit protection devices are accumulated into one or more data loggers which report via secure internet connections to sPower’s monitoring provider. The software that comprises the monitoring system is set up to send alarms when one or more conditions arise that compromise the safe and efficient operation of the plant. sPower has operators on duty in its control center during all hours when production is expected. If an emergency should arise in the off hours, personnel are assigned to take “on-call” messages in the case of emergencies.

4.4 Emergency and Shutdown Procedures

As stated above, sPower will develop and implement an Emergency Response Plan for the Project. All employees working on the Project during operations will be trained in emergency and shutdown procedures. Signs will be clearly marked at the Project Site for emergency vehicle ingress and egress. sPower will facilitate training for emergency service providers related to the specific hazards of the Project.

4.5 Transportation

The Project will primarily be operated remotely and monitored by on-site staff for security and maintenance purposes. Therefore, transportation to and from the Project Site will be minimal and would not adversely affect existing traffic conditions. As stated above, signs will be clearly marked at the Project Site in the event that emergency vehicles need to access the Project Site. The paved driveways providing access to the Project Site and the unpaved internal road system will be maintained as needed during the life of the Project.

4.6 Water Supply

During operation of the Project, minimal water would be used for solar panel washing on an annual basis and periodically for landscaping. It is estimated that approximately 1 to 2 acre-feet of water per year would be needed during operations. It is anticipated that water will be supplied from newly constructed on-site wells or trucked in from a local provider.

4.7 Waste and Recycling

Waste is not expected to be generated in significant quantity during operation of the Project.

4.8 Operational Noise

Solar energy facilities generate minimal noise during operations. Primary sources of operational noise would include the inverters and solar tracker system, and would be limited to daytime hours when the Project is generating electricity. Inverters and the solar tracker system would be located far enough from the property line so as not to increase ambient noise at adjacent residences.

4.9 Light and Glare

The Project would include inward facing, low-level motion detector security lighting at ingress and egress points at the Project Site. Project lighting would be directed onto the Project Site and
would be shielded to illuminate intended areas only. The Project switchgear would be lit when staff are at the Project Site working, but would not be lit when the station is unstaffed. These lighting measures would reduce the amount of light trespass falling outside the Project Site boundaries.

The glare and reflectance levels from a given PV solar energy facility are decisively lower than the glare and reflectance generated by the standard glass and other common reflective surfaces found in urban environments. The PV panels used for the Project would be dark blue or black with minimal light reflection and contain a microscopically irregular surface designed to trap incident rays of sunlight.

As of June 2013, there were over 30 solar projects in operations at airports in 15 different states. Solar installations have been successfully located at or near US international airports in Boston, New York, San Francisco, and Denver, among others. Glint and glare will be minimal and would not impact aircraft flying near the Project Site.

4.10 Security

The Project will be monitored by security staff during operations. An appropriate security fence (not less than six feet in height) with warning signs will be placed around the perimeter of the Project and all electrical equipment will be locked. sPower will coordinate with the Charles City County emergency services staff to install an approved, electronically controlled security access gate at the Project Site. As stated above, the Project would include inward facing, low level security lighting and cameras at ingress and egress points.

4.11 Electric and Magnetic Fields

Potential health effects from exposure to electric fields from power lines is negligible because magnetic fields attenuate rapidly. The Project has relatively low voltage and amperage and electromagnetic fields attenuate to background levels in less than 20 to 30 feet, or within the setback from Project boundary. Even within the facility, voltage and amperage is similar to that in other neighborhoods that contain low and medium voltage distribution lines. Out of the Project Site, the highest potential for EMF is from transmission lines. Transmission lines that will be installed will be similar to existing transmission lines in the area. Induced currents and voltages on conducting objects near the proposed transmission lines represent a small potential hazard; but these transmission lines do not pose a threat if the conducting objects are properly grounded. As part of the siting and construction process for the Project, sPower will site all proposed transmission lines with nothing underneath them that would conflict with grounding. Potential health effects from exposure to electric fields from the Project would be negligible.

4.12 Project Decommissioning

sPower will decommission and remove the system and its components at the end of the life of the Project. The Project site could then be converted to other uses in accordance with applicable land use regulations in effect at that time. All decommissioning and restoration activities will adhere to the requirements of the appropriate governing authorities.
Per the County’s recently drafted “Suggested Guidelines and Standards for Solar Energy Facility SUP”, sPower will submit a decommissioning plan that outlines the process by which all equipment at the Project Site, including internal roadways, will be removed. The decommissioning plan will discuss options for restoring the Project Site to a condition in accordance with applicable land use regulations in effect at that time. Additionally, sPower will secure costs of decommissioning the Project by providing and keeping in force a decommissioning agreement and financial surety in a form agreed to by the County Attorney.
PLOT PLANS FOR SPECIAL USE PERMIT
KEYDET SOLAR
COUNTY OF CHARLES CITY, VA
Special Use Permit Application

Keydet Solar B

Applicant:
sPower Development Company, LLC

S·POWER
An AES and AIMCo Company

2180 South 1300 East, Suite 600
Salt Lake City, UT 84106

February 2018
CHARLES CITY COUNTY
Special Use Permit Application
Application #__________________
Date ______________________
Fee ______________________

TO THE ZONING ADMINISTRATOR:

The Applicant sPower Development Company, LLC (sPower) is (are) the lessee (owner) of
property situated at Refer to Attachment ___________________________ between
Refer to Attachment ____________________ Street and Refer to Attachment ____________________ Street.

Exact Legal Description (Lot, Block and Tract) of said property being
Refer to Exhibit A of Special Use Permit Application

(A map of which and property owner’s list are hereto attached and made a part of this application.)

A) Above described property was acquired by Applicant on Refer to Attachment ____________.
B) What original deed restrictions concerning type of improvements permitted, if any, were
placed on the property involved? Give date said restrictions expire N/A _____________. (You
may attach copy of original printed restrictions in answer to this question after properly
underscoring those features governing the type of class of uses permitted thereby.)
C) Request: The applicant requests that you approve the location of the following use on the
above described property: (Use this space ONLY to state exactly what is intended to be
done on, or with the property. Use space on Page 2 for circumstances pertaining to this
request. If a building is involved, a sketch or plan, with photographic or other suitable
description should accompany this application.)

REQUIREMENTS AND INSTRUCTIONS FOR FILING APPLICATION FOR
SPECIAL USE PERMIT

1) The Application Form must be filled out completely with full answers to every statement
and question. The application MAY NOT be signed by an agent or attorney but MUST be
signed by the lessee, owner, or owners before a Notary Public in the space provided on
Applicant’s Affidavit. Signatures of adjacent property owners who approve the request may
be signed in the space provided on Applicant’s Affidavit. If space is not sufficient, a
supplemental sheet may be added to the petition. Such signatures are desirable but are not
absolutely required.
2) The FILING FEE in the amount of $1,000 _____________ payable to County Treasurer,
must be paid at the time of filing application.
GENERAL INFORMATION

1) Describe briefly the type of use and improvements proposed. State whether new buildings are to be constructed, existing buildings are to be used, or additions made to existing buildings.
   Refer to Exhibit C of Special Use Permit Application

2) Why does applicant believe the location of the use in question on the particular property is essential or desirable for the public convenience or welfare and will not be detrimental to the immediate neighborhood?
   Refer to Exhibit C of Special Use Permit Application

3) Describe how the proposed use and improvements are to be designed and arranged to fit into the development of adjacent property and the neighborhood.
   Refer to Exhibit C of Special Use Permit Application

4) Furnish plot plan showing boundaries and dimensions of property, width of boundary streets, location and size of buildings on the site, roadways, walks, off street parking and loading space, landscaping and the like. Architect's sketches showing elevations of proposed buildings and complete plans are also desirable and if available should be filed with application.
   Refer to Exhibit D of Special Use Permit Application
Application # ______________________
Date ______________________

Proposed use of property  Solar Energy Facility

Give exact location of property  Refer to Attachment

County Tax Map Parcel #  13-96
Total Acreage  159.52  Acreage under permit  159.52

Owner of Property  Jonathan C. Kinney
Address  2300 Wilson Boulevard, 7th Floor, Arlington Virginia 22201
Daytime Phone  703-525-4000  Cell ______________________

Applicant/Agent  sPower Development Company, LLC
Address  2180 South 1300 East, Suite 600, Salt Lake City, Utah 84106
Daytime Phone  801-679-3500  Cell ______________________

I do hereby certify that to the best of my knowledge, all information contained within this application is true and correct. I have attached a survey plat of the area proposed for rezoning and the following additional materials.

OWNERS SIGNATURE  DATE

Refer to Exhibit B of Special Use Permit Application

APPLICANT/AGENT SIGNATURE

Garret Bean, VP of Development
Special Use Permit Application
Attachment

Property Location

The property is located in western Charles City County; southeast of the intersection at Old Union Road (State Route 603) and Waymacks Road. Refer to Map on next page.

Property Acquisition

sPower Development Company, LLC (Applicant) has an executed Real Estate Purchase Option Agreement with Jonathan C. Kinney (current property owner) for the property described in this Special Use Permit Application. Acquisition of the property will occur when the Applicant’s Building Permits are approved by Charles City County for the proposed Solar Energy Facility.
EXHIBIT A

LEGAL DESCRIPTION OF THE PROPERTY

Tax Map No. 14 22

ALL that certain parcel of land in Harrison District, Charles City County, Virginia, being 10.00 acres, more or less, bounded on the North by land now or formerly of William E. Gill; East by "Worth Run"; South by land now or formerly of J.E. Fowlkes; and West by land now or formerly of Farrow and others, and known now or formerly as the "Ladd Tract" and designated as Parcel No. 14-22.

