

Town of Windham

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MEMO

DATE: December 23, 2020

TO: Windham Planning Board
FROM: Jennifer Curtis, Planner
Cc: Amanda Lessard, Planning Director
Silas Canavan, PE, Walsh Engineering Associates
Development Review Team

RE: 20-23 WH02 Solar - Major Site Plan & Conditional Use, Final Plan Review
Planning Board Meeting & Public Hearing: December 23, 2020

Overview –

This application is for a new a 19.99-acre, 5MW solar project on a portion of the 60 acre undeveloped property with frontage on Swett Road. The site is currently undeveloped and wooded. A short gravel access drive with a turnaround off of Swett Road is proposed to serve the project. The project would tie-in to the utility line located on Swett Road.

Public Utility Facility is a conditional use in the Farm District. In accordance with Section 516.B the Planning Board shall serve as the Conditional Use review authority.

The project was last before the Planning Board on December 14, 2020. At that meeting, the Board commented that the project was well buffered from adjacent properties with vegetation. A public hearing was initiated. No members of the public commented at that time. The public comment period was left open to continue the hearing to the next meeting. No written comments have been received as of the date of this memo. Since that meeting, the project has been revised to change the hours when construction may occur, the bottom height of the perimeter fence has been raised to allow for passage of small terrestrial animals, and the project has received DEP and Army Corps permits.

Tax Map: 6 Lot: 60 Zone: Farm (F)

SITE PLAN REVIEW

Staff Comments:

1. Waivers: None
2. Complete Application: Staff find the application complete:

MOTION: The Final site plan and Conditional Use application for project 20-23 WH02 Solar is found complete in regard to the submission requirements based on the application checklist, but the Planning Board retains the right to request more information where review criteria are not fully addressed.

3. Public Hearing: A public hearing is scheduled for December 14, 2020. A public hearing is required for Conditional Use review by §516.G.
4. Site Walk: A Planning Board site walk, open to the public, took place on October 19, 2020.

Findings of Fact and conclusions for the

Windham Planning Board,

MOTION: The Site Plan and Conditional Use application for 20-23 WH02 Solar on Tax Map: 6 Lot: 60 is to be (approved with conditions/denied) with the following findings of fact and conclusions.

FINDINGS OF FACT

Review Authority

Per the Town of Windham Land Use Ordinance, at §803.A.1, and §805.A.2., the individual or cumulative Development of one (1) acre or more land is subject to review by the Planning Board.

Utilization of the Site

- The applicant submitted a 25-year real estate lease option agreement for the subject parcel, dated April 17, 2020, with the landowners, Laurence A and Kathryn A Clark.
- The proposed site location is undeveloped and currently mostly wooded.
- The site will be occupied by approximately 20 acres of ground mounted solar panels and an electrical equipment area near the proposed access road with turnaround, surrounded by a security fence that may be raised up slightly to allow small wildlife to travel underneath.
- The area under and around the solar panels will be returned to a vegetated meadow condition, mowed no more than twice per year.
- Drainage patterns will remain generally the same.

- Two streams, multiple wetlands, and three potential vernal pools were identified. The applicant is conservatively assuming the vernal pools are significant, and applying setbacks accordingly.
- A Maine DEP NRPA PBR for work adjacent to natural resource, and a Tier 1 NRPA Permit for wetland impacts must be submitted with the final application.
- The applicant submitted applications to DEP for NRPA PBR on November 18, 2020. The 14-day review period expires on December 4, 2020.
- The applicant applied for a Tier 1 NRPA Permit for wetland impacts.
- DEP issued a Tier 1 NRPA permit (#L-28911-TB-A-N) for the wetland impacts on December 23, 2020. The permit was reviewed by Mark Arienti, P.E., Town Engineer. Mark had no comments.
- The applicant states that the Army Corps considers the type of wetland impacts they are proposing to be exempt. The applicant will send copy of the Tier 1 NRPA to the Army Corps.
- The Army Corps issued a permit (# NAE-2020-03015) on December 23, 2020, authorizing the proposed filling of freshwater wetland. The permit was reviewed by Mark Arienti, P.E., Town Engineer. Mark had no comments.
- The project is not located within an essential or significant habitat as mapped on the Beginning with Habitat website and is not located over a significant sand and gravel aquifer as mapped by the Maine Geological Survey.
- The MHPC requested additional information from the applicant to determine if the project will have impacts on any historic or archeological resources.
- On December 10, 2020, the applicant submitted a memo dated December 2, 2020 stating that there are no National register eligible properties on or adjacent to the parcels, and the project area is not considered sensitive for archeological resources.
- It was discussed at the Development Review Team Meeting that there is likely to be ledge near the surface in the area of the project, and the applicant indicated they were planning to use an anchor system that would still work with ledge.
- With regard to carbon footprint, the applicant supplied a carbon footprint analysis in the Final Plan application, and the following summary: “It was determined that the project will result in clearing of approximately 720± trees, but the carbon offset of the solar project is equal to between approximately 54,000± and 295,000± trees. Therefore, conservatively, the existing trees onsite produce only 1.3% of the carbon offset that the proposed solar array will produce.”

