## CONCEPT PLAN SUBMITTAL MATERIALS

## Wild Hill Solar Project Kabletown, West Virginia

Prepared for:

# Wild Hill Solar, LLC an Indirect Subsidiary of EDF Renewables, Inc.

10 Second Street, NE, Suite 400 Minneapolis, Minnesota 55413

Prepared by:

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Project No. 0101-19-0344-001

June 9, 2022

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#### **REVISED CONCEPT PLAN SUBMITTAL MATERIALS**

#### Wild Hill Solar Project Kabletown, West Virginia

#### **1.0 PROJECT DESCRIPTION**

Wild Hill Solar, LLC (Wild Hill) an indirect subsidiary of EDF Renewables, Inc (EDF), is proposing to construct a 92.5-megawatt alternating current solar energy generating facility, known as Wild Hill Solar (the Project), on approximately 841 acres on six contiguous parcels owned by five separate property owners. The project is located approximately 2.5 miles south of the city of Charles Town situated between U.S. Highway 340 (to the west) and Route 25, Kabletown Road, (to the east) and is surrounded by agricultural and residential land uses. Approximately 262 acres of this solar project land is within the Urban Growth Boundary, and approximately 262 acres are outside of this Urban Growth Boundary. Wild Hill proposes to lease these parcels for a period of 30 or more years. The project will consist of rows of solar modules which are installed in arrays dispersed throughout the leased land. The project will have a substation connected to the existing 138-kilovolt overhead electrical transmission line passing though the southeast corner of the project area. This substation will be situated on a proposed 4.61-acre subdivided parcel which will have a 50-foot access easement through Mr. Todd Hough's property off of Shennandale Road. The project will include internal access roads, commercial entrance(s), will be surrounded by security fencing and required zoning buffer, and stormwater management.

#### 2.0 PROJECT AND ADJOINING PROPERTIES

| Property<br>Owner   | Zigler,Inc.                      | Clarence &<br>Donna S.<br>Hough   | John<br>Samuel &<br>Alice J.<br>Rissler<br>Estate      | Charles E.<br>& Marie S.<br>Hough –<br>LIFE                 | T. Todd &<br>Susan H.<br>Hough,<br>Trustees                 | Clarence &<br>Donna S.<br>Hough   |
|---------------------|----------------------------------|---|--|---|---|---|
| Physical<br>Address | North Fork Rd.,                  | Vacant Parcel -<br>east of the<br>property located<br>at 1343 Roper<br>North Fork Rd.<br>Charles<br>Town, WV<br>25414 | 616 Uinta<br>Farm Ln.,<br>Charles<br>Town, WV<br>25414 | 620 Old<br>Shennandale<br>Rd., Charles<br>Town, WV<br>25414 | 340 Old<br>Shennandale<br>Rd., Charles<br>Town, WV<br>25414 | Vacant Parcel –<br>north of the<br>property located<br>at 340 Old<br>Shennandale<br>Rd.,<br>Charles Town,<br>WV 25414 |
| Deed Book           | 307                              | 1209  | 1228   | 1209  | 1125  | 1212  |
| Page                | 345                              | 172   | 303  | 172   | 476   | 57  |
| Parcel ID           | District 6,<br>TM#4,<br>Parcel 9 | District 6,<br>TM#11,<br>Parcel 7.1   | District 2,<br>TM#16,<br>Parcel 18                     | District 6,<br>TM#11,<br>Parcel 8                           | District 6,<br>TM#5,<br>Parcel 1                            | District 6,<br>TM#5,<br>Parcel 6  |
| Zoning<br>District  | Rural                            | Rural   | Rural  | Rural   | Rural   | Rural   |

#### Parcels to be Leased (within Solar Project)

| Total Parcel<br>Size        | 350.95 Acres | 107.38 Acres | 293.33 Acres | 118.05<br>Acres | 206.84 Acres | 49.04 Acres |
|-----------------------------|--------------|--------------|--------------|-----------------|--------------|-------------|
| <b>Project Area</b>         | 350.95 Acres | 107.38 Acres | 120.56 Acres | 32.11 Acres     | 181.70 Acres | 49.04 Acres |
| in Urban<br>Growth<br>Area? | YES          | YES          | YES          | NO              | NO           | NO          |