BEING the same real estate conveyed to Jonathan C. Kinney, Trustee, and Tranz Atlantic, LLC, a Virginia limited liability company. Trustee, by deed from James W. Elliott, Special Commissioner, dated July 7, 2014, recorded July 21, 2014, in the Clerk's Office, Circuit Comt, Charles City County, Virginia as Instrument No. 140000435.
OWNERSHIP AND CONSENT AFFIDAVIT

This is to certify under penalty of perjury that the undersigned is/are the record owner(s) of the real property described on the attached Exhibit “A” (the “Real Property”), attached hereto and incorporated by reference, and hereby consents to the filing of the Special Use Permit application(s) for the Real Property, and declare under penalty of perjury that they have reviewed this Ownership and Consent Affidavit and the information furnished is true and correct.

Executed this 6th day of February 2018.

Signature: [Signature] 
Print Name: Jonathan C. Kinney, Trustee

CERTIFICATE OF ACKNOWLEDGEMENT

STATE OF VIRGINIA 

COUNTY OF Arlington

The foregoing instrument was acknowledged before me this 6th February 2018, by

Jonathan Kinney, Sr.

Notary Public

my commission expires May 31, 2019

(Seal)
Exhibit C
Project Description

1.0 INTRODUCTION

The Special Use Permit Application was prepared for sPower Development Company, LLC’s (sPower, or the Applicant) proposed Keydet Solar B project (the Project) located in western Charles City County, Virginia. The following Project Description provides the general information that is required per Charles City County’s Special Use Permit Application.

The Project is part of a composite of two separate projects proposed is Charles City County, Virginia (refer to Figure 1, Keydet Solar Project Sites).

1.1 The Project

The Project consists of a 40 megawatt (MW) solar energy facility located on an approximate 160-acre site. The Project will utilize photovoltaic (PV) panels installed on single-axis trackers. Electricity will be delivered via transmission lines that will run from the Project to the nearby Chickahominy Substation owned by the Virginia Electric and Power Company.

The Project would benefit Charles City County and the State of Virginia by:

- Meeting the increasing demand for electricity generated from clean, renewable technology;
- Diversifying the State’s energy portfolio
- Reducing greenhouse gas emissions;
- Creating “green” jobs within the State;
- Stimulating the local economy during construction and operation of the Project

sPower will use best management practices and coordinate with all relevant agencies to minimize and mitigate impacts to the environment and local community. All project facilities will comply with the Charles City County zoning ordinance and development standards in accordance with Charles City County’s "Suggested Guidelines and Standards for Solar Energy Facility SUP".

2.0 PROJECT DESCRIPTION

The Project would consist of a 40 MW solar energy facility. PV modules will be mounted on racking systems supported by a pile-driven foundation design. The racking structure is expected to be a single-axis tracking configuration with north-south trending rows that will track the sun from east to west over the course of the day.

PV Modules will be electrically connected into strings that will be connected to combiner boxes located throughout the solar energy facility. The output power cables from the combiner boxes will be consolidated and feed the direct current (DC) electricity to inverters which convert the DC to alternating current (AC).
Figure 1
Keydet Solar Project Sites

Keydet Solar
Each inverter will be fully enclosed, pad mounted, and stand approximately 7 feet in height. The AC output from the inverters will be routed through an AC collection system and consolidated within the system switchgear. The final output from the solar energy facility will be processed through a step-up transformer to match the interconnection voltage.

The Project will be designed with a comprehensive Supervisory Control and Data Acquisition ("SCADA") system for remote monitoring of facility operations and/or remote control of critical components. Within the Project Site, the fiber optic or other cabling required for the monitoring system will be installed throughout the solar energy facility leading to centrally located (or series of appropriately located) SCADA system cabinets. The telecommunications connections to the SCADA system cabinets may be wireless or hard wired.

The Project will include a meteorological ("met") data collection system. The met station will have the following weather sensors: a pyranometer for measuring solar irradiance, a thermometer to measure air temperature, a barometric pressure sensor to measure atmospheric pressure, and two wind sensors to measure speed and direction. These sensors will be connected to a data logger to compile the data for transmission to the Data Collection Center.

All energy will be routed to Project switchgears, located on the northwestern portion of the Project Site, at which point all energy from the Project will be stepped up to 230 kilovolts (kV). The primary switchgears include the main circuit breakers and utility metering equipment, and would be enclosed separately and pad mounted together with the generator step-up (GSU) transformers. The Project will interconnect at the Chickahominy Substation at 230 kV.

An operations and maintenance (O&M) storage facility will be located on-site to store maintenance equipment and vehicles, safety equipment, replacement components, and other items deemed necessary for Project operations.

To summarize, the Project would consist of the following primary components:

- PV modules
- Single-axis tracker system
- Electrical inverters and transformers
- Electrical AC collection system, including switchgears
- Combiner boxes
- Electrical disconnects
- Data monitoring systems
- Transmission lines
- Meteorological station
- Telecommunications equipment
- O&M storage facility
- Access roads
- Security fencing, lighting, and cameras
2.1 Project Location

The Project will be located on approximately 60 acres of rural, cleared forest and timber land in western Charles City County, Virginia. The Project Site is surrounded by a mix of single-family residences, limited agriculture, forested lands, and a sand and gravel facility owned and operated by Aggregate Industries. The Project Site includes one parcel (Tax Map Parcel # 13-96) that is zoned Agriculture (A-1).

The Project Site is ideal for a solar energy facility due to its topography, large tract of land used for silviculture, and close proximity to the Chickahominy Substation. The general location of the Project Site is also ideal in that it is nearby an industrial facility (Aggregate Industries) to the south, a landfill (USA Waste of Virginia Landfill) to the east, and State Route 106 to the west. The Virginia Department of Transportation (VDOT) designated State Route 106 as an industrial corridor to provide access from industrial areas inside and outside the County.

As described in further detail in Section 4.0 of this document, the Project would produce electricity passively during the life of Project operations and not disrupt day-to-day living of nearby residences. The Project would not increase traffic in the region during operations as the Project would employee five (5) to ten (10) long-term employees. The Project would have a minimum 100-foot setback from adjacent properties in addition to a landscape buffer, thereby shielding view of the Project from nearby residences. Wetland habitats and undeveloped areas within the Project Site would be preserved as open space with naturally growing vegetation. Additionally, the Project would be developed in accordance with Charles City County’s Zoning Ordinance and “Suggested Guidelines and Standards for Solar Energy Facilities SUP” document.

2.2 Site Access

Primary access to the Project Site will be provided via Roxbury Road (State Route 106) and Old Union Road (State Route 603). Site access will be improved and maintained to the satisfaction of the Charles City County Fire Department. Additionally, all site access locations and driveway entrances will be coordinated with Charles City County and VDOT.

Refer to the Exhibit D, Plot Plan for a depiction of potential site access locations. All site locations are subject to final design.

2.2 Planning and Zoning

2.2.1 Zoning District and Ordinance

All parcels within the Project boundary are zoned Agriculture (A-1). Per the Charles City County Zoning Ordinance, solar energy facilities are permitted as a special use in A-1 zoning districts. Therefore, the Project will adhere to the requirements of Section 5 of the Charles City County Zoning Ordinance. Additionally, the Project will comply with the requirements and development standards outlined in Charles City County’s “Suggested Guidelines and Standards for Solar Energy Facility SUP”.
2.2.2 Special Use Application

Per Section 26 of the Charles City County Zoning Ordinance, sPower is submitting a Special Use Permit Application for the Project. The Special Use Permit Application includes the following:

- Application Form
- Exhibit A, Legal Description
- Exhibit B, Ownership and Consent Affidavit
- Exhibit C, Project Description
- Exhibit D, Plot Plan
- Application Fee

Architectural renderings are not included in the Special Use Permit Application as no buildings are proposed for the Project.

2.2.3 Economic Development Strategic Plan

Charles City County adopted its Economic Development Strategic Plan in 2015 to define future economic opportunities and chart a path to enhance the tax base, provide jobs and small business opportunities, and bring the community together to work toward and shared vision. Electric power generation such as utility-scale solar was identified in the Plan as a viable economic option due to the County’s availability of low cost, remote land and access to the power grid (Chickahominy Substation). The Project would be consistent with the Plan’s initiatives in that it’s a utility-scale solar project that would enhance the County’s tax base, provide local jobs, create a direct economic stimulation to local businesses, and utilize existing energy infrastructure at the Chickahominy Substation.

2.2.4 Environmental Permitting

In addition to the requirements above, sPower has contracted with Kimley-Horn and Associates, Inc. to conduct Species and Habitat Surveys, Wetlands Surveys, and Cultural and Historic Resources Surveys at the Project Site. Surveys are being coordinated with Virginia’s Department of Environmental Quality (DEQ), Marine Resources Commission (VMRC), Department of Historic Resources (DHR), and the United States Army Corps of Engineers. Surveys will commence in February 2018 and are anticipated to be completed by April 2018. Prior to construction of the Project, all required permits, reports, and technical analyses will receive final approval from their respective governing agencies.

2.2.5 State Corporation Commission

sPower will be submitting an application to the State Corporation Commission (SCC) for a Certificate of Public Convenience and Necessity (CPCN) pursuant to § § 56-46.1 and 56-580 D of the Code of Virginia and 20 VAC 5-302, for construction and operation of the Project. sPower anticipates submitting the application in April 2018 and receiving approval of the CPCN in December 2018.
3.0 CONSTRUCTION

Project construction would consist of three major phases: (1) site preparation; (2) PV system installation; and (3) testing. sPower anticipates close collaboration with Charles City County during the permitting process to identify and manage environmental conditions and design criteria specific to the Project. Through the permitting process, sPower will implement all required mitigation measures and Best Management Practices (BMPs) as determined by Charles City County and regulatory agencies.

