

Town of Windham

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MEMO

DATE: April 9, 2020

TO: Windham Planning Board
FROM: Jennifer Curtis, Planner
Cc: Amanda Lessard, Planning Director
Josh Baston, ReVision Energy
Development Review Team

RE: 20-02 Windham Landfill Solar - Major Site Plan Final Plan Review
Planning Board Meeting & Public Hearing: April 13, 2020

Overview –

ReVision Energy is applying to erect 1,344 ballasted solar panels arranged in 13 rows with 25 feet between each row. The total project area covers about 1.7 acres and will be sited on a Town-owned closed landfill off Enterprise Drive in North Windham. The applicant is proposing the project at the request of the Town of Windham, based on the Solar Power Purchase Agreement signed by the Town in December of 2019. The agreement establishes prices for the electricity the Town will purchase from the production of the solar array, and an option to purchase it in the 6th year and thereafter. The Town expects to save money on electricity through this agreement, which is projected to generate 682,000 MWh each year; enough to power nearly all of the Town's municipal facilities. The project will include a utility pad for a new transformer installed off of Enterprise Drive, which will be connected to existing CMP medium voltage infrastructure. The entire solar array will be fenced in at the edge of the capped landfill.

The solar array is considered a Public Utility Facility is an allowed use in the Commercial District 1 (C-1) zone.

The project was last before the Planning Board on February 10, 2020 for Sketch Plan review. There are no major changes to the design since that time. At that meeting the Planning Board discussed a waiver request for utility lines to be buried underground, expressed a preference for the perimeter fence to be black vinyl coated to reduce visibility, and overall expressed that it was a good project with no traffic, low impact, and was a good use of the site. Updates since that meeting are underlined in the memo below.

Staff note that a utility pad for a new transformer will be installed off of Enterprise Drive. The location may change, based on input from CMP. The Planning Board may want to consider potential visual impacts.

Tax Map: 21 Lot: 19 Zone: Commercial I (C1)

SITE PLAN REVIEW

Staff Comments:

1. Jurisdiction: *Due to the acreage of proposed development, the project is classified as a Major Site Plan, which the Planning Board is authorized to review and act on by Section 803.A.1 of the Town of Windham Land Use Ordinance.*
2. Title, Right, or Interest: *The Town of Windham owns the landfill property proposed for development. The Town of Windham and ReVision Solar Impact Partners, LLC have entered into a Solar Power Purchase Agreement, authorizing the proposed development.*
3. Waivers: *At the February 10, 2020 meeting the Planning Board advised the applicant to provide information on why the waiver is needed.*

Performance Standard 812.I requiring that utility lines shall be placed underground. The applicant states that CMP will have some say in determining if lines will need to be underground or overhead to connect to the existing electrical distribution, and that Maine DEP will not allow any excavation into the landfill earth cover, which may require utility lines to be located overhead instead of below ground. *Staff find that the applicant is intending to comply to the extent practicable, and bury utility lines on top of the landfill cap, if conditions allow for it.*

4. Complete Application: *Staff find the application complete with regard to the submission checklist*

MOTION: The site plan application for project 20-02 Windham Landfill 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.

5. Public Hearing: A public hearing will be held at the meeting on April 13, 2020.
6. Site Walk: At the February 10, 2020 meeting, the Planning Board decided not to hold a site walk.

Findings of Fact and conclusions for the

Windham Planning Board,

The Site Plan application for 20-02 Windham Landfill Solar on Tax Map: 21 Lot: 19, and 26 is to be **(approved with conditions/denied)** with the following findings of fact and conclusions.

FINDINGS OF FACT

Utilization of the Site

- The Windham Landfill site covers approximately 20 acres total, where 10 was used to dispose of municipal solid waste. The landfill operated from the 1960s until 1988. The landfill was capped with 18 inches of impermeable soil and a PVC membrane. There are vents for venting landfill gas, which are spaced 50-100 feet apart.
- The proposed project area is 1.7 acres where 1,344 solar panels would be arranged in 13 rows, spaced 25 feet apart, and connected to 7 inverters. The output of each inverter will connect to the main disconnect panel with a 100A circuit breaker. The main disconnect panel and the metering equipment will be located adjacent to the utility service.
- The panels will be ballasted in poured concrete on top of the landfill, so there will be no penetration into the landfill cap. Gravel will be placed between the top soil layer and each ballast block.
- A 6' tall chain link fence would surround the panel array, beyond the edge of the landfill cap.
- Sappi currently holds an easement on the site extending from Roosevelt Trail along the old dump road to the CMP corridor, as partially delineated on the Sketch Plan. The Town is working with Sappi to release the easement. A recorded easement release is to be submitted with the Final Plan.
- The Town of Windham secured a Quitclaim Deed from Sappi for their interest in the easement on February 20, 2020.

Vehicular and Pedestrian Traffic

- The site is accessible from Enterprise Drive. Once construction is completed, there would be very infrequent trips to the site; only as required by facility maintenance.
- There are no new roads or driveways proposed at the site.
- The Final Plan should include a description of parking needs there will be, and how they will be met.
- The Final Plan depicts a 12' wide gravel access road that will be improved from an existing curb cut and dirt parking area. There will be a gate at the end of the road, limiting access to the solar arrays.

