



TOWN OF FREEPORT, MAINE

Planning Department

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TO: FREEPORT PLANNING BOARD

FROM: CAROLINE PELLETIER, TOWN PLANNER

RE: AGENDA ITEM III: Zoning Ordinance Amendments for Solar Energy Generation Systems– PUBLIC HEARING

DATE: WEDNESDAY, FEBRUARY 3, 2021

Background: This will be a public hearing to discuss proposed amendments to the Freeport Zoning Ordinance regarding the new uses and standards for Solar Energy Generation Systems. New and amended definitions to Section 104. Definitions are proposed, including adding the new uses of: Solar Energy Generation System, Accessory; Solar Farm, Small; and, Solar Farm, Large.

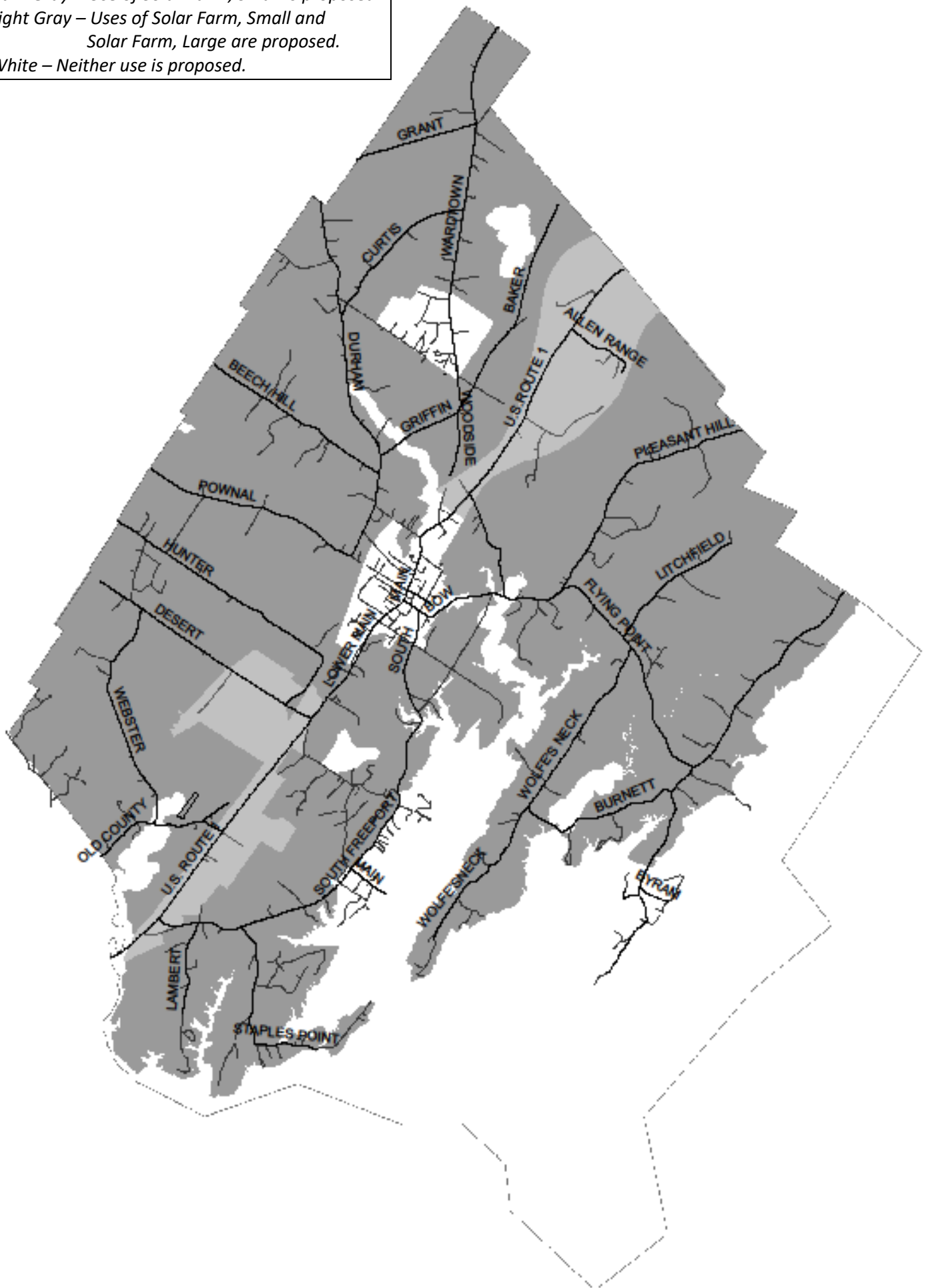
The use of Solar Farm, Small is proposed to be added as a permitted use, subject to Site Plan Review, to the following zoning district Sections of the Freeport Zoning Ordinance: Section 402. Rural Residential District I and Rural Residential District IA; Section 403. Rural Residential District II; Section 405. Medium Density Residential District II; Section 411. Commercial District III; Section 420. Local Business District; Section 421. Industrial District I; and, Section 425. Resource Protection II. (see attached map)