Construction could be initiated as early as January 2019, with a duration of approximately 12 to 18 months (including Keydet Solar A).

3.1 Site Preparation

Construction of the project would begin with initial clearing and grading (if required) of the staging areas. Access to the Project Site would be improved to appropriate construction standards. The staging areas would typically include temporary construction trailers, worker parking, truck loading and unloading facilities, and an area for assembly. Road corridors would be surveyed, cleared, and graded to bring equipment, materials, and workers to the areas under construction. Buried electrical lines, PV array locations, and the locations of other facilities may be flagged and staked to guide construction activities. BMPs for stormwater and erosion control would be installed during the site preparation phase and prior to significant grading activities.

3.2 PV System Installation

PV system installation will include earthwork, grading, and erosion control, as well as erection of the PV modules, supports, and associated electrical equipment. System installation will begin with teams installing the mounting and steel pier support structures. The exact design will be finalized pending specific soil conditions, but will likely include pneumatically driven H-pile steel beams attached to a tracker racking system. This will be followed by panel installation and electrical work.

Concrete may be required for the footings, foundations, and will be required for pads for the inverters and transformers. Concrete will be produced at an off-site location by a local provider and transported to the Project Site by truck. Final concrete specifications will be determined during detailed design engineering and will meet applicable building codes.

The PV modules require a moderately flat surface for installation. Some earthwork, including grading, fill, compaction, and erosion control cultivation may be required to accommodate the placement of PV arrays, foundations or footings, access roads, and drainage features. A Virginia Pollutant Discharge Elimination System (VPDES) permit will be obtained by sPower. Construction of the PV arrays will include installation of support beams, module rail assemblies, PV modules, inverters, transformers, and buried electrical cables.

Wastes that will be generated during construction may include the following: cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spools. sPower does not expect to
generate hazardous waste during construction of the proposed Project. However, field equipment used during construction will contain various hazardous materials such as hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, and other petroleum-based products contained in construction vehicles.

3.3 Construction Workforce

Construction could be initiated as early as January 2019, with a duration of approximately 12 to 18 months (including Keydet Solar A). The on-site workforce will consist of laborers, various skilled trades, supervisory personnel, support personnel, and construction management personnel. Construction will generally occur during daylight hours, Monday through Friday. Construction activities will be conducted consistent with Charles City County regulations regarding hours of construction.

The Project (including Keydet Solar A) will generate an estimated 500 new jobs during the construction phase and will provide approximately five (5) to ten (10) full time positions over the life of the facility for O&M activities. sPower and its Engineering, Procurement, and Construction (EPC) contractor intend to host local career fairs to recruit a local workforce for the Project to the extent possible.

3.4 Emergency and Shutdown Procedures

To ensure the safety of all employees working on the Project during construction, sPower will develop and implement an Emergency Response Plan for the Project in accordance with Code of Federal Regulation 1910.38 established by the Occupational Safety and Health Administration (OSHA). Key personnel will be designated to train all employees working on the Project, and will be responsible for administering emergency and shutdown procedures in the event of an emergency. Emergency and shutdown procedures will be clearly displayed in all construction trailers, along with contact information for emergency service providers and treatment facilities. Appropriate warning signage will be placed on all towers, electrical equipment, and Project Site ingress and egress points. Prior to construction, sPower will notify all emergency service providers of construction activities occurring at the Project Site and inform them of all emergency and shutdown procedures, including who needs to be contacted in case of an emergency.

sPower will coordinate its development of the Emergency Response Plan with the Charles City County Fire Department to ensure satisfactory safety measures are in place in the event of a wildfire. Safety measures shall include fire suppression methods that can be immediately deployed during both construction and operation of the Project. A water tank will be constructed on the Project Site to supply water to emergency service providers and regularly maintained with the guidance of the Charles City County Fire Department.

Additional instructions and/or emergency training will be provided to Charles City County emergency services serving the Project Site to the satisfaction of Charles City County.
3.5 Transportation

Equipment, permanent materials, and commodities for the Project will be transported to the Project Site via rail and state and/or interstate highways. Heavy hauls will be shipped via rail to nearest active railroad spur for offloading and transported by truck to the Project Site. Heavy haul trucks with multiple axles will be employed to distribute loads, as required. All equipment and material deliveries will utilize the Project Site access.

Truck deliveries of equipment and materials will occur beginning with the initial construction notice to proceed and continuing through the duration of the Project construction process. Initial truck deliveries will include heavy haul trucks for importing panels, project materials, followed by concrete trucks for installation of the solar field and major foundations, and deliveries of reinforcing steel. Electrical cabling and piping materials for buried piping will be delivered to the Project Site early in the construction period corresponding to approximately the time frame for foundation installation. Deliveries of large major equipment will commence at about midpoint of the construction period.

3.6 Parking and Staging Areas

sPower will ensure adequate parking is provided for construction workers at the Project Site. In addition to parking, the Project will require a temporary staging area for storing materials, assembling components, refueling equipment, and installing construction trailers. Parking and staging signs will be clearly placed at ingress and egress points to direct traffic to the proper location.

3.7 Waste and Recycling

Construction waste would be generated from installation of the solar arrays and related facilities. Construction waste generation is expected to be minimal and consist of mostly recyclable materials such as cardboard, steel, and electrical wiring. sPower’s EPC contractor that will be responsible for construction of the Project will carefully disassemble and recycle shipping containers and solar panel packaging to minimize solid waste impacts. The EPC contractor will contract with a waste and recycling service provider to ensure all waste generated from construction of the Project is disposed of in accordance with federal and State regulations. The EPC contractor will store, collect, and dispose of solid waste in such a manner as to prevent fire and health hazards, rodent harborage, insect breeding, accidents, and odor. The EPC contractor will ensure that no littering on the Project Site or neighboring properties will occur during construction.

3.8 Sanitation Services

No wastewater facilities exist at the Project Site and no such facilities would be constructed for the Project. Portable restroom facilities would be provided and maintained by sPower’s EPC contractor during construction.
3.9 Water Supply

It is anticipated that a 40 MW project on approximately 160 acres would use approximately 43 acre-feet of water during construction. Prior to initiation of construction, sPower will secure water rights from local sources to the approval of the Charles City County. It is anticipated that water will be supplied from newly constructed on-site wells. Water will primarily be used for dust control on un-paved roads, and will be applied via on-site water trucks. Additionally, as stated above, water tanks will be constructed on the Project Site to supply water to emergency service providers and regularly maintained with the guidance of the Charles City County Fire Department.

3.10 Site Stabilization

Upon completion of the Project, sPower will stabilize the Project Site through use of a native seed mix to the satisfaction of Charles City County. Furthermore, site stabilization will be maintained by sPower operations and maintenance staff throughout the life of the Project to the specifications of Charles City County. Site stabilization with a native seed mix will prevent erosion at the Project Site, while reestablishing native pollinators at the Project Site once construction is complete.

4.0 OPERATIONS AND MAINTENANCE

Upon commissioning, the Project would enter the operational phase. For the duration of the operational phase, the Project would be operated remotely and monitored by on-site staff for security and maintenance purposes. As the Project’s PV arrays produce electricity passively with minimal moving parts, maintenance requirements would be limited. Any required planned maintenance would be scheduled to avoid peak load periods, and unplanned maintenance would be typically responded to as needed depending on the event. An inventory of spare components would be readily available.

Other operational details are summarized in the following sections.

4.1 Operations

sPower will ensure consistent and effective facility operations by:

- Responding to automated alarms based on monitored data, including actual versus expected tolerances for system output and other key performance metrics;
- Communicating with customers, transmission system operators and other entities involved in facility operations; and
- Designating a site supervisor to monitor and implement emergency and normal shutdown procedures

4.2 Maintenance

Project maintenance performed on the site would consist of equipment inspection and replacement. Maintenance would occur during daylight hours, when possible. However, maintenance activities
on the PV modules and DC systems would be typically performed at night. Maintenance program elements include:

- Managing a group of prequalified maintenance and repair firms who can meet the O&M needs of the facility throughout its life;
- Implementing a responsive, optimized cleaning schedule;
- Responding to plant emergencies and failures in a timely manner;
- Maintaining an inventory of spare parts to ensure timely repairs and consistent plant output;
- Maintaining a log to effectively record and track all maintenance problems; and
- Performing maintenance on the site as required to clear obstructive ground cover

4.3 Remote Monitoring of the Project

The Project will be monitored 365 days a year from a remote location utilizing a Supervisory Control and Data Acquisition (SCADA) system. Safe, effective and efficient operation of the Project is dependent on the operator receiving accurate information on all environmental measurements which affect production. These measurements include solar irradiation, ambient temperature, back of module temperature, and wind speed. These environmental characteristics are reported by various sensors—pyranometers for irradiance, thermometers for temperatures, and anemometers for wind speed. Other characteristics of the Project are also reported in real time such as current production, voltage, amperage, power quality, and the status of all circuit protection devices. Circuit protection devices include the ability to report the status of their protective relays continuously as are the meters which report the electrical characteristics of the Project.

Signals from all sensors, meters, and circuit protection devices are accumulated in to one or more data loggers which report via secure internet connections to sPower's monitoring provider. The software that comprises the monitoring system is set up to send alarms when one or more conditions arise that compromise the safe and efficient operation of the plant. sPower has operators on duty in its control center during all hours when production is expected. If an emergency should arise in the off hours, personnel are assigned to take “on-call” messages in the case of emergencies.

