

To: Auburn Planning Board
From: Katherine Cook, Planning Coordinator
Re: ME Washington HS CSG LLC Solar Project
Date: May 10th, 2022

PROPOSAL #1: PUBLIC HEARING/ SPECIAL EXCEPTION: 499 KW Electric Generation Novel Energy Solutions: The solar PV project is located on Rt. 202, 2440 Washington Street (PID 053-004) with project access on Washington Street, the current zoning Agriculture and Resource Protection (AG). The purpose of constructing a community solar garden (solar array) is to generate offsite solar energy that will be connected directly to the electric grid for the on-going benefit of subscribers to the solar garden. This proposed site will be constructed to produce just less than a half megawatt (499 KW) of electric generation. This project is pursuant to ARTICLE IV DIVISION 2, ARTICLE XVIII and to ARTICLE XVI DIVISION 2-3

I. STAFF RECOMMENDATIONS –Staff recommends the Planning Board discuss the project as it pertains to the requirements of Chapter 60 Article IV (AG zone) all requirements in Chapter 60 Article XVIII (solar energy generating systems), and all requirements as a special exception for approval pursuant to Chapter 60 Article XVI, Division 2-3 (site plan review and special exception) as a solar energy generating system in the AG zone. Staff then recommend the Planning Board hold a public hearing followed by a vote.

II. FINDINGS AND SUMMARY

1. The project conforms to all requirements in Chapter 60 Article XVIII, Chapter 60 Article IV Division 2 and Chapter 60 Article XVI Divisions 2 and 3.
2. The applicant has met all requirements of Ch. 60 Article IV Division 2 including dimensional requirements and setbacks appropriate for the AG zone.
3. The applicant has met all requirements of approval for solar energy generating systems (60-1506) with the conditions that they provide a Certificate of Completion (COC), signed Interconnection Agreement (IA) and a Customer Net Energy Billig Agreement (CNEBA) and an FAA Determination of No Hazard. Staff suggests that receiving these documents be a condition of approval.
4. The applicant has proposed substantial measures to maintain the environmental integrity and health of the site by proposing comprehensive erosion and sedimentation control plans.
5. The applicant will issue a detailed plan marking all means of shutting down the solar garden to the City prior to the start of construction and will mark the system with this information once built. Staff suggests that receiving the plan be a condition of approval.
6. The applicant has a detailed decommissioning plan for the end of project life. The City must receive the Solar Decommissioning Permit reviewed by MDEP prior construction. Staff suggests this be a condition of approval.
7. The project is not proposed on a site containing prime farmland and will not affect other agricultural and food production uses. The site impacts a minimal area of soils of statewide significance with the access road.
8. The proposal can be implemented without detriment to city resources.

Findings regarding this project in conformance to applicable ordinances are summarized below followed by language from Chapter 60 Article XVIII Division, Chapter 60 Article IV Division 2 and Chapter 60 Article XVI language for consideration with information the Applicant provided on each.

Chapter 60, Article XVIII. – Solar Energy Generating Systems. Section 60-1506 (Approval):

(a) Solar energy generating systems permitted by special exception. The planning board is authorized to retain experts at the applicant's expense to evaluate technical information or conduct studies that it finds necessary in order to determine whether these standards will be met. In addition to the criteria in sections 60-1277 and 60-1336, the planning board shall consider the following standards:

(2) Lot coverage. The paved, mounting block, or otherwise impervious areas of sites on which ground mounted solar energy systems are installed shall comply with the lot coverage standards as defined in section 60-579(2). **The site is 242,193.6 square feet in area total, with proposed 14,810.4 of impervious surface which covers 6.1 % of the lot area, conforming to the requirement that impervious or built area does not cover more than 40% of total lot area. Impervious surfaces include anything that water cannot run through such as roofing, pavement, solar panels, roads, etc.**