The uses of both Solar Farm, Small and Solar Farm, Large are proposed to be added as permitted uses, subject to Site Plan Review, to the following zoning district Sections of the Freeport Zoning Ordinance: Section 406. Medium Density Districts; Section 409. Commercial District I; Section 412. Commercial District IV; and, Section 422. Industrial District II. (see attached map)

A new Section 534: Solar Energy Generation Systems will be added. Associated amendments to Section 602: Site Plan Review are also proposed.

Process: In June 2019, the Freeport Town Council made the request for the Planning Board to study adding a definition and allowed districts for the use “Community Solar Farm”. The Planning Board retained the services of North Star Planning to assist in this process. The proposed language for consideration also reflects input from Staff and the Town Attorney. The Board discussed the language at multiple meetings (8/7/19, 10/2/19, 11/6/19, 12/4/19, 1/8/20, & 3/4/20) however there was a delay in bringing the language forward to public hearing due to the pandemic and the significant public notification required. This meeting is a public hearing and the Board could take action on the item at this meeting if they feel they are ready to decide on a recommendation to the Council and make findings on how the language is consistent with the Comprehensive Plan.

Dark Gray – Use of Solar Farm, Small is proposed.
Light Gray – Uses of Solar Farm, Small and
Solar Farm, Large are proposed.
White – Neither use is proposed.



Excerpts from the Freeport Comprehensive Plan

The complete Comprehensive Plan can be viewed at <https://www.freeportmaine.com/planning/pages/comprehensive-plan>.

The Vision

The Vision outlines the direction that the town wants to move in. While many ideas are included in this Plan they are not specific recommendations and, by no means should those ideas be considered the only way to achieve the Vision. In determining if an idea or proposal is consistent with the Plan, it is the Vision that should be kept in mind.

It is very likely that a new idea or situation will come up that is not consistent with the Vision of this Plan. If the idea is found to be a good one, then the Plan should be amended. This Vision is not static, but instead it is fluid and should be updated to meet changing needs and circumstances. It is also the document that the Planning Board uses as a guide to their decision making.

It is rarely the path of least resistance that creates a desirable change, but instead it is the difficult decisions and compromises that make a community a great place. The results of the Community Attitude Survey indicated that the Town's residents strongly identify with Freeport's "small town feel". Intelligent growth and development can benefit Freeport if they are managed in a manner consistent with this "small town" feel. This vision should be preserved, but not to the exclusion of all development.

The Vision for the future is:

That Freeport would continue to be a desirable place to live by:

- allowing a variety of neighborhoods and housing types, at a variety of prices,
- protecting natural and historic resources,
- ensuring that workers in Freeport can afford to live in Freeport,
- maintaining large tracts of undeveloped fields and forests, and providing opportunities to enjoy these places,
- having a recognizable transition from built-up village areas to rural areas,
- preserving and enhancing waterfront resources,
- encouraging the expansion of the creative arts,
- replicating the traditional pattern of New England village neighborhoods, and traditional architectural designs while also allowing new development patterns and contemporary design
- maintaining and improving the walk ability and bike ability of the town's neighborhoods so as to encourage community health and safety

That Freeport would be responsible stewards of the environment by:

- providing incentive to develop land in ways that don't harm the environment
- ensuring an adequate supply of potable drinking water
- protecting environmentally sensitive areas