4.4 Emergency and Shutdown Procedures

As stated above, sPower will develop and implement an Emergency Response Plan for the Project. All employees working on the Project during operations will be trained in emergency and shutdown procedures. Signs will be clearly marked at the Project Site for emergency vehicle ingress and egress. sPower will facilitate training for emergency service providers related to the specific hazards of the Project.

4.5 Transportation

The Project will primarily be operated remotely and monitored by on-site staff for security and maintenance purposes. Therefore, transportation to and from the Project Site will be minimal and would not adversely affect existing traffic conditions. As stated above, signs will be clearly marked at the Project Site in the event that emergency vehicles need to access the Project Site. The paved
driveways providing access to the Project Site and the unpaved internal road system will be maintained as needed during the life of the Project.

4.6 Water Supply

During operation of the Project, minimal water would be used for solar panel washing on an annual basis and periodically for landscaping. It is estimated that approximately 1 to 2 acre-feet of water per year would be needed during operations. It is anticipated that water will be supplied from newly constructed on-site wells or trucked in from a local provider.

4.7 Waste and Recycling

Waste is not expected to be generated in significant quantity during operation of the Project.

4.8 Operational Noise

Solar energy facilities generate minimal noise during operations. Primary sources of operational noise would include the inverters and solar tracker system, and would be limited to daytime hours when the Project is generating electricity. Inverters and the solar tracker system would be located far enough from the property line so as not to increase ambient noise at adjacent residences.

4.9 Light and Glare

The Project would include inward facing, low-level motion detector security lighting at ingress and egress points at the Project Site. Project lighting would be directed onto the Project Site and would be shielded to illuminate intended areas only. The Project switchgear would be lit when staff are at the Project Site working, but would not be lit when the station is unstaffed. These lighting measures would reduce the amount of light trespass falling outside the Project Site boundaries.

The glare and reflectance levels from a given PV solar energy facility are decisively lower than the glare and reflectance generated by the standard glass and other common reflective surfaces found in urban environments. The PV panels used for the Project would be dark blue or black with minimal light reflection and contain a microscopically irregular surface designed to trap incident rays of sunlight.

As of June 2013, there were over 30 solar projects in operations at airports in 15 different states. Solar installations have been successfully located at or near US international airports in Boston, New York, San Francisco, and Denver, among others. Glint and glare will be minimal and would not impact aircraft flying near the Project Site.

4.10 Security

The Project will be monitored by security staff during operations. An appropriate security fence (not less than six feet in height) with warning signs will be placed around the perimeter of the Project and all electrical equipment will be locked. sPower will coordinate with the Charles City
County emergency services staff to install an approved, electronically controlled security access gate at the Project Site. As stated above, the Project would include inward facing, low level security lighting and cameras at ingress and egress points.

4.11 Electric and Magnetic Fields

Potential health effects from exposure to electric fields from power lines is negligible because magnetic fields attenuate rapidly. The Project has relatively low voltage and amperage and electromagnetic fields attenuate to background levels in less than 20 to 30 feet, or within the setback from Project boundary. Even within the facility, voltage and amperage is similar to that in other neighborhoods that contain low and medium voltage distribution lines. Out of the Project Site, the highest potential for EMF is from transmission lines. Transmission lines that will be installed will be similar to existing transmission lines in the area. Induced currents and voltages on conducting objects near the proposed transmission lines represent a small potential hazard; but these transmission lines do not pose a threat if the conducting objects are properly grounded. As part of the siting and construction process for the Project, sPower will site all proposed transmission lines with nothing underneath them that would conflict with grounding. Potential health effects from exposure to electric fields from the Project would be negligible.

4.12 Project Decommissioning

sPower will decommission and remove the system and its components at the end of the life of the Project. The Project site could then be converted to other uses in accordance with applicable land use regulations in effect at that time. All decommissioning and restoration activities will adhere to the requirements of the appropriate governing authorities.

Per the County’s recently drafted “Suggested Guidelines and Standards for Solar Energy Facility SUP”, sPower will submit a decommissioning plan that outlines the process by which all equipment at the Project Site, including internal roadways, will be removed. The decommissioning plan will discuss options for restoring the Project Site to a condition in accordance with applicable land use regulations in effect at that time. Additionally, sPower will secure costs of decommissioning the Project by providing and keeping in force a decommissioning agreement and financial surety in a form agreed to by the County Attorney.
12 approved under PBR

with expedited SCC Approval

Subject to state regulation

150 MW

Generation capacity 6 MW to

acres to 2676 acres

Project area ranges from 41

DEQ Permit by Rule (PBR) - November 2014 through January 2018

73 Notices of Intent (NOI) to install solar generation - 40 counties & 2 cities
Changes in Virginia law - Regulatory and tax incentives

- 2016 General Assembly modified M&IGT exemption – full exemption for projects 5 MW or less; 80% exemption for projects greater than 5 MW.

- 2015 General Assembly – creates the ability for investor-owned utilities (IOUs) to collect additional revenue from ratepayers for construction (or purchase) of up to 500 MW of solar capacity (still requires SCC approval).

- 2014 General Assembly - exempts 204A Tool Tax (M&IGT) exemption.

- 2013 General Assembly – exempts solar equipment.

- Subject to local zoning & land use authority.

- Recertified solar energy equipment from local taxes.

- 1977 General Assembly grants authority to localities to fully or partially exempt.

- Subject to local zoning & land use authority.

- However, still

- or less to by-pass State Corporation Commission (SCC) approval. However, still

- Permit by Rule (PBR) – 2009 General Assembly allows solar generation of 100 MW

- "certified solar energy equipment" from local taxes.
Changes in Virginia law - Regulatory and tax incentives (continued)
Senate and House and awaiting action by the Governor:

- Process with a Reasonable Special Exception, or other approval process, Passed the Large solar facilities to be advertised and approved concurrently in a public hearing.

- SB 179/HB 509 - Allows for Substantialaccord (comprehensive plan) review for SB 902 - modifies MRT exemption - projects greater than 150 MW not subject to mandatory 80% tax exemption (local option still applies), Passed the Senate and House and awaiting action by the Governor:

2018 General Assembly Legislation
The impact of applicable local government taxes on utility scale solar
Local Government Considerations

- Sources of energy
- Industrial sites in proximity to clean/renewable opportunities to market existing commercial and conditions
- Decommissioning/Returning land to pre-existing conditions
- Plan Update
- Compatibility with agricultural use (Comprehensive...
Solar Panels and Solar Farms
(Solar Energy Equipment, Facilities, or Devises)

Property Tax Guide for Virginia Assessing Officers

Prepared by the
Property Tax Section
Virginia Department of Taxation

[A summary of information related to solar panels, solar farms, and solar photovoltaic (electric energy) systems.]
Table of Contents

3 Introduction
4 Definitions from Wikipedia, the Free Encyclopedia
5 How Solar Works
6 Summary
7 Classification as Real Property or Personal Property
8 Extracts from the Constitution and Code of Virginia (with recent legislation)
12 Some Questions to and Responses from the Property Tax Section
19 Localities in Virginia Exempting or Partially Exempting Certified Solar Energy Property
20 Links to News Articles on Solar Energy and Solar Farms

~ 2 ~
Introduction

September 2016

In recent months, the Property Tax Section has received a number of inquiries concerning solar panels and solar farms. This document has been prepared to provide Virginia assessing officers some information on Virginia property tax law pertaining to solar equipment, facilities, or devices, and to include other related information that may be useful.

We have addressed questions related to the identification, classification, and valuation for local property tax assessment. We ask that you contribute to our efforts by providing us any questions you have, as well as any information you gain if solar equipment, facilities, or devices are installed or developed in your locality. We will attempt to periodically update this document as law changes, and as we gain more information.

As always, you and your staff are welcome to contact us with any questions or comments.
Definitions from Wikipedia, the Free Encyclopedia

Solar Panel –

Solar panel refers to a panel designed to absorb the sun's rays as a source of energy for generating electricity or heating.

A photovoltaic (in short PV) module is a packaged, connected assembly of typically 6×10 solar cells. Solar Photovoltaic panels constitute the solar array of a photovoltaic system that generates and supplies solar electricity in commercial and residential applications. Each module is rated by its DC output power under standard test conditions, and typically ranges from 100 to 365 watts. The efficiency of a module determines the area of a module given the same rated output – an 8% efficient 230 watt module will have twice the area of a 16% efficient 230 watt module. There are a few solar panels available that are exceeding 19% efficiency. A single solar module can produce only a limited amount of power; most installations contain multiple modules. A photovoltaic system typically includes a panel or an array of solar modules, a solar inverter, and sometimes a battery and/or solar tracker and interconnection wiring.

Solar Farm –

A photovoltaic power station, also known as a solar park, is a large-scale photovoltaic system (PV system) designed for the supply of merchant power into the electricity grid. They are differentiated from most building-mounted and other decentralized solar power applications because they supply power at the utility level, rather than to a local user or users. They are sometimes also referred to as solar farms or solar ranches, especially when sited in agricultural areas. The generic expression utility-scale solar is sometimes used to describe this type of project.

The solar power source is via photovoltaic modules that convert light directly to electricity. However, this differs from, and should not be confused with concentrated solar power, the other large-scale solar generation technology, which uses heat to drive a variety of conventional generator systems. Both approaches have their own advantages and disadvantages, but to date, for a variety of reasons, photovoltaic technology has seen much wider use in the field. As of 2013, PV systems outnumber concentrators by about 40 to 1.