#### **Adjoining Property Information**

- Vacant TM 4 PAR 4
   Owner: Cloverdale Heights
   Homeowners Association Inc.
   Address: 209 Cloverdale Road
   Charles Town, WV 25414
   Zoned: Rural
- Lot 112 TM 4 PAR 121 Owner: Amanda L. Thomas Address: 153 Heath Court Charles Town, WV 25414 Zoned: Rural
- Lot 111 TM 4 PAR 120 Owner: Glendwell J. & Joann L. Lloyd Address: 133 Heath Court Charles Town, WV 25414 Zoned: Rural
- Lot 110 TM 4 PAR 119 Owner: William P. & Jamie L. Loewendick Address: 111 Heath Court Charles Town, WV 25414 Zoned: Rural
- Lot 109 TM 4 PAR 118 Owner: Timothy B. & Marta C. Sheehy Address: 71 Heath Court Charles Town, WV 25414 Zoned: Rural
- Lot 95 TM 4 PAR 104
   Owner: Lowell V. & Teresa L. Barnard Address: 362 Cloverdale Road Charles Town, WV 25414
   Zoned: Rural

- Lot 94 TM 4 PAR 103
   Owner: Nathan A. & Katie S. Madrid Address: 434 Cloverdale Road Charles Town, WV 25414 Zoned: Rural
- Lot 93 TM 4 PAR 102 Owner: Jamie H. & Gary D. Sharp Address: 46 Brighton Place Charles Town, WV 25414 Zoned: Rural
- Lot 85 TM 4 PAR 94 Owner: Steven Krop Address: 544 Cloverdale Road Charles Town, WV 25414 Zoned: Rural
- Lot 84 TM 4 PAR 93
   Owner: Randy T. & Teresa R. Kelley Address: 582 Cloverdale Road Charles Town, WV 25414 Zoned: Rural
- 11. TM 16 PAR 11 Owner: Mark E. Roper, et al. Address: 418 S. Samuel Street Charles Town, WV 25414 Zoned: Residential/Growth
- 12. TM 16 PAR 12.8 Owner: Zigler Inc. Address: 1343 Roper North Fork Road Charles Town, WV 25414 Zoned: Rural

- 13. TM 16 PAR 12.9Owner: Joshua P. LargentAddress: 469 Sanctuary LaneCharles Town, WV 25414Zoned: Rural
- 14. TM 16 PAR 18 Owner: John Samuel & Alice J. Rissler Estate Address: 616 Uinta Farm Lane Charles Town, WV 25414 Zoned: Rural
- 15. TM 16 PAR 18.2 Owner: Ronald D. & Tracey H. Rissler Address: 616 Uinta Farm Lane Charles Town, WV 25414 Zoned: Rural
- 16. TM 16 PAR 19.1
  Owner: Lawrence G. Rinard & Laura J. Johnston
  Address: 5731 Kabletown Road
  Charles Town, WV 25414
  Zoned: Rural
- 17. TM 5 PAR 5 Owner: William G. & Barbara W. Rissler Address: 3432 Macintyre Drive Murrysville, PA 15668 Zoned: Rural
- TM 5 PAR 5.2 Owner: Michael A. & Wilma J. Nemec Address: 5203 Kabletown Road Charles Town, WV 25414 Zoned: Rural
- TM 5 PAR 5.1
   Owner: Dorothy D. Rissler
   Address: 4052 Cypress Street
   Zachary, LA 70791
   Zoned: Rural