Vehicular and Pedestrian Traffic

- The project site has frontage on Swett Road, a gravel surface public street, and would have a small gravel access drive with a turnaround.
- Sight distances for the entrance must be shown on the final plan.
- The applicant states that the minimum sight distance is 335', and presumed the speed limit for Swett Road, as 25 MPH, as it was not posted. The site distance required for a 25MPH road is 250'.

- In an email dated December 7, 2020, Bill Andrews, Windham Police Captain, interprets the lack of a posted speed, and lack of development in the area, to result in the speed limit to default to 45MPH.
- The applicant states that they do not have adequate sight distances to accommodate a 45MPH speed limit. The applicant must submit a written waiver request of 812.B.2.(a).
- The applicant included information on typical construction traffic, estimated at a total of 2, 120 vehicle trips (a trip is counted for each direction, so a trip to the site and from it is counted as 2, so the number of vehicles leaving and entering is half of the total trips). The construction period is estimated at 3-5 months.
- The application states that the project would generate only a few trips per month.
- A traffic impact study is not required as the project will not generate fifty (50) or more trips during the a.m. or p.m. peak hour.
- The project will need an entrance permit from the Department of Public Works. The Director of Public Works recommended a performance guarantee amount to cover the costs to repair any damages to Swett Road that occur due to construction.
- The Final Plan includes a note “THE CONTRACTOR SHALL DOCUMENT THE CONDITION OF SWETT ROAD WITH PHOTOGRAPHS AND VIDEO PRIOR TO CONSTRUCTION AND AT THE COMPLETION OF THE PROJECT. IF DAMAGE TO SWETT ROAD FROM CONSTRUCTION VEHICLE TRAFFIC IS IDENTIFIED, THE ROAD SHALL BE REPAIRED TO ITS EXISTING CONDITION AT THE CONTRACTOR’S EXPENSE”
 - Staff recommend the note be revised to “...ROAD SHALL BE REPAIRED TO ITS PRIOR CONDITION...”
 - A revised version of the final plan includes the proposed change.

Sewage Disposal, Groundwater Impacts, Hazardous Materials

- The development is not proposing a private subsurface wastewater disposal (septic) system.
- No storage or handling of hazardous materials is proposed on site.
- In an email dated December 2, 2020, Jordan Belknap, on behalf of the applicant, commented that “The solar panels are not classified as hazardous waste, and are manufactured to meet EPA requirements for toxicity based on the Toxicity Characteristic Leaching Procedure (TCLP). The modules are silicon based and primarily composed of glass, aluminum, and silicon.”

Stormwater Management

- Per Section 812.E, a stormwater plan needs to be submitted that meets the standards DEP Chapter 500 Stormwater Management.
- A Stormwater Permit required by Maine DEP must be submitted with the final plan submission.
- The applicant applied for a Maine DEP Stormwater Permit by Rule (PBR) on November 18, 2020.

- Town Engineer, Mark Arienti, P.E., commented in an email on December 1, 2020 “The stormwater management report includes an analysis of peak flow rates at the site that indicates that post-development peak flow from the site will be less than or equal to pre-development flows as required by the Town’s Site Plan Review Ordinance. This is achieved through the construction of two detention ponds, three level spreaders, a forested buffer, and several culverts and rip-rap inlet and outlet aprons.”, and “The report includes a post-construction Inspection and Maintenance Plan for Stormwater Management facilities that appears to adequately address the maintenance and upkeep of the proposed facilities.” Mark also determined that the amount of impervious surface associated with the array is well below an acre.
- The proposed development is located within the Black Brook and Colley Wright Brook watersheds, neither of which are a watershed of a lake most at risk from new development as designated in Chapter 502: Direct Watersheds Of Lakes Most At Risk From New Development, And Urban Impaired Streams of the Maine Department of Environmental Protection, and therefore does not require independent review per 807.F.6.
- Town Engineer, Mark Arienti, P.E., commented on the plan set in an email on December 1, 2020, with a variety of comments related to stormwater management related items, particularly relating to elevations of inlets, outlets and like details. The comments were satisfactorily addressed by the applicant, as indicated in a follow up email from Mark on December 4, 2020.