In some countries, the nameplate capacity of photovoltaic power stations is rated in megawatt-peak (MWp), which refers to the solar array’s DC power output (in Virginia, statutes refer to megawatt of generation capacity). However, Canada, Japan, Spain and some parts of the United States often specify using the converted lower nominal power output in MWac, a measure directly comparable to other forms of power generation. A third and less common rating is the mega volt-amperes (MVA). Most solar parks are developed at a scale of at least 1 MWp. As of 2015, the world’s largest operating photovoltaic power stations have capacities of close to 600 megawatts and projects up to 1 gigawatt are planned. As at the end of 2015, about 3,400 projects with a combined capacity of 60 GWac were solar farms larger than 4 MW.[1]

Most of the existing large-scale photovoltaic power stations are owned and operated by independent power producers, but the involvement of community- and utility-owned projects is increasing. To date, almost all have been supported at least in part by regulatory incentives such as feed-in tariffs or tax credits, but as levelized costs have fallen significantly in the last decade and grid parity has been reached in an increasing number of markets, it may not be long before external incentives cease to exist.
How Solar Works

1. Sunlight falls on high capacity solar panels during daylight hours. The solar panels convert the sun's energy into Direct Current (DC) electricity which is sent to an inverter.

2. The inverter converts the Direct Current into Alternating Current (AC) electricity. This is a process called "conditioning" the power.

3. When the solar energy system produces more electricity than is needed during peak sun hours, excess electricity is automatically sent to the utility company and the electric meter actually runs backwards.

4. Solar energy systems produce very high quality electricity that reduces the chance of power fluctuations that could damage electronic equipment.

5. Utility power is continually provided at night and during the day when demand exceeds solar production.
Summary

Typically “solar panels” are the topic for discussion, but other associated solar equipment, facilities, or devices need to be included. Being property, they are generally subject to local property tax assessment, but in some cases may be exempt from taxation by general law or by local option. Installations vary, are utilized by individuals and businesses in different configurations, and will require classification determinations – real or personal property, taxable or exempt – for assessment purposes. In some cases, solar energy installations are appraised by the State Corporation Commission, and in other cases, appraised by the local assessing officer.

Classification as Real or Personal Property

Solar energy equipment, facilities, or devices have been specifically declared to be a separate class of property and shall constitute a classification for local taxation separate from other classifications of real or personal property when exempt, either under § 58.1-3660, or if enacted by the local governing body, under § 58.1-3661.

The provisions of § 58.1-3661.D are clear that a real versus personal property distinction is applicable for the exemption. The local assessing officer shall, if such local ordinance is in effect:

“D. ... proceed to determine the value of such qualifying solar energy equipment, facilities, or devices or certified recycling equipment, facilities, or devices. The exemption provided by this section shall be determined by applying the local tax rate to the value of such equipment, facilities, or devices and subtracting such amount, wholly or partially, either (i) from the total real property tax due on the real property to which such equipment, facilities, or devices are attached or (ii) if such equipment, facilities, or devices are taxable as machinery and tools under § 58.1-3507, from the total machinery and tools tax due on such equipment, facilities, or devices, at the election of the taxpayer. This exemption shall be effective beginning in the next succeeding tax year, and shall be permitted for a term of not less than five years. In the event the locality assesses real estate pursuant to § 58.1-3292, the exemption shall be first effective when such real estate is first assessed, but not prior to the date of such application for exemption.

E. It shall be presumed for purposes of the administration of ordinances pursuant to this section, and for no other purposes, that the value of such qualifying solar energy equipment, facilities, and devices is not less than the normal cost of purchasing and installing such equipment, facilities, and devices.”

For the purposes of the exemption under § 58.1-3661, please note that the application of the exemption is made to the real estate tax or to the personal property tax, at the election of the taxpayer. In addition, the value is presumed to be no less than the sum of the purchase and installation costs for the period the exemption is in effect.

If taxable, the question remains, is such equipment to be classified as real or personal property? If personal property, solar energy equipment is identified as a separate class of property under:
§ 58.1-3306 Other classifications of tangible personal property for taxation
A. The items of property set forth below are each declared to be a separate class of property and shall constitute a classification for local taxation separate from other classifications of tangible personal property provided in this chapter:

41. Tangible personal property designed and used primarily for the purpose of manufacturing a product from renewable energy as defined in § 56-576 ("Solar energy system" means a system of components that produces heat or electricity, or both, from sunlight)

The determination is one made by the assessing officer. Criteria for making a classification distinction are discussed in Questions to and Responses from the Property Tax Section, beginning on page 11. In either case, depreciated cost and market sales analysis can be used to estimate the fair market value of solar energy equipment for tax assessment.

Extracts from the Constitution and Code of Virginia

NOTE: Extracted portions of the statutes are included for your reference. For a better understanding, the law should be read in its entirety.

Constitution of Virginia

Article X Taxation and Finance » Section 6 - Exempt property
(a) Except as otherwise provided in this Constitution, the following property and no other shall be exempt from taxation, State and local, including inheritance taxes:

(d) The General Assembly may define as a separate subject of taxation any property, including real or personal property, equipment, facilities, or devices, used primarily for the purpose of abating or preventing pollution of the atmosphere or waters of the Commonwealth or for the purpose of transferring or storing solar energy, and by general law may allow the governing body of any county, city, town, or regional government to exempt or partially exempt such property from taxation, or by general law may directly exempt or partially exempt such property from taxation.

Code of Virginia

Definitions Used in Various Statutes

Title 56 Public Service Companies » Chapter 23 Virginia Electric Utility Regulation Act

§ 56-576. Definitions
As used in this chapter:
"Solar energy system" means a system of components that produces heat or electricity, or both, from sunlight.

Title 67 Virginia Energy Plan » Chapter 7 Covenants Restricting Solar Energy Collection Devices
§ 67-700. Definitions
As used in this chapter:
"Solar energy collection device" means any device manufactured and sold for the sole purpose of facilitating the collection and beneficial use of solar energy, including passive heating panels or building components and solar photovoltaic apparatus.

Title 58.1 Taxation » Chapter 26 Taxation of Public Service Corporations
§ 58.1-2600. Definitions
A. As used in this chapter:

"Electric supplier" means any person owning or operating facilities for the generation, transmission or distribution of electricity for sales, except any person owning or operating facilities with a designed generation capacity of twenty-five megawatts or less.

NOTE: The State Corporation Commission is to appraise for local taxation electric suppliers with generation capacity greater than 25 megawatts

Statutes Pertaining to Property Tax Exemption

Title 58.1 Taxation » Chapter 36 Tax Exempt Property

§ 58.1-3660. Certified pollution control equipment and facilities
A. Certified pollution control equipment and facilities, as defined herein, are hereby declared to be a separate class of property and shall constitute a classification for local taxation separate from other such classification of real or personal property and such property. Certified pollution control equipment and facilities shall be exempt from state and local taxation pursuant to Article X, Section 6 (d) of the Constitution of Virginia.

B. As used in this section:
"Certified pollution control equipment and facilities" shall mean any property, including real or personal property, equipment, facilities, or devices, used primarily for the purpose of abating or preventing pollution of the atmosphere or waters of the Commonwealth and which the state certifying authority having jurisdiction with respect to such property has certified to the Department of Taxation as having been constructed, reconstructed, erected, or acquired in conformity with the state program or requirements for abatement or control of water or atmospheric pollution or contamination... Such property shall also include solar energy equipment, facilities, or devices owned or operated by a business that collect, generate, transfer, or store thermal or electric energy whether or not such property has been certified to the Department of Taxation by a state certifying authority. For solar photovoltaic (electric energy) systems, this exemption applies only to projects equaling 20 megawatts or less, as measured in alternating current (AC) generation capacity. Such property shall not include the land on which such equipment or facilities are located.

2016 General Assembly Bills amending this Section:

- HB 1305 Solar and wind energy equipment, etc tax exemptions

~ 8 ~
SUMMARY AS PASSED:
Sales and use tax exemption and real and personal property tax exemption; solar and wind energy equipment, facilities, and devices. Provides a sales and use tax exemption for machinery, tools, and equipment of a public service corporation used to generate energy derived from sunlight or wind, which expires June 30, 2027.

The bill also alters the types of projects of solar photovoltaic (electric energy) systems that qualify for the real and personal property tax exemptions on photovoltaic equipment and facilities. The full exemption is for such equipment and facilities used in (i) projects equaling 20 megawatts or less for which an initial interconnection request form is filed on or before December 31, 2018; (ii) projects equaling 20 megawatts or less that serve a public institution of higher education or a private college; and (iii) projects equaling 5 megawatts or less for which an initial interconnection request form is filed on or after January 1, 2019. The exemption is for 80% of the assessed value of such equipment and facilities used in (a) projects greater than 20 megawatts for which an initial interconnection request form has been filed with an electric utility or a regional transmission organization after January 1, 2015, and first in service on or after January 1, 2017, and (b) projects greater than 5 megawatts for which an initial interconnection request form is filed on or after January 1, 2019. Under current law, the property tax exemption is for projects equaling 20 megawatts or less. The bill provides that the exemption for projects greater than 20 megawatts shall not apply to projects upon which construction begins after January 1, 2024. The bill has a delayed effective date of January 1, 2017.

- SB 743 Division of Energy: state certifying authority for solar projects

SUMMARY AS PASSED:
Division of Energy; state certifying authority: Adds to the duties of the Division of Energy of the Department of Mines, Minerals and Energy the duty of serving as the state certifying authority in determining conformity with state requirements for solar energy projects and the production of coal, oil, and gas.