- continuing to improve air and water quality

That Freeport's economy would remain strong and stable by:

- providing a diversity of commercial enterprises that provides a wide variety of jobs consistent with the community's character
- providing a diversity of goods and services that attracts visitors and sustains residents, again consistent with the community's character
- promoting Freeport as a destination to visitors
- providing flexible regulations that allow creative site and building designs so as to minimize negative environmental impacts, improve traffic circulation and traffic safety, and reduce our dependence on non-renewable energy resources
- protecting and expanding local food production, both on land and in the sea

That Freeport's energy needs would be met by:

- reducing energy consumption through efficient land use and building use, efficient building design, non-car transportation opportunities, and clean waste management
- increasing the use of renewable energy resources
- organizing energy conservation including all residents

That Freeport's transportation needs would be met by:

- maintaining the existing system of roads, expanding only when necessary
- promoting a variety of alternatives to the automobile, including walking, biking, rail, buses and trains
- improving the flow of traffic both vehicular and pedestrian in the village to reduce congestion

That Freeport's tax base would best accommodate growth by:

- using infrastructure and services to plan for growth, rather than simply to react to growth pressures. Infrastructure means roads, water and sewer lines, power lines, etc. Services means schools, libraries, firehouses, and other public investments

6. Energy and Recycling

The Growth Management Act has not established goals regarding energy. The State of Maine has the goal to become more energy independent by maximizing use of clean, reliable, and renewable energy resources while reducing green house gas emissions that contribute to climate change and by reducing energy consumption through conservation (Governor's Office of Energy Independence and Security).

At 2009 prices, the average Freeport household spends approximately \$6,840 per year on energy. A little over \$1,000 is for electricity, \$2,320 for heat, and \$3,500 for gasoline (State of Maine Comprehensive Energy Plan 2008-2009, Governor's Office of Energy Independence and Security). The 2008 median household income in Freeport is \$61,958 (see Table 5 –FDFTM). Therefore, the average Freeport household spends 11% of its gross income on energy. In 2008, oil and gasoline nearly doubled in price in a matter of months, illustrating the volatility and instability of the commodities. In addition, most of the money spent on energy leaves the local economy; a very small percentage of the dollars spent stay in Freeport.

Electricity

With all of the efforts by Efficiency Maine to encourage electricity conservation, the average electricity use for Freeport homes continues to rise slightly each year. The average home uses approximately 587 kilowatt hours (kWh) per month (see Table 26 –FDFTM) At 15.25 cents per kilowatt hour, that's \$89.52 per month. Consumption is lowest in the Spring and Fall and highest in the winter. There's also a spike in August attributable to seasonal air conditioners. Collectively, homeowners in Freeport spend \$3,961,049 on electricity. A 10% reduction would result in a savings of close to \$400,000. The first step to ensuring reliable and affordable electricity is simply to reduce waste.

Fifty one percent of all of the electricity produced in Maine uses fossil fuel, mostly natural gas, and some oil. Therefore, any reduction in use will reduce the consumption of costly and polluting fossil fuels. It will also reduce the need to construct new and expensive electricity generating plants. Using less electricity will reduce our reliance on foreign fuels, and may prevent the need to build costly new generating plants. Therefore, the cumulative impact of conservation in individual households can have a tremendous impact on the environment and the prices of electricity.

There are a number of simple measures that homeowners can take to conserve electricity. Reduction is the first step. Some are simple and require changing behavior but don't cost anything, others may require minimal expenditures. The savings tend to be small for each individual item, but when added together, the savings can be significant.

In Freeport, the commercial sector has also seen an increase in the use of electricity; the industrial sector on the other hand has had a reduction. This may be the result of incentive programs available to the industrial sector to conserve (there were 11 fewer commercial accounts in 2008 than there were in 2007 according to Central Maine Power).

Increasing the use of renewable electricity-generating resources is another important step to ensuring reliable electricity. Renewable resources opportunities include solar, wind, tidal, geothermal, and biomass. Solar (photovoltaic) and wind can be used on individual residences and businesses, while other renewable resources such as tidal and biomass generators are done on a much larger scale. In some cases, the cost of installing a renewable resource for generating electricity may be prohibitive for a

single household, or the “payback” may take longer than the homeowner might think is reasonable. As technology advances, and as demand increases, the price may come down. The more affordable the price, the more widespread the use of these devices will become. In the meantime, it is prudent to research various options so that when the time is right, good decisions are made. For example, the Freeport Public Works building is an excellent location for photovoltaic solar panels. The town should be prepared to take advantage of that technology if the price comes down.