(3) Height regulations. The total height of the solar energy generating system and all appurtenant structures, including but not limited to, equipment shelters, storage facilities, transformers, and substations shall not exceed 30 feet. **The solar array will conform to this standard as the maximum height will be 14 feet.**

(4) Technical and safety. A copy of the as-built site plan for the solar energy generating system shall be provided to the local fire prevention officer. All means of shutting down the solar energy generating system shall be clearly marked. **The applicant confirmed that providing means of shutting down the solar energy generating system will be marked on site and on a plan and staff suggests that this demarcation could be a condition of approval. The as-built site plan will be provided to Auburn's fire prevention officer. There will also be protected access on the site as a gate with a key code or double lock will be provided to utility. In case of an emergency, there will be 24-hour contact information for Utility and emergency personnel.**

(5) Maintenance. The owner or operator of the solar energy generating system shall maintain the facility in good condition. Proper maintenance of the facility means that it is operating as designed and approved. Maintenance shall include, but not be limited to, painting, structural repairs, repairing damaged panels and integrity of security measures. The solar energy generating system must be properly maintained and kept free from all hazards, including, but not limited to, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety or general welfare. Site access shall be maintained to a level acceptable by the local fire prevention officer for emergency response. The owner or operator shall be responsible for the cost of maintaining the solar energy generating system and any access road(s), unless accepted as a public way. **Applicant has addressed maintenance by first, creating a low-maintenance site by utilizing conservation seed mixes. Applicant will also use native grasses or specific pollinator plantings. This landscape plan will be highly effective as a filtration system and erosion control, in addition to their other proposed erosion and sedimentation control measures. There would be additional site visits for regular maintenance and pro-active weed identification.**

(6) Glare. Solar panels are designed to absorb (not reflect) sunlight and are generally less reflective than other varnished or glass exterior materials. However, solar panel placement should minimize or negate any solar glare impacting nearby properties or roadways, without unduly impacting the functionality or efficiency of the solar energy system. Parcels located within a two-nautical-mile radius of the Auburn Lewiston Municipal Airport, as measured based on the runway centerline closest to the location in question shall comply with subsection_60-1505(a)(6). **The project falls within the outer boundaries of the five (5) nautical mile radius of the Auburn/Lewiston Airport which means it falls within the airport area of influence (AOI). The applicant has verified that she will be in contact with the Auburn/Lewiston Airport for assistance to obtain the FAA Determination of No Hazard prior to the start of construction. Staff suggests that receiving this could be a condition of approval.**

(7) Visual impact. An Applicant shall make reasonable efforts, as determined by the planning board, to minimize visual impacts associated with the installation of a solar energy generating system. The board shall consider the size, location and topography of the site, the characteristics of the surrounding property and the amount and type of development on said properties in determining the amount and type of screening and buffering that it deems appropriate. **The site will consist of a 499KW solar garden with 1,248 solar panels. Figure 1 shows the size and generation capacity of this solar project in comparison with solar projects the Planning Board has approved in the past. The site will be surrounded by a 6' high chain link fence with three strands of barbed wire lining the top. The fence will have a five (5) inch gap on the bottom to allow wildlife passage. Natural and existing screening will reduce visual impact of the project with additional vegetation will be planted to increase visual appeal and add stormwater purification, soil stabilization, and water quality.**

(8) Lighting. Ground-mounted solar energy generating system lighting shall be consistent with local, state and federal law. Lighting of other parts of the installation, such as appurtenant structures, shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties. Where feasible, lighting of the solar energy system shall be directed downward and shall incorporate full cutoff fixtures to reduce light pollution. **The front entrance gate will be illuminated 24 hours by one light for the safety of anyone responding. Staff recommends that this light be motion sensor, so it is only on when needed.**

(9) Unbuilt areas. Where possible, in unbuilt areas, solar energy generating system installations shall maintain the permeability of the ground. Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the solar energy generating system or as otherwise prescribed by applicable laws, regulations and bylaws/ordinances. **Applicant has maintained permeable surfaces excluding the accessway and solar equipment and temporary construction materials. The area will be seeded with conservation mix and pollinator mix.**