§ 58.1-3661. Certified solar energy equipment, facilities, or devices and certified recycling equipment, facilities, or devices
A. Certified solar energy equipment, facilities, or devices and certified recycling equipment, facilities, or devices, as defined herein, are hereby declared to be a separate class of property and shall constitute a classification for local taxation separate from other classifications of real or personal property. The governing body of any county, city or town may, by ordinance, exempt or partially exempt such property from local taxation in the manner provided by subsection D.

B. As used in this section:

"Certified solar energy equipment, facilities, or devices" means any propety, including real or personal property, equipment, facilities, or devices, excluding any such property that is exempt under § 58.1-3660, certified by the local certifying authority to be designed and used primarily for the purpose of collecting, generating, transferring, or storing thermal or electric energy.
Bills amending this Section:

- HB 1305 Solar and wind energy equipment, etc tax exemptions

<table>
<thead>
<tr>
<th>Exemption</th>
<th>Description</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>100%</strong></td>
<td>projects equaling 20 megawatts or less</td>
<td>* initial interconnection request form is filed on or before December 31, 2018 * serve a public institution of higher education or a private college * initial interconnection request form is filed on or after January 1, 2019</td>
</tr>
<tr>
<td></td>
<td>projects equaling 5 megawatts or less</td>
<td></td>
</tr>
<tr>
<td><strong>80%</strong></td>
<td>projects greater than 20 megawatts</td>
<td>* initial interconnection request form has been filed with an electric utility or a regional transmission organization after January 1, 2015, and first in service on or after January 1, 2017 * shall not apply to projects upon which construction begins after January 1, 2024 * initial interconnection request form is filed on or after January 1, 2019</td>
</tr>
<tr>
<td></td>
<td>projects greater than 5 megawatts</td>
<td></td>
</tr>
</tbody>
</table>
Some Questions to and Responses from the Property Tax Section

NOTE: Please be advised that property tax is a local tax, which is imposed and administered by local officials. The Code of Virginia limits the involvement of the Department of Taxation to providing advisory aid and assistance, promulgating guidelines, and issuing advisory opinions. However, the department shall not be required to interpret any local ordinance.

While addressing the questions below, the responses provided by the Property Tax Section are for guidance only and unless noted as such, do not constitute formal or binding Department opinions or rulings. Those can only be made by the Tax Commissioner.

Question: Are solar panels taxed as personal property or real property.

Answer: The Encyclopedia of Real Estate Appraising states that, for taxation purposes, the appraiser must decide whether “fixtures,” which solar panels may be, are (a) permanently affixed to the real property and (b) are intended to stay with the property upon transfer (the “intent of the parties”).

Solar panels (and other associated equipment or devices) that are securely installed and affixed to the real estate could be considered fixtures to be assessed as part of the real property. Such examples would include rooftop installations or panels mounted on a foundationally secured pole or poles. How the system is integrated into the operating systems of the improvements should also be considered. One should be able to say that upon inspection one would reasonably conclude that the panels are permanently affixed to the real estate.

There are solar panels, energy devices, and equipment that are portable or otherwise not permanently affixed to the real estate. Again, in such cases, one should be able to reasonably conclude that the devices and equipment are not permanently affixed to the real estate, and would be classified as personal property.

The courts have held that even when such items as solar panels are permanently affixed to the real property, if the intention of the buyer and seller is to exclude the solar panels from the transfer of the real estate, then they are treated as personal property, not real property. It is often left to the appraiser to rely on the owner’s statement as to his intent.

In mass appraisal for annual property tax assessment, if affixed to the property, it can be difficult to determine the “intent of the parties”. Even if there is a sale the motivations of the parties may be unclear. However, the assessing officer must make a classification determination.

For solar energy equipment and devices, including solar panels, we recommend using a uniformly applied approach. We suggest that solar panels be inspected, and if reasonably determined to be permanently affixed, classify with the real estate. Only consider “the intent of the parties” if the classification is challenged. This can be applied to other solar energy devices and equipment as well.

Understand that as a component of the real estate, a solar energy system may contribute little to the market value of the real estate. The application of the technology is new, and cost is
relatively high. Few sales are available for analysis, but it is possible that the value of an installed system would be significantly depreciated when the real estate is sold. Similar, but non-affixed, more portable equipment may have value in the marketplace more in keeping with its cost. Whether classified as a part of the real estate or as personal property, assessment values should be supported with the best available market value indicators and reflect market behavior.

One more item: Pollution equipment has been exempted from property taxation. This includes solar energy equipment, facilities, or devices owned or operated by a business that collect, generate, transfer, or store thermal or electric energy whether or not such property has been certified to the Department of Taxation by a state certifying authority. For solar photovoltaic (electric energy) systems, this exemption applies only to projects equaling 20 megawatts or less, as measured in alternating current (AC) generation capacity. Such property shall not include the land on which such equipment or facilities are located (see § 58.1-3660 and, § 58.1-3661 as amended).

Summary of conclusions:

- Based on any classic definition, it is the a) method of affixation and the b) intent of the parties that determine whether solar panels are considered real property. However, in actual practice for taxation purposes, it may be only practical to consider the method of affixation to the real property.

- For consistency, we suggest this application of the definition be applied uniformly regarding solar panels, devices, equipment, subject to taxpayer challenges where intent can be clearly established, and communicating this to your contract assessor.

- When it comes to businesses using solar panels, most solar panels are exempt from taxation, within the provisions of statute. (see 2016 amendments to this statute for the updated exemption requirements)

***************

Question: I have a poultry farmer who is considering having solar panels installed on her farm buildings to power the houses. She asked the question, “Would they be taxed”? The County exempts farm equipment and that is how she thinks they should be classified. A COR referenced 58.1-3660 and feels the locality would need to adopt an ordinance to specifically recognize the classification and to exempt solar panels. Your opinion please

Answer: § 58.1-3660. Certified pollution control equipment and facilities

... Certified pollution control equipment and facilities shall be exempt from state and local taxation pursuant to Article X, Section 6 (d) of the Constitution of Virginia...
... Such property shall also include solar energy equipment, facilities, or devices owned or operated by a business that collect, generate, transfer, or store thermal or electric energy whether or not such property has been certified to the Department of Taxation by a state certifying authority. For solar photovoltaic (electric energy) systems, this exemption applies only to projects equaling 20 megawatts or less, as measured in alternating current (AC) generation capacity. Such property shall not include the land on which such equipment or facilities are located...

I do not think I would consider it farm equipment. If this is to be a solar photovoltaic energy system not exceeding 20 megawatts, and used in the operations of the poultry business, then under 58.1-3660, the solar energy equipment would be carried as a separate classification of property and would be exempt from property tax. Under 58.1-3660, a local ordinance is not required.

***************

**Question:** A solar farm company has approached the County, and 1,181 acres have been approved for the use. The question, for now, is what is the land worth?

**Answer:** Advanced Observations and Recommendations for Large Scale Installations:

1) We recommend estimating the fair market value of the land, as legally permitted for this higher use, unencumbered and assuming not in the land use program. The most reliable approach is an analysis of comparable land values, actual land sales or assessments of similar land tracts in comparable areas of your county or in similar counties, and for similar use. Using the internet, search for wind farms and solar farms throughout the more minimally populated areas of the state, expanding your search to comparable localities in the Mid-Atlantic. After obtaining several examples, call the Commissioners of the Revenue, or similar posts, in these localities, and find out what the land assessments are, and the basis for their values. There may have been solar farms proposed and/or built in Campbell, Bath and Highland Counties. The local power plant may be a good comparable; but solar farm, wind farm, and regional light industrial land sales may be considered.

2) Contact the Federal Regulatory Commission and ask if they have examples of sales of land used for solar farms, wind farms or other utility uses. If not, how do they estimate land value? What land cap rates are used? What are the values of the entitlements (the zoning)? Amazon is currently also funding a wind farm in Benton County, Indiana, which should produce power from January 2016, and in Accomack County Virginia.

3) You can use older sales, if necessary. Applying the Housing Price Index to adjust values to present time, ignoring the temporary depressed market. Some solar companies are doing this. They appear to be ignoring recent overly depressed land values.

4) CoStar, the nationwide provider of commercial and land sales, will research the word “solar farm” and “wind farm” in their database and tell you how many sales in minimally
populated areas they have. You can then purchase data on each land sale or buy only the ones you want.

5) See loopnet.com, the nationwide database for commercial listings (like a nationwide MLS). They offer a free basic service. The listings included was one potential solar farm 7 miles east of Fredericksburg, out in the country, for $10,000/acre (75 acres).

6) Income capitalization can also be used for an estimate of land value where you have reliable sources of land lease terms, and reasonable estimates of applicable direct capitalization rates, and/or discount rates for a net present value methodology.

NOTE: Some of the above recommendations require careful application of advanced appraisal methodologies and analytical skills. It is important that value estimates be properly supported with verified data that is appropriate for the property being valued. Our office is available to discuss specific appraisal methodology questions with you.

**************

**Question:** Do you have any ideas about how to assess individual power generation, be they solar farms or hydro plants, taxable or exempt?

It seemed clear to me that a solar farm would be assessable. However, now the person is asking me to speak directly to the SCC. He says that Dominion Power may be the owner of the equipment and that the State will waive all taxes on this type of equipment.

In the same breath that he is telling me the profit margin is very low on this type of power and all costs need to be kept to a minimum, he will be receiving a $100,000 a year lease payment and that should not increase his real estate values.