20. TM 5 PAR 1.2 Owner: Todd T. & Susan B. Hough, Trustees Address: 219 Ann Lewis Road Charles Town, WV 25414 Zoned: Rural 21. TM 5 PAR 1 Owner: Todd T. & Susan B. Hough, Trustees Address: 219 Ann Lewis Road Charles Town, WV 25414 Zoned: Rural 23. TM 11 PAR 9 Owner: Bullskin LLC Address: 3250 Highland Place Washington, DC 20008 Zoned: Rural 24. TM 10 PAR 5 Owner: Stanley W. Jr. & Katherine B. Dunn Address: 1371 Meyerstown Road Charles Town, WV 25414 Zoned: Rural 25. TM 11 PAR 5 Owner: Nancy C. Stolipher Address: 1599 Roper North Fork Road Charles Town, WV 25414 Zoned: Rural 26. TM 11 PAR 7 Owner: Zigler Inc. Address: 1083 Roper North Fork Road Charles Town, WV 25414 Zoned: Rural 27. TM 11 PAR 6

Owner: Sarah F. Carl Family Partnership Address: 14707 Essington Road Rockville, MD 20853 Zoned: Rural

- 28. TM 4 PAR 9.1
  Owner: Richard A. & Susan Zigler
  Address: 1083 Roper North Fork Road
  Charles Town, WV 25414
  Zoned: Rural
- 29. TM 4 PAR 3.1Owner: Reva N. MickeyAddress: 377 Roper North Fork RoadCharles Town, WV 25414Zoned: Rural
- 30. TM 5 PAR 1.4Owner: Douglas A. KnottAddress: 336 Old Shennandale RoadCharles Town, WV 25414Zoned: Rural
- 31. TM 5 PAR 1.3 Owner: Kim E. Gutierrez Jr. Address: 182 Old Shennandale Road Charles Town, WV 25414 Zoned: Rural
- 32. TM 5 PAR 1.1Owner: Robert P. & Patricia A. Funk Address: 252 Old Shennandale Road Charles Town, WV 25414 Zoned: Rural
- 33. TM 22 PAR 97Owner: Donald E. & Lois A. Coyne.Address: 5712 Kabletown RoadCharles Town, WV 25414Zoned: Rural
- 34. TM 5 PAR 7.10Owner: James A. & Lisa S. BoyerAddress: 5404 Kabletown RoadCharles Town, WV 25414Zoned: Rural

- 35. TM 19 PAR 8.4Owner: Michelle D. CookAddress: 6171 Kabletown RoadCharles Town, WV 25414Zoned: Rural
- 36. TM 19 PAR 8.1Owner: Iurie & Valentina S. Gutu Address: 80 Old Cave Road Charles Town, WV 25414Zoned: Rural
- 37. TM 16 PAR 78Owner: Ryan B. & Michelle L. Robbins Address: 18 Devonshire Drive Charles Town, WV 25414Zoned: Rural
- 38. TM 16 PAR 91 Owner: Daniel J. & Theresa E. Stogner Address: 27 Devonshire Drive Charles Town, WV 25414 Zoned: Rural
- 39. TM 16 PAR 17.6 Owner: Eric D. Seeders Address: 300 Old Cave Road Charles Town, WV 25414 Zoned: Rural
- 40. TM 16 PAR 18.1 Owner: Mary P. Rissler Address: 279 Old Cave Road Charles Town, WV 25414 Zoned: Rural
- 41. TM 16 PAR 18.3
  Owner: Gary & Carolyn R. Vanderhaven Address: 283 Old Cave Road Charles Town, WV 25414 Zoned: Rural

- 42. TM 16 PAR 18.4 Owner: Clyde R. Jr. & Donna R. Hitt Address: 97 Water Side Street Ridgely, WV 26753-7336 Zoned: Rural
- 43. TM 16 PAR 17.5
  Owner: Lutman Land Development LLC Address: 412 W. Burr Boulevard Kearneysville, WV 25430 Zoned: Rural
- 44. TM 16 PAR 17
  Owner: Gabriel S. & Shanika A. McCloud
  Address: 53 Monte Carlo Way
  Charles Town, WV 25414
  Zoned: Rural
- 45. TM 16 PAR 126 Owner: Jacqueline K. Oehlsen Address: 32 Abbington Court Charles Town, WV 25414 Zoned: Rural
- 46. TM 16 PAR 132
  Owner: Mark A. Mann & Pamela M. Phillips-Mann
  Address: 41 Abbington Court
  Charles Town, WV 25414
  Zoned: Rural
- 47. TM 16 PAR 133 Owner: Jondra W. Kershner Address: 26 Sheffield Court Charles Town, WV 25414 Zoned: Rural
- 48. TM 16 PAR 17.1Owner: William A. CulleyAddress: PO Box 217Summit Point, WV 25446Zoned: Rural