Erosion Control

- A soil erosion and sediment control plan must be submitted with the final plan set. This may take the form of a printed best management practices plan rather than on-the-ground designation of erosion control measures.
- The Final Plan includes an Erosion and Sediment Control Plan (sheet C3, notes and details C4) showing the location of silt fence and erosion control berms, including double rows within 75’ of stream and wetland, and a stabilized construction entrance.

Utilities

- §812.I requires that new utility facilities shall be screened from view to the extent feasible, and utility lines shall be placed underground.
- At the Development Review Team meeting the applicant stated that the project would tie-in to existing power lines on Swett Road.
- Equipment will be monitored remotely at all times. Emergency personnel will have a plan for access.

Financial & Technical Capacity

- As part of the next submission, the applicant must show an estimate the total project costs and submit evidence of financial capacity to complete the project as proposed.
- The Final Plan application states that the project cost is estimated at \$8.4 Million.

- The Final Plan included a financial plan from the developer stating that they plan to bring in a third party investor to own, operate and maintain the project once it reaches the construction phase, and also a statement that the developer has financial capacity through an affiliated entity (parent company, TurningPoint Energy). On December 10, 2020, the applicant submitted a letter stating that the parent company has sufficient capital on balance sheets to cover the costs of project development. The letter included an attached letter from bank that has a relationship with the parent company, stating that the parent company has more than 20% of the project costs, as evidence of a cash equity commitment. Considering
- The applicant submitted a record from the Maine Bureau of Corporations indicating that the applicant is a foreign limited liability company in good standing as of September 3, 2020. Staff find that the limited information provided for financial capacity is not concerning due to the requirements for the applicant to provide an acceptable performance guarantee for construction, and because of the Planning Board's practice of requiring a surety for decommissioning for large solar projects.
- Evidence of technical capacity must be provided as part of the Final Plan submission.
- The applicant has retained the services of qualified professionals, to design the project and perform permitting consultation. The project was surveyed by Jones Associates, Inc., and designed by Civil Engineer Silas Canavan, PE at Walsh Engineering Associates, Inc.

Impacts to Adjacent/Neighboring Properties

- A landscaping plan must be submitted as part of the final plan set.
- The applicant is proposing an evergreen screening buffer along the western portion of the project.
- Any proposed site lighting must be shown on Final Plan, and details of fixtures must be included in the submission.
- The Final Plan indicates there will be no exterior lighting.
- No construction activities are permitted between 10pm and 6am.
- Town Engineer, Mark Arienti, P.E., commented in an email on December 1, 2020 that Note 8 on plan sheet C1 indicated construction activities may not occur between 10PM and 6AM. He suggested that due to the residential nature of the surrounding area, the applicant should consider limiting construction to between 7AM and 8PM.
- A security chain link fence is proposed around the perimeter of the solar equipment.
- During the Development Review Team Meeting it was noted that there may be neighbors in the newly constructed residential development to the south that would have concerns about visibility, and viewshed analysis to help determine the visual impacts to those neighbors would be helpful for final review.
- The Final Plan indicates that the applicant will maintain a total of 55' of vegetated buffer along Swett Road. The residential development to the east will be buffered by more than 200' of existing vegetation that will remain.
- The applicant submitted view plan sections demonstrating that there will be no undue adverse viewshed impacts to the abutter at 17 Swett Road, Swett Road users, or the easterly abutters.
- The Final Plan application states that there will be no exterior lighting installed.

Conformity with Local Plans and Ordinances

1. Land Use

- The project meets the minimum lot size and frontage requirements of the F zoning district.
- The minimum front setback for non-residential use is a minimum landscaped buffer strip of 15'. Newly implemented Farm District streetscape landscape requirements vary depending on tree density. The applicant is proposing a 55' natural vegetated buffer. There is significant vegetative growth in the front setback area as of the date of this memo; however, the applicant must create additional landscaped buffer if needed.
- The proposed public utility facility use is conditional in the Farm District if it meets the standards Section 516.