Wind power has strong potential for Maine, both on land and in the water. Wind maps for Freeport show “fair” potential along the coast. Before we can pursue larger-scale wind power potential, we’ll need significant data collection. The larger scale projects, such as wind farms, come with a dramatic change to the landscape. For some citizens, the change is welcome and they admire the size and movement of the blades like a well designed building. For others they are a nuisance. For the turbines to work properly they have to clear the tree line by many feet. They will be a dominant piece of the landscape. Before undertaking any studies as to feasibility of a wind farm, Freeport needs to decide at what point is the change is acceptable. For example, would reduced electricity rates for a period of time be a reasonable trade off? Or is there no tradeoff that is reasonable? These are difficult questions, but ones that must be addressed well before any proposal is made.

Other energy opportunities might include biomass generators, for both electricity and for heating. The paper companies have used a version of this type of energy for decades. Research has shown that biomass facilities work best when they are linked to a very large building (or a complex of buildings) so that there is a short distance between where the energy is created and where it is used. If this type of development were proposed, it would likely require allowing a pattern of development that is somewhat more clustered than is allowed.

Recycling

In 1989, the Maine legislature adopted the following goal. “It is the goal of the State to recycle or compost, by January 1, 2009, 50% of the municipal solid waste tonnage generated each year within the state.” In the past twenty years, the state has achieved a recycling rate of 38%. The state is refining its goal.

Freeport’s recycling program is voluntary. In 2007, approximately 42% of the solid waste from Freeport was recycled (see Table 29 –FDFTM). For every ton of solid waste that is recycled instead of disposed of traditionally, the town saves \$88 (2008 prices). So the more that is recycled, the less the town is required to pay. Many paper, plastic, and metal products and packaging are recyclable. Residents can bring recyclable materials to recycling containers commonly referred to as “silver bullets”. The town doesn’t have to pay for the container, but removing the full containers costs approximately \$45 per ton. The Recycling Committee would like to have silver bullets in more locations as an incentive to increase recycling; however, funding isn’t available to cover the removal costs.

The town also promotes recycling by encouraging composting by bulk purchasing composting containers and selling them to residents at cost. The Recycling Committee also handed out reusable shopping bags to everyone who brought items to the bulky waste recycling.

Paper and cardboard brought to the recycling center on Pownal Road are baled and sold. The sales price isn't high, but it helps to support the recycling facility. In short, the Town saves more if materials are brought to the recycling center.

The Freeport Town Charter prohibits any ordinance that transfers disposal costs at EcoMaine to the taxpayers via a fee such as "pay per bag" or a new tax. As a result, any efforts to increase recycling can't be in the form of a new fee or tax.

IMPLEMENTATION IDEAS

- 1. Consider developing standards for wind turbines and solar panels that regulate the location to minimize noise impacts on neighboring properties, height, and safety of the structure, and that take industry standards into consideration. New Ordinances should be consistent with State Shoreland Zoning regulations and other state laws. (Planning Board) low priority*
- 2. Consider collecting local wind data, if possible. (Town staff) low priority*
- 3. Consider developing standards for roof mounted and ground mounted solar panels that take into consideration historic structures, aesthetics, height, etc. consistent with State law. (Planning Board) high priority*
- 4. Consider chipping waste wood at the recycling facility for use in outdoor wood boilers. (Town staff) low priority*
- 5. Consider allowing a density bonus and/or flexible zoning standards if projects that use renewable energy resources. For example, a group of homes or units that will use one geothermal heat pump, or outdoor wood boiler, etc. (Planning Board) medium priority*
- 6. Consider exploring the possibility of a publicly held, or quasi publicly held renewable energy utility to reduce local ratepayer electrical bills, to expand the use of renewable resources, and to reduce greenhouse gas emissions. (Town Council) low priority*
- 7. Consider setting aside a portion of the annual savings resulting from increased recycling to fund additional recycling programs. (Recycling Committee) medium priority*