- 49. TM 16 PAR 20 Owner: Aimee D. Whitlock Real Estate Trust Address: 39 Terrace View Charles Town, WV 25414 Zoned: Rural
- 50. TM 16 PAR 21 Owner: Thomas W. & Eileen V. Wall Address: 75 Terrace View Charles Town, WV 25414 Zoned: Rural
- 51. TM 16 PAR 22 Owner: George J. & Joyce O. Hussion Address: 95 Terrace View Charles Town, WV 25414 Zoned: Rural
- 52. TM 16 PAR 23Owner: Barbara A. Bittinger Address: 123 Terrace View Charles Town, WV 25414Zoned: Rural
- 53. TM 16 PAR 45
  Owner: Eastland Homeowners Assoc. Inc.
  Address: PO Box 21
  Rippon, WV 25441
  Zoned: Rural
- 54. TM 16 PAR 12.4
  Owner: David A. Turner & Allyson R. Marley
  Address: PO Box 1072
  Harpers Ferry, WV 25425
  Zoned: Rural
- 55. TM 22 PAR 78Owner: Peter & Mihyun Schipper Address: 30 Green Valley Drive Charles Town, WV 25414Zoned: Rural

- 56. TM 22 PAR 79
  Owner: Gerald H. & Patricia A. Magnone
  Address: PO Box 1311
  Charles Town, WV 25414
  Zoned: Rural
- 57. TM 22 PAR 83Owner: Leonard & Linda Dearstine Address: 40 Windsor Drive Charles Town, WV 25414Zoned: Rural
- 58. TM 22 PAR 1.10
  Owner: Yvonne E. & Gregory M. Zabrucky
  Address: 5952 Kabletown Road
  Charles Town, WV 25414
  Zoned: Rural
- 59. TM 22 PAR 1.4 Owner: Steve I. & Kathy D. Davis Address: 5908 Kabletown Road Charles Town, WV 25414 Zoned: Rural
- 60. TM 22 PAR 1.5 Owner: Curtiss B. Miller Address: 19 Mt. Hammond Lane Charles Town, WV 25414 Zoned: Rural

- 61. TM 22 PAR 98
  Owner: Norman D. II & Robyn L.
  Ballenger
  Address: 20 Mount Hammond Lane
  Charles Town, WV 25414
  Zoned: Rural
- 62. TM 16 PAR 19Owner: Ronald D. Rissler Et al. Address: 616 Uinta Farm Lane Charles Town, WV 25414Zoned: Rural
- 65. TM 5 PAR 2 Owner: Casey Family Land Trust Address: 118 Country Club Circle Winchester, VA 22602 Zoned: Rural
- 66. TM 22 PAR 69Owner: Jarret M. & Shelly K. Carver Address: 20 Green Valley Drive Charles Town, WV 25414
- 67. TM 16 PAR COMMOwner: Owner: Eastland HomeownersAssoc. Inc.Address: P.O. Box 21Rippon, WV 25441

#### **3.0 TRAFFIC IMPACT DATA**

**The Average Daily Traffic (ADT) of Adjoining Road (at proposed entrance)** - Berryville Pike (US Route 344) carries approximately 14,003 ADT near Wheatland and Roper North Road Intersection. The roadway transitions from two lanes to four lanes near this intersection and has a posted speed of 55 mph. Kabletown Road (CR 25) carries around 1,630 ADT (West Virginia Division of Transportation Data Viewer). The roadway is one lane in each direction with a posted speed limit of 40 mph. The pavement width is approximately 20 feet with two 10-foot travel lanes, with variable width shoulders from 0 feet to 1.5 feet. The minimum right-of-way width is 30 feet (15 feet from centerline). The road surface appears to be in good condition. Peak period traffic volumes do not exceed 180 vehicles for both directions. Peak traffic periods are 7 to 8 am and 4 to 5 pm.