Sewage Disposal and Groundwater Impacts

- The development is not proposing a private subsurface wastewater disposal (septic) system.

- The development will require a Maine DEP Permit to authorize the project work taking place on the landfill, to ensure that it does not result in environmental impacts. The final plan submission must include the DEP Permit.
- The applicant and Town of Windham jointly submitted an application for Solid Waste Project Minor Revision to Maine DEP. Staff determined that a Solid Waste Project Minor Change Permit from Maine DEP was not a required submission item for Final Site Plan Review, and, based on the proposed application to DEP, is not likely to affect compliance with the Town of Windham Land Use Ordinance standards. If it does affect compliance with the standards, the applicant will be required to seek approval of those changes, per 814.F. of the Windham Land Use Ordinance. DEP approval is required prior to the start of construction.

Stormwater Management

- Per Section 812.E, a stormwater plan needs to be submitted that meets the standards DEP Chapter 500 Stormwater Management. Any Stormwater Permit required by Maine DEP must be submitted with the final plan submission.
- The final application submission states that this project will not meaningfully impact the existing drainage of the landfill cap which has been designed to shed rather than absorb rainwater. Maine DEP has defined that the footprint of solar panels on ground mounted solar arrays does not create additional impermeable surface on a land parcel as the panels do not inhibit the growth of vegetation underneath the array.
- Town Engineer Mark Arienti, P.E. reviewed the Final Plan submission and commented on April 2, 2020: “Although it is generally accepted that capped landfills can be considered “impervious” for stormwater compliance purposes, the 8,736 SF of concrete ballast blocks that support the panels will have some impact on how drainage occurs on the landfill surface; currently the vegetated surface does allow for some absorption and attenuation whereas the blocks will not. Is this a concern and if so are there any mitigative measures that should be considered.”
- In a response to comments on April 7, 2020, the applicant submitted a letter from Dan Diffin, P.E. of Sevee & Maher Engineers, concluding that “Given the nature of the proposed development, the fact that surface runoff patterns are not altered, and stormwater management devices remain unchanged, SME does not anticipate the project will have any adverse impact to the downstream drainage or abutting properties.”
- Mark commented on the applicant’s April 7, 2020 response with a requested that the applicant add notes to the plans indicating that the ballast blocks will not be placed in concentrated flow drainage pathways, and the maximum % slope that they can be placed on, and had no further comments.

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.

- An erosion control plan was submitted with the Final Plan. It includes erosion control plan specifics, including general, temporary, and permanent measures, dewatering, winter construction and stabilization, housekeeping, and plan details.

Utilities

- A 10' buffer will be maintained around the existing landfill gas vents.
- New electric utilities will be installed on site. No other utilities are required. Some electric lines may need to be aboveground; the applicant has requested a waiver, stating that CMP will have some say in determining if lines will need to be underground or overhead to connect to the existing electrical distribution, and that Maine DEP will not allow any excavation into the landfill earth cover, which may require utility lines to be located overhead instead of below ground.
- A power shut off will be located at the inverter.
- A utility pad for a new transformer will be installed off of Enterprise Drive and will be connected to existing CMP medium voltage infrastructure. Due to the fact that the location may change, based on input from CMP, the Planning Board may want to consider potential visual impacts.

Financial & Technical Capacity

- Evidence of technical capacity must be provided as part of the Final Plan submission.
- The Final Plan submission includes a statement of Revision Energy's qualifications and project experience, including a project at the South Windham Fire Station.
- 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 submission includes a letter from Bangor Savings Bank dated March 6, 2020 stating that they have adequate financial capacity to complete the project.

Impacts to Adjacent/Neighboring Properties

- A landscaping plan must be submitted as part of the final plan set.
- Any proposed site lighting must be shown on Final Plan, and details of fixtures must be included in the submission.
- A 6 foot tall chain link fence is proposed around the perimeter of the project, outside of the landfill cap.
- The Final Plan submission states that the fence will be black.
- Because of the grade change from the road level to the proposed installation, the project is not expected to have a significant visual impact.

Conformity with Local Plans and Ordinances

1. Land Use

- The project meets the minimum lot size, frontage, and setback requirements of the Commercial District 1 (C-1) zone.
- The proposed public utility facility use is allowed in the Commercial District 1 (C-1) zone.
- 813.C. Commercial District Design Guidelines. Because of the lack of buildings, parking areas, and public use, the Commercial District Design Guidelines are not applicable. The visual impact of the pad mounted transformer should be considered, and if necessary, mitigated with the use of landscaping.

2. Comprehensive Plan

- This proposed project is located in the North Windham Growth Area. It meets the goals and objectives of the 2017 Comprehensive Plan; it proposes to turn an unproductive landfill site into a solar-production facility that will provide reliable and affordable electricity to the Town for decades to come. This proposed use represents an investment in Town facilities and infrastructure, a project we can be proud of in North Windham that also makes good fiscal sense from a capital management perspective.

3. Others:

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 landscaping.

CONDITIONS OF APPROVAL

1. Approval is dependent upon, and limited to, the proposals and plans contained in the application dated January 21, 2020, as amended March 23, 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.