(10) Operation and maintenance plan. The owner or operator shall submit a plan for the operation and maintenance of ground-mounted and dual-use solar energy systems, which shall include measures for maintaining safe access to the installation, stormwater controls, as well as general procedures for operational maintenance of the installation. **After applying initial conservation mix and pollinator seed mix to the site, there will be regular site visits and pro-active weed control as well as regular site maintenance throughout the life of the system. Maintenance will access the site through the gated accessway. Staff recommends that the applicant provide a more detailed maintenance plan prior to construction.**

(11) Standard compliance. All solar energy generating system installations shall be installed in compliance with the photovoltaic systems standards of the latest edition of the National Fire Protection Association (NFPA) 1, Fire Prevention Code. All wiring shall be installed in compliance with the photovoltaic systems standards identified in the latest edition of the National Electrical Code (NFPA 70). Solar energy generating systems permitted by right. An application for a solar energy generating system permitted by right shall require review and approval by the following departments: planning, engineering, fire, code enforcement, Auburn Lewiston Municipal Airport and a representative of Lewiston-Auburn 911 committee. **The applicant has had a technical screening as a Level 2 application, and the following conditions have been met: that generation on the circuit will not exceed 15% of the line section annual peak Load, that generation on the circuit will not contribute more than 10% to the circuits maximum fault current to the point in the primary closest to the point of common coupling, that generation on the circuit will not cause any distribution protective devices or customer equipment on the system to exceed 90% of the short circuit interrupting capability, that the circuit will not exceed 10 MW, and that the point of common connection is not on a transmission line. Novel Energy Solutions passed the screening, but they will not have permission to operate until they provide a Certificate of Completion (COC), signed Interconnection Agreement (IA) and a Customer Net Energy Billing Agreement (CNEBA)**

Sec. 60-1431. Abandonment or Decommissioning standards, including the requirement of a financial surety to cover the cost of facility removal in the future. **By the end of the useful life of the project, at year 26, the applicant states that there is almost equal value in the panels and equipment than the costs associated with removing the system. The applicant will provide the city with the Solar Decommissioning Permit reviewed by MDEP. Staff suggests that obtaining this could be a condition of approval. The applicant will also have the project removed within 6 months of the end of its useful life which will include removal of all solar arrays, cables, electrical components, accessory structures, fencing, roads, and other ancillary facilities owned by the solar garden in conformance with Sec. 60-1507.**

ARTICLE IV DIVISION 2-AGRICULTURE AND RESOURCE PROTECTION DISTRICT

The project must meet all the requirements in the former section as well as the conditions listed in Article IV Division 2, Agriculture and Resource protection district. Solar Energy Generating Systems are allowed within the AG zone as a special exception if they meet the conditions in the AG zone (Sec. 60-145) provided below with the applicant’s proposal.

- a. *Rear.* There shall be behind every building a rear yard having a minimum depth of 25 feet.
- b. *Side.* There shall be 15 feet and the side property line.
- c. *Front.* There shall be in front of every building front yard having a minimum depth of 25 feet or 25 percent of the average depth of the lot whichever is less.

Font, side, and rear setbacks meet the AG zone requirements. This project conforms to these standards by providing over 600 feet rear yard setback, 25 feet side yard setback and over 300 feet front yard setback.

- c. Lot coverage does not exceed 30 percent defined in subsection 60-1506(a)(2);

The lot area is 242,193.6 square feet. The impervious surface area within the leased fenced area is proposed as 14,810.4 square feet and the percentage of impervious area as 6.1 percent.