2. Comprehensive Plan

- This project meets the goals and objectives of the 2017 Comprehensive Plan. The project is located in the rural area of the Future Land Use Plan.

3. Others:

- Conditional Use, Section 516. The project must comply with the review criteria. Conditional Use review criteria are listed following the Site Plan Review criteria.

CONCLUSIONS

1. The plan for development **reflects** the natural capacities of the site to support development.
2. Buildings, lots, and support facilities **will** be clustered in those portions of the site that have the most suitable conditions for development.
3. Environmentally sensitive areas, including but not limited to, wetlands; steep slopes; flood plains; significant wildlife habitats, fisheries, and scenic areas; habitat for rare and endangered plants and animals; unique natural communities and natural areas; and, sand and gravel aquifers **will** be maintained and protected to the maximum extent.
4. The proposed site plan **has** sufficient water available for the reasonably foreseeable needs of the site plan.
5. The proposed site plan **will not** cause unreasonable soil erosion or a reduction in the land's capacity to hold water so that a dangerous or unhealthy condition results.
6. The proposed use and layout **will not** be of such a nature that it will make vehicular or pedestrian traffic no more hazardous than is normal for the area involved.
7. The proposed site plan **will** provide for adequate sewage waste disposal.
8. The proposed site plan **conforms** to a duly adopted site plan regulation or ordinance, comprehensive plan, development plan, or land use plan.
9. The developer **has** adequate financial capacity to meet the standards of this section.

10. The proposed site plan **will not** alone or in conjunction with existing activities, adversely affect the quality or quantity of ground water.
11. The proposed site plan **will** provide for adequate storm water management.
12. The proposed location and height of buildings or structure walls and fences, parking, loading and landscaping shall be such that it **will not** interfere or discourage the appropriate development in the use of land adjacent to the proposed site or unreasonable affect its value.
13. On-site landscaping **does** provide adequate protection to neighboring properties from detrimental features of the development that could be avoided by adequate

CONDITIONS OF APPROVAL

1. Approval is dependent upon, and limited to, the proposals and plans contained in the application dated September 8, 2020, as amended December 22, 2020 and supporting documents and oral representations submitted and affirmed by the applicant, and conditions, if any, imposed by the Planning Board, and any variation from such plans, proposals and supporting documents and representations are subject to review and approval by the Planning Board or the Town Planner in accordance with Section 814.G. of the Land Use Ordinance.

2. **Abandonment or Decommissioning**

Removal Requirements: At such time that the ground-mounted solar energy system described in this approval has reached the end of its useful life or has been abandoned consistent with the Abandonment description within this condition of approval, it shall be removed. The owner or operator shall physically remove the installation no more than 150 days after the date of discontinued operations. The owner or operator shall notify the Planning Board by certified mail of the proposed date of discontinued operations and plans for removal. Decommissioning shall consist of:

- (a) Physical removal of all solar energy systems, structures, equipment, security barriers and transmission lines from the site.
- (b) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
- (c) Stabilization or re-vegetation of the site as necessary to minimize erosion. The Site Plan Review Authority may allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

Abandonment: Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, the large-scale ground-mounted solar energy system shall be considered abandoned when it fails to operate for more than one year without the written consent of the Site Plan Review Authority. If the owner or operator of the solar energy system fails to remove the installation in accordance with the requirements of this section within 150 days of abandonment or the proposed date of decommissioning, the town retains the right, after the receipt of an appropriate court order, to enter and remove an abandoned, hazardous, or decommissioned large-scale ground-mounted solar energy system. As a

condition of Site Plan approval, the applicant and landowner shall agree to allow entry to remove an abandoned or decommissioned installation.

Surety: The applicant will provide financial assurance for the decommissioning costs in the form of a performance bond, surety bond, 'evergreen' letter of credit, or other means acceptable to the Town, for the total cost of decommissioning. The applicant will have the financial assurance mechanism in place prior to construction and will re-evaluate the decommissioning cost and financial assurance at the end of years, five, ten, and fifteen. Every five years after the start of construction, updated proof of acceptable financial assurance must be submitted to the Town for review.