**Answer:** It seems he, the property owner, is going all over the place trying to explain his tax status. I do not have enough information to provide you reliable assistance with this matter. Proper classification of his property requires more information about the property in question, and its legally permissible use. It seems that the property may be taxable, but the question is who appraises it, the local office or the SCC?

It may be helpful to question the SCC. If they do not value it, then it may be yours to assess directly. I have included contact information. If you cannot reach Jason Holloway, try Ron McKissick. He is the appraisal manager.

**Key Staff:**

- Jason Holloway, Prin. Utility Appraiser (Electric), 804-371-9835, jason.holloway@scc.virginia.gov
- Ron McKissick, Prin. Utility Appraiser (Appraisals), 804-371-9400, ron.mckissick@scc.virginia.gov
************

**Question:** We have a facility that is looking at converting a “golf course” into a solar farm. The operation will be 20 megawatts (we are being told). From what I read in 58.1-3660 this equipment would be exempt from state and local taxes? However, 58.1-3661 real estate would be taxable unless the Board by ordinance exempted either wholly or partially such property??

Secondly, the parcel of land this company is looking at is an existing golf course, which is in open space for land use. Therefore, the property would be subject to roll back taxes and since the buyer would be changing the use of the property – they would be liable for the rollback tax?

**Answer:** If we understand the facts of the questions correctly, then this project would be subject to the provisions of § 58.1-3660, as a business and having 20 megawatts or less of production. The equipment would be exempt.

§ 58.1-3660. Certified pollution control equipment and facilities.
A. Certified pollution control equipment and facilities, as defined herein, are hereby declared to be a separate class of property and shall constitute a classification for local taxation separate from other such classification of real or personal property and such property. Certified pollution control equipment and facilities shall be exempt from state and local taxation pursuant to Article X, Section 6 (d) of the Constitution of Virginia.

B. As used in this section:

... Such property shall also include solar energy equipment, facilities, or devices owned or operated by a business that collect, generate, transfer, or store thermal or electric energy whether or not such property has been certified to the Department of Taxation by a state certifying authority. For solar photovoltaic (electric energy) systems, this exemption applies only to projects equaling 20 megawatts or less, as measured in alternating current (AC) generation capacity. Such property shall not include the land on which such equipment or facilities are located...

Please note that certain bills in General Assembly may need to be considered.

**HB 1305** Solar and wind energy equipment, etc.; tax exemptions - 2016 Session
Introduced by: **Jackson H. Miller**

**SB 743** Division of Energy; state certifying authority for solar energy projects.
Introduced by: **Frank W. Wagner**

The land use questions are more difficult. We do not believe at this time such a scenario has been addressed, but there is talk that a solar farm is going to be an allowed use. As things stand right now, an argument could be made for it being a change to a non-qualifying use. Energy production is considered manufacturing, so it would be a change to an industrial use. However,
there may be a change in the near future. Even if it becomes an accepted use for the Land Use program, it is not clear how the mechanics of including solar farm in the land use program will be handled.

§ 58.1-3230. Special classifications of real estate established and defined.
For the purposes of this article the following special classifications of real estate are established and defined:

"Real estate devoted to open-space use" shall mean real estate used as, or preserved for, (i) park or recreational purposes, including public or private golf courses, (ii) conservation of land or other natural resources, (iii) floodways, (iv) wetlands as defined in § 58.1-3666, (v) riparian buffers as defined in § 58.1-3666, (vi) historic or scenic purposes, or (vii) assisting in the shaping of the character, direction, and timing of community development or for the public interest and consistent with the local land-use plan under uniform standards prescribed by the Director of the Department of Conservation and Recreation pursuant to the authority set out in § 58.1-3240 and in accordance with the Administrative Process Act (§ 2.2-4000 et seq.) and the local ordinance...

If rollback is applied, be prepared for a challenge, and the possibility of having to refund the taxes collected.

**********

Questions and Answers in General

The use of solar panels for solar energy is increasing in Virginia. The Governor has expressed a desire to promote the development of alternative energy, and the legislature has enacted exemption statutes, which should encourage more development of alternative sources of energy.

We anticipate more questions pertaining to the definition, classification and exemption of solar energy equipment, facilities and devices. It may be difficult to know where to "draw the line". This is likely to be a topic of many discussions going forward.

There is a need to keep up with the actions of the General Assembly, Tax Commissioner Rulings and Advisory Opinions, Attorney General Opinions and court rulings. New laws have been enacted, and will be going in to effect in the coming years. It is possible the Tax Commissioner, Attorney General, and the court will be asked to opine on related questions.
Localities in Virginia Exempting or Partially Exempting Certified Solar Energy Property (As of Calendar Year 2014 or Fiscal Year 2014-2015)

Locality

- Albemarle County
- City of Alexandria
- City of Charlottesville
- Chesterfield County
- Fairfax County
- City of Falls Church
- City of Hampton
- Hanover County
- City of Harrisonburg
- Isle of Wight County
- King and Queen County
- City of Lexington
- Loudoun County
- City of Lynchburg
- Prince William County
- Pulaski County
- City of Roanoke
- Spotsylvania County
- City of Winchester
- Wise County

Recent News

August 2, 2016
Governor McAuliffe Announces Solar Project to Power Government Operations with Renewable Energy
The Commonwealth is partnering with Dominion and the Department of the Navy to build solar project at Naval Air Station Oceana

August 11, 2016
Governor McAuliffe Announces Utility-Scale Solar Project in Buckingham County
Once complete, the 19.8-megawatt project will be the first utility-scale solar generator of its kind in Buckingham County

August 17, 2016
Governor McAuliffe Announces Utility-Scale Solar Project in Northampton County
20-megawatt facility to provide enough power to supply over 3,000 households

August 29, 2016
Governor McAuliffe Announces Virginia’s First Community Solar Project
Governor commissions BARC Electric’s solar facility for community member-owners in the region (Rockbridge)
Links to News Articles on Solar Energy and Solar Farms

Virginia partners with Dominion, Microsoft on solar power project
http://www.richmond.com/business/article_58237f07-d9c9-5ee3-b34b-260c663fb7de.html

Va. Power to work with N.C. firm to build solar farm in Chesapeake

Dominion acquires Accomack solar power project

McAuliffe sets 8% solar power goal for state government

Co-ops help Va. homeowners tap the power of the sun

Developer hopes to bring solar farm to New Kent

Amazon solar farm us east
https://communityenergysolar.com/project/amazon-solar/

Solar farm project gets go-ahead from board

New Jersey solar farm plan raises concerns over costs

Bartholomew County board blocks 100,000-panel solar farm
http://www.richmond.com/business/ap/article_3d9e01b9-efc7-55af-b165-b1b61cc3fd8d.html

Interest in solar power soaring while utility seeks rate cut
http://www.richmond.com/news/ap/article_9a95b399-d7e4-52f7-b331-1836ac38d0b3.html

Lincoln solar power project expected to fire up by June 20
http://www.richmond.com/news/ap/article_8134b77a-9440-5eb9-ae6a-12cddb42f36.html

~ 18 ~
THE COMPOSITE INDEX AND HOW IT RELATES TO SOLAR DEVELOPMENT IN VIRGINIA
Contents

What is the Composite Index? ................................................................. 2
How Solar Factors In........................................................................ 2
How Solar is Taxed............................................................................ 3
Is Solar Taxation and CI Valuation Inconsistent ......................... 4
What Is The Impact On The Counties ............................................ 4
Appendix – Relevant Citations .......................................................... 6
  Electric Generation Taxed at Real Estate Rate............................... 6
    § 58.1-2600. Definitions................................................................. 6
    § 58.1-2606. Local taxation of real and tangible personal property of public service
corporations; other persons................................................................ 6
  80% Tax Exemption for Solar......................................................... 6
    § 58.1-3660. Certified pollution control equipment and facilities........ 6
Composite Index ............................................................................ 7
    2016 Acts of Assembly, Chapter 780, Item 139 A. Definitions............ 7
Public Service Corporations .............................................................. 7
    § 56-1. Definitions........................................................................ 7
True Value of Public Service Corporations ..................................... 7
    Department of Taxation - 2014 Virginia Assessment/Sales Ratio Study........ 7
    State Corporation Commission – Instructions for Filing the Annual Tax Report of Electric
    Companies.................................................................................. 7
Bureaucratic bookkeeping had threatened to inadvertently grind Virginia solar development to a halt. The State government has addressed this issue, and on April 6th Virginia’s Tax Commissioner, Craig M. Burns, issued a letter clarifying the valuation of solar projects within the Composite Index. The end result is that solar projects will provide significant tax revenue to their host counties.

What is the Composite Index?

The Composite Index of Local Ability-to-Pay (Cl) is a tool that the Virginia Department of Education uses to allocate state education funding to each county based on relative wealth. Some counties depend heavily on this funding, which could total tens of millions of dollars per year.

The Cl measures the relative wealth of each county and allocates state funds in inverse proportion to the relative wealth. Cl values potential sources of tax revenue, including real estate value, gross income, and retail sales. The Cl calculates these measures of wealth on per capita and pupil bases, and the Cl determines the proportion of the state total. The point of this is to measure how much tax revenue a county will be able to raise to fund its school system, how many students the county will spend that money on, and how that ratio compares to other counties in the state. In the end, the Cl determines the percentage of particular budget items paid by the county vs. by the state. Wealthier counties with a higher Cl shell out a greater proportion of these budget items themselves. An increase in the Cl will increase the county’s share.

