

Whitefield Conservation Commission
Meeting Minutes
June 13, 2019
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Frank Lombardi called the meeting to order at 4:22 p.m.

Members Present: Frank Lombardi-Chairman, Valerie Yelton, Marsha Lombardi, Edith Worcester and Tina Wright-Secretary

Members Absent: Donald LaPlante-Vice Chair and Ken Jordan

Guests Present: Virgil Arthur Hammon

Solar RFP-Article May 21, 2019 and Solar Power pros/cons:

Frank brought in a newspaper clipping from The Caledonian Record that discussed an RFP (request for proposal) for a solar farm. One of the areas mentioned for the solar farm is the land across from the DG Whitefield biomass plant which is the same parcel the Conservation Commission want to turn in to a Town Forest. Frank introduced Virgil Arthur Hammon to the commission and brought him up to date on what the commission had been working on since before the 2019 Town Meeting. Mr. Hammon created some handouts and handed them out to everyone. (see attached) and spoke to the Conservation Commission about his thoughts and ideas and issues to consider with solar panels. Big questions for people to consider with solar panels are what do you do with them when they no longer work? Only work with sunlight, what will you do at night? What happens when you have limited sunlight? The life span is around 40 years for a solar panel. The commission spoke about life style changes people could make to be more conserving of our energy sources. Wood Stoves, maximum insulation, triple pane windows etc.

Responses from Selectboard: The Conservation Commission received an email from Selectboard Member John Tholl Jr that stated in his opinion the Selectboard as well as the Airport Commission will continue to object to the creation of a town forest. This came after the Conservation Commission declined to attend a Selectmen's meeting to discuss what had transpired at the 2019 Town Meeting. The Conservation Commission talked about what they would like to do next and came up with a few ideas. Focus on Town Forest for now. Solar Array project later. If DG Whitefield biomass plant stays open, there will be no solar panels going in at that location.

Jon Swan-Pow Wow Picnic June 18, 12 noon:

There will be a picnic on Tuesday, June 19, 2019 at 12 p.m. at the Forest Lake Beach.

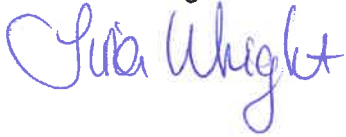
The Conservation Commission talked about the proposed Dalton Landfill near Forest Lake, their estimated amount of truck loads coming in and out of this future landfill is around ninety. Next meeting will be Wednesday, July 10, 2019 at 4:30 p.m.

Edith Worcester moved to approve the minutes as amended from the April 10, 2019 meeting, seconded by Marsha Lombardi, no further discussion, all in favor, motion carries.

Adjournment: Marsha Lombardi moved to adjourn the meeting at 5:42 p.m., Valerie Yelton seconded, meeting adjourned.

Respectfully Submitted:

Tina L. Wright- Secretary



Frank Lombardi- Chairman



Issues to be considered when evaluating the sustainability and “green value” of photovoltaic produced electricity (solar panels).

Dr. Art Hammon
26 Park St., Whitefield, NH, 03598)
Formerly of the Education Office,
Jet Propulsion Laboratory/ NASA/California Institute of Technology,
Pasadena, CA