CONDITIONAL USE REVIEW

FINDINGS OF FACT

Review Authority

- Per the Windham Land Use Ordinance at §516.B.2.B, the Planning Board has Conditional Use review authority of a project under review as a Major Site Plan.

Property Value

- The use will not impact the value of surrounding properties. Staff recommends a performance guarantee in the amount of the cost of decommissioning the facility in the event the facility is ever abandoned and the Town would need to remove the equipment. See COA #2.

Wildlife Habitat

- The applicant consulted the Maine Department of Inland Fisheries and Wildlife (MDIFW) as to the presence of endangered and threatened species in the project area. There were no species identified, outside of the potential for Northern Long Eared Bats to live in the trees there, as they may live essentially anywhere there are trees. The applicant will restrict tree clearing in the months of June and July as Required by MDIFW.
- A small amount of clearing is proposed within the 250' potential vernal pool buffers (PVP1 and PVP2), but the clearing is less than the DEP's allowable threshold of 25%. One wetland of 5,471 sf will be filled. The permits for clearing in the PVP buffer and filling the wetland have been submitted to DEP. The approval from DEP for NRPA Tier 1 permit was received on December 23, 2020. See Site Plan Review – POLLUTION.
- The project, as proposed, will not impact significant wildlife habitat or spawning grounds identified by the MDIFW or by the Town's Comprehensive Plan.
- At the meeting on December 14, 2020 the applicant agreed to raise the bottom height of the fence to 6" to allow small terrestrial animals to pass through.

Botanical Species

- The applicant consulted the Maine Natural Areas Program to determine if the site was known to contain Rare or Endangered botanical species. MNAP did not identify the site

as an area containing Rare or Endangered species. No rare or endangered species are identified in this area by the Town of Windham's Comprehensive Plan.

Potable Water

- The proposed project does not require a water supply.

Sewage Disposal

- The proposed project does not require sewage disposal.

Traffic

- See Site Plan Review – the applicant demonstrated adequate sight distance. See Site Plan review - TRAFFIC

Public Safety

- The proposed project is not anticipated to require frequent or extensive support from the Town's public safety services

Vibration

- The applicant stated that no blasting will be required for installation. No vibration will be generated by the development.

Noise

- The applicant states that no construction activities will take place outside the hours of 10PM and 6AM. Town Engineer, Mark Arienti, P.E., commented in an email on December 1, 2020 that Note 8 on plan sheet C1 indicated construction activities may not occur between 10PM and 6AM. He suggested that due to the residential nature of the surrounding area, the applicant should consider limiting construction to between 7AM and 8PM.
- §516.S requires reduced sound pressure levels during the hours between 10PM and 7AM.
- At the meeting on December 10, 2020, the applicant agreed to include a note on the Final Plan that limits construction hours to between 7AM and 8PM. The note is on the Final Plan dated December 22, 2020.

Off-Street Parking and Loading

- See Site Plan Review

Odors

- The project will not produce noxious odors.

Air Pollution

- The project will not produce air pollution.

Water Pollution

- See Groundwater Impacts, Stormwater Management, and Erosion Control above, under Site Plan Review

Erosion and Sediment Control

- See Site Plan Review

Hazardous Material

- See Site Plan Review
- Town Engineer, Mark Arienti, P.E., commented that disposing of the panels was a possible concern, but he did not find any evidence that the type of conditions that are anticipated to occur at the project during operations would create a potential hazard.

Zoning District and Performance Standards

- See Site Plan Review

Solid Waste Management

- See Site Plan Review

CONCLUSIONS

1. The proposed use **will not** depreciate the economic value of surrounding properties.
2. The proposed use **will not** damage significant wildlife habitat or spawning grounds identified by the Maine Department of Inland Fisheries and Wildlife or by the Town of Windham's Comprehensive Plan.
3. The proposed use **will not** damage rare or endangered botanical species as identified by the Maine Department of Conservation or by the Town of Windham's Comprehensive Plan.
4. The proposed use **has** access to potable water and **will not** burden either a groundwater aquifer or public water system.
5. The proposed use **has** adequate capacity to dispose of sewage waste.
6. The proposed use **has** adequate sight distance as established by current Maine DOT Highway Entrance and Driveway Rules.
7. The proposed use **will not** overburden police, fire and rescue services, as determined by response time, accessibility to the site of the proposed use, and numbers and types of emergency personnel and equipment presently serving the community.