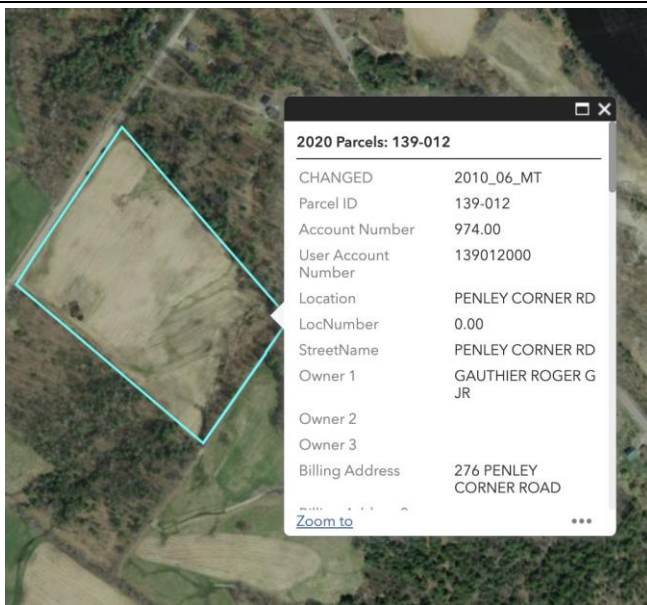


To: Auburn Planning Board
From: Megan Norwood, City Planner
Re: Proposed 20 acre, 2.5MW solar array at 100 Penley Corner Road (PID: 139-012), Auburn Renewables 2, LLC on a parcel located in the Agriculture and Resource Protection Zoning District.
Date: October 12, 2021



I. PROPOSAL: TRC and NexAmp, on behalf of Auburn Renewables 2, LLC are seeking Site Plan/Special Exception pursuant to Sec. 60-45 of the Auburn Code of Ordinances to construct a 2.5MW solar array on approximately 20 acres on Penley Corner Road. The parcel is located in the Agriculture and Resource Protection District.

The Planning Board offered a recommended ordinance on Solar Energy Generating Systems for the Agriculture and Resource Protection District, which was approved by the City Council on June 1, 2020.

Below are the standards the Planning Board created for Solar Energy Generating Systems in the Agriculture and Resource Protection District and the information the Applicant provided on each.

Chapter 60, Article XVIII. – Solar Energy Generating Systems. Section 60-1430 (Approval):

- I. *Yard Requirements.* The requirements in this section are not applicable to solar arrays in the Ag-Zone, they have their own set of requirements for setbacks (see below).
- II. *Lot Coverage.* The standards apply to the paved, mounting block, or otherwise impervious areas of the site. Photovoltaic cells, panels, arrays, and inverters are not considered impervious areas provided the soil underneath the collector is not compacted and remains vegetated in accordance with the permanent stabilization standards in Chapter 500 (**see below**) for the 30% lot coverage requirement specific to solar arrays in the Ag-Zone.
- III. *Height Regulations.* The total height of solar arrays including accessory structures cannot exceed 30 feet. **The maximum height of the proposed solar array is 14 feet.**
- IV. *Technical and Safety.* A copy of the as-built site plan for the solar array is required to be provided to the Fire Prevention Officer with all means of shutting down the solar array clearly marked. **This will happen after the solar array has been constructed, the Applicant has been in contact with the Fire Prevention Officer.**
- V. *Maintenance.* The facility is required to be maintained in good condition throughout the life of the project, this includes both infrastructure and access ways. **This is something the City will monitor after the solar array has been constructed, if there are issues, the City will cite this provision and request the issues be resolved. An Operation and Maintenance Plan has been provided.**
- VI. *Glare.* This section requires solar arrays to minimize or negate solar glare that could impact nearby properties or roadways, it also has specific requirements for solar arrays in the Airport Overlay. **This parcel is not located within a 2 nautical mile radius of the**

Auburn Lewiston Municipal Airport so a glare study is not required. Section 6-A of the materials provided discusses the actions taken in terms of panel orientation and vegetative buffers to minimize glare impacts.