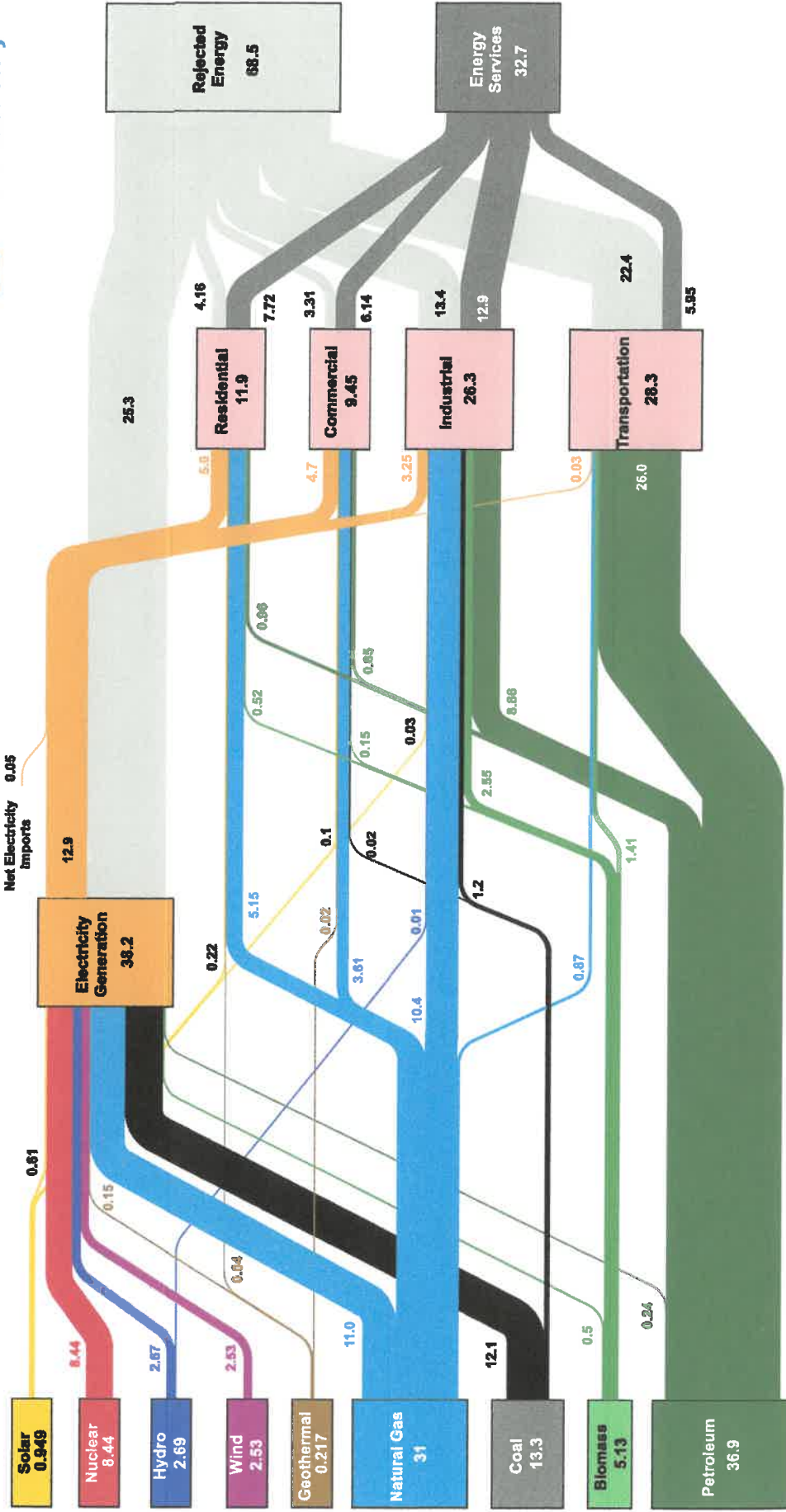
Issues to consider when contemplating using town finances to build solar photovoltaic infrastructure:

- a. A solar panel does not produce enough photovoltaic generated electricity during its lifetime to replace the outdated one with a replacement using Full Cost Accounting methods. Because solar panels are produced with fossil-fuel-generated electricity, manufacturing solar panels actually add to greenhouse gasses in the atmosphere.
- b. The “Full Cost Accounting” output over the 40-year suggested lifetime of photovoltaic produced electricity (solar panels) is less than the carbon footprint to produce, install and maintain the solar panels. The mining, refining, fabrication and manufacture of photovoltaic produced electricity requires large amounts of fossil fuel generated electricity at present.
- c. In addition Full Cost Accounting must include, transportation, installation and electronics to “match” the output of photovoltaic electricity for sale to the existing grid to the 60 cycle/sine wave configuration of grid-based electricity. The electronics to match the grid must be powered by grid-based electricity.
- d. Solar panels do on work to produce electricity if the grid power is not available due to network power-outages.
- e. Night time need for storage of daytime generated electricity is both energy inefficient and subject to constant degeneration of the batteries and the need for constant replacement with proper “green” plans for disposal of the batteries.
- f. The current national production of photovoltaic generated electricity is 0.95 of the national consumption. In addition, this “boutique” energy is only available during daytime hours. What is the infrastructure cost to build

- enough solar panels to produce a national energy capable network?. The current amount of solar installations must be increased by a factor of 100.
- g. There is currently no available solution to the lack of solar generated electricity when atmospheric conditions are cloudy or during evening-night-morning hours when the angle of incidence of the solar radiation is either non-existent or less than 50%.
 - h. Any size populated area with current lifestyle consumption patterns (2019) wishing to use solar energy for ALL its energy requirements requires covering 80% of the town (streets, lawns, sides and tops of all buildings) with solar panels. This does not consider the space needed for storage of electricity for nighttime .
 - i. Any state or federal grants or incentives for solar installations may reduce the cost to the town but increase the harm done to the planet. Subsidized funding is only of benefit to the town but not the environment.

June 13, 2019- vah

Estimated U.S. Energy Consumption in 2018: 101.2 Quads



Source: EIA March, 2019. Data is based on DOE/EIA MESA (2018). If this information or a reproduction of it is used, credit must be given to the Lawrence Livermore National Laboratory and the Department of Energy, under whose auspices the work was performed. Distributed electricity represents only retail electricity sales and does not include industrial or commercial electricity production. The efficiency of electricity production is calculated as the total retail electricity delivered divided by the primary energy input into electricity generation. End use efficiency is estimated as 65% for the residential sector, 65% for the commercial sector, 21% for the transportation sector and 49% for the industrial sector, which was updated in 2017 to reflect DOE's analysis of manufacturing. Totals may not equal sum of components due to independent rounding. MESA-MI-410527