- d. *Total land area.* If one percent of the AG district has been developed into solar energy generating systems, the Planning Board will shall consider the overall effect of existing and potential solar energy generating systems, etc. **The proposal does not trigger the additional consideration from the Planning Board and assessment from the Agricultural Committee (see Figure 1).**

<p>So far, the Board has reviewed:</p> <ul style="list-style-type: none">• 1040 Perkins Ridge (978 Solar Development LLC/Borrego Solar) which included <u>18.9 Acres</u> of solar development• 1115 Riverside (Auburn Renewables/NexAmp) which included <u>35 Acres</u> of solar development.• 1054 North River Road (Auburn Solar, LLC/Hexagon Solar) which included <u>18 acres</u> of solar development.• Penley Corner Solar <u>14.6 acres</u> of solar development• This project proposes <u>5.26 acres</u> of solar development <p>TOTAL: 91.76/200 Acres.</p>

Figure 1

- e. All applications shall consider the location of existing grid infrastructure and plan to limit the need to extend the amenities for optimal efficiency.

f. If a solar energy generating system is proposed on forestland in the agriculture and resource protection district, on a parcel adjacent to prime farmland or land currently used for farming, clearing of forestland or the use of prime farmland may be permitted under certain conditions. **This does not apply to the site as the applicant is proposing development on a non-forested area not classified as prime farmland.**

Discussion- Prime Farmland and Soils of Statewide Significance:

g. Prime soils. All solar energy generating systems proposed in the agriculture and resource protection district shall include a soil analysis. Such analysis shall demonstrate if the site proposed for development contains prime farmland as defined by the United States Department of Agriculture (USDA). Least productive agricultural soils shall be considered first for development unless it can be demonstrated to the planning board that non-prime farmland is not reasonably available on the subject property.

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.

Figure 2 shows the division of soil types on the property in question:

Farmland Classification Map

ME Washington HS CSC LLC



Figure 2

- a. 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 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 submitted a detailed soil analysis in their Environmental Package in Sec. 2.2. They also identified a detailed top-soil maintenance plan (see Maintenance section above).

Operations and Maintenance Plan. There are also two additional requirements to be included in the Operations and Maintenance Plan including:

5. 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 are planting native grass seed mix as well as pollinator friendly plant seed mix. The applicant will be sending more detail pertaining to site management.**

6. A plan that provides habitat for native plants and animals and native pollinators.

See above as part of the Operations and Maintenance Plan.

ARTICLE XVI DIVISION 2-SITE PLAN REVIEW

It is staff's opinion that the applicant's proposal has also met all requirements in Article XVI Division 2- Site Plan Review and is a suitable development which will not result in a detriment to the city, neighborhood or environment.

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.P LAN REVIEW GROUP COMMENTS

- I. Site is within airport area of influence (AOI). There could be possible glare from the panels. Applicant needs an FAA Determination of no Hazard. **Applicant is working on getting this. Staff suggests that receiving the FAA Determination of No Hazard may be a condition of approval.**

- II. Requiring a vegetation plan for erosion and sediment control. **Applicant provided a detailed erosion and sedimentation control in their environmental report and plan sets.**
- III. Is there a plan to access the land? **Applicant provided information and a detailed map depicting gated access.**
- IV. The project is tax exempt based on State Law for small community solar projects.
- V. There could be an increase in assessed property value with this project **Staff will speak with property owner.**

IV. SUGGESTED MOTION

I make a motion to approve the development of Parcel I.D 053-004 during the lease period for a 599kW solar array covering approximately 19 acres with the following **conditions**:

1. Before commencing construction, the City must receive a Determination of No Hazard from the FAA.
2. Before commencing construction, the City must receive the following documents: Certificate of Completion (COC), signed Interconnection Agreement (IA) from CMP, and a Customer Net Energy Billing Agreement (CNEBA).
3. Before commencing construction, the City must receive the Solar Decommissioning Permit reviewed by MDEP.
4. An updated plan providing means of shutting down the solar energy generating system will be provided before construction and will be marked on-site as built.
5. The Applicant will provide a more detailed vegetation maintenance and management plan for staff review prior to construction.
6. The lighting at the front gate will have a motion sensor and not be on unless there is activity at the site

Katherine Cook
Planning Coordinator