- VII. *Visual Impact.* This section requires the applicant to make a reasonable effort (determined by the Planning Board) to minimize any visual impacts associated with the solar project. In making this determination, the board shall consider the size, location and topography of the site, characteristics of the surrounding property and the amount of type of development on the properties in determining how much screening and buffering is appropriate. **The Site is currently an open farm field, the closest homes are several hundred feet away and are surrounded by existing tree lines. This is also depicted in aerial photography of the site. Again in Section 6-A of the materials provided, is a thorough description of the existing vegetation and how it will minimize visual impacts of the project.**
- VIII. *Lighting.* This section requires that lighting be limited to that required for safety and operation and that it be shielded from abutting properties and directed downward. **No lighting is proposed to be installed as part of the project.**
- IX. *Clearing.* When possible, in unbuilt areas, requires that Solar Energy Generating Systems maintain the permeability of the ground and that clearing of natural vegetation be limited to what is necessary for the construction, operation and maintenance of the Solar Energy Generating System. **The Applicant has sited the proposed facility in an open, existing and well-maintained open field habitat. Therefore, no clearing is required as part of the project.**
- X. *Operation and Maintenance Plan.* Requires the submission of an Operation and Maintenance Plan for the Solar Energy Generating System. **An Operations and Maintenance Plan has been provided as attachment 9C of the submission materials. The plan has proper measures to ensure the facility will be maintained and kept in safe working order (see below for O&M Plan requirements specific to the Ag-Zone).**
- XI. *Fire & Electrical Codes.* Requires all Solar Energy Generating Systems to be installed in compliance with the photovoltaic systems standards of the National Fire Protection Association and National Electrical Code. **Fire and Safety is addressed in Section 15 of the materials. The installation will be in compliance with NFPA and the NEC.**

Sec. 60-1431. Abandonment or Decommissioning standards, including the requirement of a financial surety to cover the cost of facility removal in the future.

A decommissioning plan has been provided that includes a mechanism for restoring prime farmland through soil restoration, this is one of the requirements for decommissioning specific to projects in the Ag-Zone. COST BREAKDOWN?

Chapter 60, Article IV, Division 2, Agriculture and Resource Protection District, Sec. 60-145. – Use Regulations.

(B) Special Exception Uses. Ground-Mounted and Dual-Use Solar Energy Generating Systems greater than one acre in total land area as defined in Sec. 60-1425, subject to the following conditions:

- a) Must comply with all of the standards in the Solar Energy Generating Systems ordinance (see above).
- b) *Setback Requirements.* Solar arrays are required to comply with the same setback requirements for buildings in the Agriculture/Resource Protection District, which are Front/Rear: 25 Feet and Side 15 Feet. **The project exceeds the setback requirements.**
- c) *Lot Coverage* cannot exceed 30% as defined above (the standards apply to the paved, mounting block, or otherwise impervious areas of the site. Photovoltaic cells, panels, arrays, and inverters are not considered impervious areas provided the soil underneath the collector is

not compacted and remains vegetated in accordance with the permanent stabilization standards in Chapter 500). **The area of the site considered impervious coverage is 18,773 square feet which includes a gravel access road, post-supported racking system and equipment pads. The total parcel area is 20.17 acres making the impervious lot coverage about 2.14%.**

So far, the Board has reviewed:

- 1040 Perkins Ridge (978 Solar Development LLC/Borrego Solar) which included **18.9 Acres** of solar development
- 1115 Riverside (Auburn Renewables/NexAmp) which included **35 Acres** of solar development.
- 1054 North River Road (Auburn Solar, LLC/Hexagon Solar) which included **18 acres** of solar development.
- This project proposes **14.6 acres** of solar development.