Concept Plan Submittal Materials - Wild Hill Solar Project (0101-19-0344-001), June 9, 2022

Potesta & Associates, Inc. (POTESTA) contacted the West Virginia Division of Highways' (WVDOH) District 5 office and requested that they review this location to determine if this would be a viable entrance location. A stake was placed at the proposed entrance and WVDOH verified, by viewing this stake in the field, that this location should be viable and relayed this information to POTESTA on June 3, 2020. POTESTA also conducted a sight distance profile and determined that this entrance meets the WVDOH sight distance requirements.

<u>**Trip Generation**</u> – "Solar Facility" is not listed on table 24-119.B.5.b, nor is it included in the International Transportation Manual; therefore, trip generation data developed for a previous EDF Solar facility project will be presented for this project.

#### Per "EDF Morris Ridge Solar Farm – Effect on Transportation Report, April 2020"

#### Maintenance and Operations Traffic Trip Generation

Due to the limited personnel, the operations and maintenance of the Project will result in minimal vehicular traffic generation. Two to three utility type maintenance vehicles would be anticipated to support the site operations. These vehicles would be anticipated to generate an average of two trips per day with a maximum of four trips per day. The maintenance and operations work efforts would generally require vehicular trips to the site outside of the AM and PM peak traffic periods. Occasional water delivery trucks (one per week) would be anticipated to the Project but the need would be sporadic, and their delivery times would vary during the day and would generally be outside of the AM and PM peak traffic periods. Typical operation and maintenance procedures for the facility would include:

- Inspection of each of the solar panel sites on a frequency of at least once per week.
- Informal site inspections and corrective maintenance for the facility occurring on an as-needed basis.
- Conducting ground maintenance of the facility during growing season months; a couple times per year if mechanically mowing, or multiple times per week if managing alternate strategies such as sheep grazing.

Due to the minimal trips generated by the maintenance and operations of the facility, the existing low volume of traffic along the site access roadways, and the rural nature of the site (not an urbanized congested location), the traffic impacts on the roadway operating level of service will be negligible.

#### **Trip Generation for Wild Hill**

- Vehicles per Day = 2-3 vpd
- Maximum and Average Trips Per Day = Max-4 vpd / Ave-2 vpd

#### Highway Problem Area

None within a 1-mile radius of the project (Envision Jefferson 2035 Comprehensive Plan, dated 2015)

#### Nearest Key Intersections

- (1) Route 25/3 Shennandale Road with Route 25 Kabletown Road (secondary) from 0.8 mile from proposed entrance.
- (2) Route 115 Shennandale Road (Primary) with Route 25 Kabletown Road (secondary) from 1.8 miles from proposed entrance. (Envision Jefferson 2035 Comprehensive Plan, dated 2015)

#### 4.0 STORMWATER NARRATIVE

Stormwater Management for this solar project will follow the amended Jefferson County Stormwater Management Ordinance, Article I D.2.h for Solar Energy Facilities. A stormwater Management report with documentations and drawings will be submitted to Jefferson County for review and approval.

The solar project will also develop the required Erosion and Sediment Control Plan Stormwater Pollution Prevention Plan, and Groundwater Protection Plan to make application to register for the West Virginia Department of Environmental Protection National Pollution Discharge Elimination System (NPDES) permit for this construction.

The solar facility will be constructed on agricultural land, normally planted in row crops, hay/straw and used for grazing. The solar facility will be seeded with pollinator friendly and resistant ground cover such white clover or equivalent and will not be used for grazing.

#### 5.0 LANDSCAPING AND GROUND COVER PLAN

Disturbed areas will be seeded with either white clover (*trifolium Repens*) or Birdsfoot Trefoil (*Lotus Corniculatus*) for pollinator friendly and resistant ground cover. The permanent solar facility's entire project boundary area will be seeded with these pollinator friendly and resistant ground cover to also extend under each Photo Voltaic (PV) module. The PV modules will be arranged to allow this growth of vegetation beneath and between the rows of PV modules. Vegetal cover shall have a minimum of 90 percent or better uniform coverage and shall not be subject to chemical fertilization and herbicides/pesticides. Existing vegetations and trees will be retained to the extent possible at outside property boundaries and buffer areas to assist in natural screening.