How Solar Factors In

The relevant piece of the Cl calculations for solar generation is the total real estate value for the county or the True Value. The Department of Taxation (DOT) calculates True Values for the Department of Education (DOE) which includes these in their Cl calculations. The DOT breaks the True Value into two parts: real estate and Public Service Corporation property, which includes solar and other electrical generation equipment. The DOT calculates the value of real estate by looking at local tax assessments and property sale prices, and the State Corporation Commission (SCC) provides the ‘Public Service Corporation’ property values. The SCC includes solar generation facilities greater than 25 MWs in its calculations of Public Service Corporation property values.

When we bring a Virginia solar generator online, the SCC assesses the value. The SCC then reports the value of the solar farm, along with all other utility property in each county, to the DOT. The DOT combines the solar value(s) with the other elements of True Value to create the county and reports to the DOE, which uses these values to calculate the Cl. The Cl determines the percentage of educational funding that the county pays. Increased taxable property increases the Composite Index which reduces the share paid by the state.
How Solar is Taxed

The following provides the relevant pieces of legislation regarding tax treatment for solar generating facilities:

- VA Code § 58.1-2600
  - Anyone who owns an electric generation facility over 25MW is an “Electric Supplier”
  - The property of Electric Suppliers is assessed by the SCC.
- VA Code § 58.1-2606
  - All property owned by Public Service Corporations (utilities) is taxed at the real estate rate.
  - The tax on generating equipment owned by Electric Suppliers is capped at the real estate tax rate.
- VA Code § 58.1-3660
  - Solar is considered Certified Pollution Control Equipment
  - Solar under 20MWac is 100% tax-exempt
  - Solar over 20MWac is 80% tax-exempt if it is put in service after January 1, 2017

The combination of these sections of the Virginia code results in the following outcomes:

<table>
<thead>
<tr>
<th></th>
<th>Under 20MW</th>
<th>20-25MW</th>
<th>Over 25MW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Utility-Owned</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessed By</td>
<td>SCC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax Rate</td>
<td>N/A</td>
<td>Real Estate</td>
<td></td>
</tr>
<tr>
<td>Tax Exemption</td>
<td>100%</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td><strong>Privately-Owned</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessed By</td>
<td>Locality</td>
<td>SCC</td>
<td></td>
</tr>
<tr>
<td>Tax Rate</td>
<td>N/A</td>
<td>Machine &amp; Tools</td>
<td>Capped at Real Estate Rate</td>
</tr>
<tr>
<td>Tax Exemption</td>
<td>100%</td>
<td>80%</td>
<td></td>
</tr>
</tbody>
</table>

Hence, the Virginia code results in the following outcomes and uncertainty for solar generating facilities greater than 25 MWs:

1. Inclusion in the CI as Public Service Corporation property,
2. 80% tax exemption as pollution control equipment, and
Was Solar Taxation and CI Valuation Inconsistent

The SCC reports two different valuations to the DOT: the Full Value (or Fair Market Value) and the Assessed Value. The Full Value reports the total project cost, and the Assessed Value reports the project cost less tax exemptions. The Full Value represents what can be taxed, while the Assessed Value represents what is actually taxed. Historically, the DOT reported the Full Value because until recently the counties determined the relevant tax exemptions for pollution control equipment. Hence, the DOT policy ensured that some counties were not subsidizing other counties decisions to provide tax incentives.

For solar generation facilities greater than 20 MWs and brought online on or after January 1, 2017, the state provides an 80% tax exemption consistent with other pollution control equipment. If a solar facility costs $100 million, the SCC will report the $100 million as Full Value. The DOT calculated the Composite Index using this Full Value rather than the Assessed Value which reflects the taxable value. The Full Value caused the Composite Index for the host county to rise reflecting the new source of tax revenue, and the state would reduce its percentage of funding.

Given solar’s categorization as pollution control equipment, the state exempts $80 million of the $100 million. The county will tax the solar facility at a value of $20 million, increasing revenues. However, the use of Full Value - $100 million — in the CI reduced the state funding by an amount significantly greater than the increased tax funding the project would provide.

What Is The Impact On The Counties

The idea behind adjusting state funding based on county wealth is that new development will pay more in taxes than the county loses in state funding, so the county is ultimately better off. If state funding is cut based on 100% of a project’s Fair Market Value (FMV), but the county can only collect tax on 20% of its FMV, the county will experience a net decrease in revenue.

To provide an example, we calculated the net revenue impact for a hypothetical $100 million solar plant in a representative county under both scenarios: the Composite Index incorporates i) the FMV (100%) and ii) the Assessed Value (20%). If the Composite Index utilizes the FMV the county experiences a net revenue loss, and if the Composite Index utilizes Assessed Value the county experiences a net revenue gain.

**Fair Market Value:** Assuming the FMV is included in Composite Index, a $100 million solar generator provides the county a net decrease of $68 thousand in year one.

<table>
<thead>
<tr>
<th>FMV Value</th>
<th>New Tax</th>
<th>Drop in State Funding</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100,000,000</td>
<td>$80,000</td>
<td>- $147,597</td>
<td>- $67,597</td>
</tr>
</tbody>
</table>
FMV punishes economic development and defeats the purpose of the tax exemption. The Commonwealth provides tax exemptions to promote public welfare. If counties lose money every time a solar farm is developed, counties will deny permit applications.

**Assessed Value:** If DOT uses Assessed Value to calculate solar facilities contribution to the CI, a $100 million solar generator provides the county a net increase of $52 thousand in year one.

<table>
<thead>
<tr>
<th>Assessed Value</th>
<th>New Tax</th>
<th>Drop in State Funding</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20,000,000</td>
<td>$80,000</td>
<td>- $27,917</td>
<td>$52,083</td>
</tr>
</tbody>
</table>

On April 6th Virginia's Tax Commissioner, Craig M. Burns, issued a letter clarifying that Assessed Value of solar projects will be included in the Composite Index. This letter ensures that solar projects will produce a net revenue gain for counties and clears the way for solar development in Virginia.

The Tax Commissioner's letter stated

"... in the event that the proposed solar farm is built and qualifies for the 80% exemption under Va, Code § 58.1-3660, the Department will exclude the exempt value of the property from the true values of real estate and PSC property in the county. ... The actual assessed value will be reported by the Department to the Department of Education (DOE) as the true value of property to be used by DOE to calculate the amount of state educational funding."

The timing for this clarification was critical because certain parts of the development process impose tight timing windows on 'Go / No Go' decisions. Without clarity on the county permitting process, developers may have abandoned projects.

We and the solar development community appreciate the attention and the ultimate timing of the state's clarification. We have been working with staff throughout the state government who have been very responsive in helping to reach a resolution. We thank Governor McAuliffe's team and the staff for both reaching a decision consistent with the state's policies and for recognizing the need for a timely decision.
Appendix – Relevant Citations

Electric Generation Taxed at Real Estate Rate

A. "Electric supplier" means any person owning or operating facilities for the generation, transmission or distribution of electricity for sales, except any person owning or operating facilities with a designed generation capacity of twenty-five megawatts or less.

§ 58.1-2606. Local taxation of real and tangible personal property of public service corporations; other persons

C. ... generating equipment that is reported to the Commission by electric suppliers shall be taxed at a rate determined by the locality but shall not exceed the real estate rate applicable in the respective localities.

80% Tax Exemption for Solar
§ 58.1-3660. Certified pollution control equipment and facilities.

A. Certified pollution control equipment and facilities shall be exempt from state and local taxation pursuant to Article X, Section 6 (d) of the Constitution of Virginia.

B. (Effective January 1, 2017) "'Certified pollution control equipment and facilities' shall mean any property, including real or personal property, equipment, facilities, or devices, used primarily for the purpose of abating or preventing pollution of the atmosphere or waters of the Commonwealth ... Such property shall also include solar energy equipment, facilities, or devices owned or operated by a business that collect, generate, transfer, or store thermal or electric energy whether or not such property has been certified to the Department of Taxation by a state certifying authority. For solar photovoltaic (electric energy) systems, this exemption applies only to (i) projects equaling 20 [mW.ac] or less ... initial interconnection request ... filed ... on or before December 31, 2018; (ii) ... 20 [mW.ac] or less ... serve any of the public institutions of higher education ... (iii) 80 [% exemption] ... initial interconnection request ... after January 1, 2015, and greater than 20 [mW.ac] ... in service on or after January 1, 2017, (iv) ... 5 [mW.ac] or less ... initial interconnection request ... on or after January 1, 2019, and (v) 80 [% exemption] all other projects [>] 5 [mW.ac] ... interconnection request ... on or after January 1, 2019. [Exemption sunsets for > 20 mW.ac for construction starts after January 1, 2024.]"
Composite Index
2016 Acts of Assembly, Chapter 780, Item 139 A. Definitions

4.a. "Composite Index of Local Ability-to-Pay" - An index figure computed for each locality. The composite index is the sum of 2/3 of the index of wealth per pupil... and 1/3 of the index of wealth per capita.... The indices of wealth are determined by combining the following constituent index elements with the indicated weighting: (1) true values of real estate and public service corporations as reported by the State Department of Taxation ...

Public Service Corporations
§ 56-1. Definitions

"Public service corporation" or "public service company" includes gas, pipeline, electric light, heat, power ... and all persons authorized to transport passengers or property as a common carrier.

True Value of Public Service Corporations
Department of Taxation - 2014 Virginia Assessment/Sales Ratio Study

Total estimated true value for public service corporations was nearly $41.8 billion; that figure includes the value reported by the State Corporation Commission, as well as, the estimated true value of railroad and interstate pipeline transmission property.

State Corporation Commission – Instructions for Filing the Annual Tax Report of Electric Companies

Please report all certified pollution control equipment in Schedule 13 of this report for assessment and the exemption will be noted on the final assessment statement.