TOTAL: 86.5/200 Acres

d) *Total Land Area.* This standard requires the Planning Board look at the total amount of land area in the Ag-Zone that is proposed and currently used for solar and make a recommendation that a new solar array will not materially alter the stability of the overall land use pattern of the Ag-Zone. In making this determination, the Planning Board will also consult with the Ag-Committee and Conservation Commission. **This provision will become applicable once 1% of the Ag-Zone is consumed by solar which would be about 200 acres. It does not apply to this project (see purple box for breakdown of previous projects).**

e) *Existing Grid Infrastructure.* This provision considers the location of existing grid infrastructure and limits the need to extend additional infrastructure in the Ag-Zone. **CMP already has an existing overhead 3-phase distribution line along Penley Corner Road. An overhead 3-phase line will allow this project to tie into the existing distribution line - limiting the new amount of infrastructure that would be necessary in the Ag-Zone.**

f) *Clearing.* These standards allow clearing for solar arrays under certain conditions:

1. The presence of the Solar Energy Generating System will not result in unnecessary soil erosion or loss that could limit agricultural productivity on the subject property or abutting properties. **Clearing is not proposed as part of this project.**

2. At the time of decommissioning of any Solar Energy Generating System approved by the Planning Board, the current sitting Planning Board shall review the site and proposed decommissioning plan for the conversion of the parcel into prime farmland or forestland, as applicable under the current ordinance standards. **While clearing is not proposed as part of this project, the decommissioning plan does include written provisions for returning the property to prime farmland, if that is desired at the project end of life.**

3. A survey of critical wildlife habitat is provided at the time of application, if a project is located in an area determined to be essential habitat, as defined by the Maine Department of Inland Fisheries and Wildlife, an IF&W recommendation shall be secured before a Planning Board ruling. **Again, while this project does not propose any clearing, the Applicant reached out to the Maine Department of Inland Fisheries and Wildlife and included a letter in their submission materials stating that based on IF&W review of information provided about the site, current documentation and available information, essential habitats have not been mapped in this project area.**

4. A Vegetative Cover Plan is provided that demonstrates, where feasible, the replanting of forested areas disturbed during construction and preservation of prime soils throughout the life of the project. **A Vegetation Management Plan has been provided that includes topsoil maintenance, post-construction restoration as well as specific types of temporary and permanent stabilization measures, seeding type, timing and quantities.**

g) *Prime Soils.* These standards are considerations for prime soils and a soil analysis requirement. It stipulates that the least productive ag-soils be considered first for development unless there is non-prime farmland available on the site. **The site does not include any prime**

farmland, however, it does include Farmland of Statewide Importance which comprise approximately 6.48 acres of the project area. The Applicant consulted with the Maine Department of Agriculture, Conservation and Forestry and provided a letter from the Department in their application materials. They recommend, like the Planning Board has outlined in the approved ordinance, siting projects on non-agricultural lands. They are developing technical guidance on this that should help the Planning Board for future projects.

The project is proposed to disturb approximately 16 of the 20 acres and has essentially been centered on the 20-acre site. Given the proximity of existing mature tree stands, Penley Corner Road and the topography of the site, it has been sited in the best way possible to minimize the use of the most productive ag-soils. In addition, the construction, operation and decommissioning of the project is not proposed to compact soils and topsoils are proposed to remain on site throughout the project.

Difference between Prime Farmland and Soils of Statewide Significance:

Prime Farmland: Land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops, and is also available for these uses (the land could be in cropland, pastureland, rangeland, forest land, or other land, but not urban built-up land or water). It has the soil quality, growing season and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods.

Soils of Statewide Significance: Additional farmlands of statewide importance include those that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods.

- h) Additional requirements that ensure the following:
1. Siting of the overall facility and individual panels shall keep with the existing contours of the land, and
 2. Only pile driven, or ballast block footing shall be used so as to minimize the disturbance of soils during installation, and
 3. To the extent possible, infrastructure shall not be located on steep slopes, and
 4. A plan for topsoil maintenance shall be provided at the time of application to the Planning Board.

The Applicant addressed these items throughout their submittal materials. Topsoil maintenance was addressed as part of the Vegetation Management Plan as well as Section 9.E pertaining to soils.