#### 6.0 DECOMMISSIONING PLAN OUTLINE\*

#### DECOMMISSIONING

# DECOMMISSIONING DURING CONSTRUCTION, ABANDONMENT, OR COMPLETION OF PROJECT

- Completed useful life of the project (30 years life expected) or if the project is deenergized for greater than six months, decommissioning plan will go into effect.
- Or unlikely event that construction cannot be completed.

#### DECOMMISSIONING AFTER CEASING OPERATION

• Operational lifespan of 30 or more years. Proper maintenance, component replacement and repowering can extend life.

#### GENERAL ENVIRONMENTAL PROTECTION DURING DECOMMISSIONING

 General environmental protection and mitigation measures would be implemented. (similar to construction phase).

#### PRE-DISMANTLING ACTIVITIES

- De-energized and isolated from all external electrical lines.
- Staging areas would be delineated at appropriate locations.
- Temporary erosion and sedimentation control measures will be implemented.

#### EQUIPMENT DISMANTLING AND REMOVAL

Solar Panels

- Each panel will be disconnected and unfastened from the mounting rack and removed.
- Fixed racks be disassembled and removed from the site.
- The pilings will be removed.
- The metal racking components may be reused or recycled for future use.

Electrical Equipment and Collector System Inverters

- Will be removed and shipped off-site for eventual reuse or disposal.
- The piles and associated foundations will be removed from the site.
- Decommission up to the point of interconnection.

#### Substation

- All aboveground structure and electrical equipment will be removed.
- Land to be restored to original grade.
- Concrete foundations removed to at least 3 feet below original grade.
- All granular and geotextile materials would be removed.

Access Roads

- All access roads will be removed.
- All granular and geotextile materials would be removed from the site by dump truck.

Storage Infrastructure and Perimeter Fence

- Storage and operation infrastructure (e.g., temporary construction trailer) will be removed from the site by truck.
- Foundations associated with these facilities would be removed to a depth of at least
   3 feet below original grade.
- Perimeter fencing would be removed and recycled or reused unless landowner(s) prefers to retain portions of fence.

SITE REHABILITATION/RESTORATION - Rehabilitation Plan will develop at the time of decommissioning. To include:

- Agricultural areas will be restored to their original condition, as appropriate.
- Access roads and other compacted areas to be de-compacted, and returned to pre-construction condition, or natural grade as appropriate.
- Disturbed areas will be immediately returned to agricultural uses.
- Erosion and sediment control left in place until ground cover is fully established.

Water Quality

• Jefferson County to be consulted for any decommissioning work near streams/waterbodies.

Agricultural Lands

• Any agricultural lands that have become compacted would be de-compacted and returned to pre-construction condition, or natural grade as appropriate.

Spills

• Strict spill prevention and spill response procedures will be in place

#### MANAGING EXCESS MATERIALS AND WASTE

Typical waste materials and modes of disposal:

- Concrete foundations Crush and recycle as granular material.
- Solar Panels Reuse or recycle.
- Steel and aluminum racks and mounts Salvage for reuse or recycle for scrap.
- Cabling Recycle.
- Inverter step-up transformers, inverters, and circuit breakers Salvage for reuse or recycle for scrap.
- Granular material Reuse or dispose in landfill.
- Oils/lubricants Recycle.
- Hazardous materials Dispose through licensed hauler.

- Geotextile material Dispose in landfill.
- Miscellaneous non-recyclable materials Dispose in landfill.

#### EMERGENCY RESPONSE AND COMMUNICATIONS PLANS

- Environmental Procedures.
- Occupational Health and Safety Procedures.
- Health and Safety Plan considering both public and occupational health and safety issues.

\*Decommissioning plan will adhere to any plan approved by the Jefferson County Commission.