- i) Operations and Maintenance Plan. There are also two additional requirements to be included in the Operations and Maintenance Plan including:
1. A plan prioritizing the ability to co-mingle agricultural and energy generation land uses including but not limited to: apiaries, grazing or handpicked crops. **As part of the Operations and Maintenance Plan they will be seeding the area under the panels with a pollinator-friendly seed mix. They have also created a Sheep Solar Grazing Program and are willing to work with the Ag-Committee to coordinate with local sheep farmers to use their existing flocks for vegetation maintenance at the site.**
 2. A plan that provides habitat for native plants and animals and native pollinators. **See above as part of the Operations and Maintenance Plan.**

II. DEPARTMENT REVIEW:

- a. *Police* – No comments received.
- b. *Auburn Water and Sewer* – No comments received.

- c. *Fire Department* – No comments received.
- d. *Code Enforcement (Electrical)* – No comments received.
- e. *Engineering* – Requires a performance bond for erosion controls and site access (see condition below). Please add note to separate topsoil when trenching for reuse in reestablishing the ground cover.
- f. *Addressing* – No comments received.

- II. PLANNING BOARD ACTION** – Sec. 60-1277. – Objective. In considering a site plan, the Planning Board shall make findings that the development has made provisions for:
- (1) Protection of adjacent areas against detrimental or offensive uses on the site by provision of adequate surface water drainage, buffers against artificial and reflected light, sight, sound, dust and vibration; and preservation of light and air;
 - (2) Convenience and safety of vehicular and pedestrian movement within the site and in relation to adjacent areas;
 - (3) Adequacy of the methods of disposal for wastes; and
 - (4) Protection of environment features on the site and in adjacent areas.

Sec. 60-1336. – As conditions prerequisite to the granting of any special exceptions, the board shall require evidence of the following:

- (1) That the special exception sought fulfills the specific requirements, if any, set forth in the zoning ordinance relative to such exception.
- (2) That the special exception sought will neither create nor aggravate a traffic hazard, a fire hazard or any other safety hazard.
- (3) That the special exception sought will not block or hamper the master development plan pattern of highway circulation or of planned major public or semipublic land acquisition.
- (4) That the exception sought will not alter the essential characteristics of the neighborhood and will not tend to depreciate the value of property adjoining and neighboring the property under application.
- (5) That reasonable provisions have been made for adequate land space, lot width, lot area, stormwater management in accordance with section 60-1301(14), green space, driveway layout, road access, off-street parking, landscaping, building separation, sewage disposal, water supply, fire safety, and where applicable, a plan or contract for perpetual maintenance of all the common green space and clustered off-street parking areas to ensure all such areas will be maintained in a satisfactory manner.
- (6) That the standards imposed are, in all cases, at least as stringent as those elsewhere imposed by the city building code and by the provisions of this chapter.
- (7) That essential city services which will be required for the project are presently available or can be made available without disrupting the city's master development plan.

III. STAFF RECOMMENDATIONS – The Staff Report discusses the standards required by both the Solar Energy Generating Systems ordinance and the Special Exception requirements for solar installations in the Ag-Zone. Planning Staff recommends the Planning Board find that the application meets the requirements of Article VI, District Regulations and that the application meets the requirements of Sec. 60-1277 (Site Plan Objectives) and Sec. 60-1336 (Special Exception Conditions) with the following conditions:

- 1. All bonding and inspection fees shall be paid and a notice to proceed issued by the Engineering Department before the start of construction.

Suggested Motion: *I make a motion to approve the Site Plan/Special Exception by Auburn Renewables 2, LLC to construct a 20 acre, 2.5MW solar array at 100 Penley Corner Road (PID: 139-012), on a parcel located in the Agriculture and Resource Protection Zoning District with the following conditions.*

1. *All bonding and inspection fees shall be paid and a notice to proceed issued by the Engineering Department before the start of construction.*

Megan Norwood

Megan Norwood
City Planner