

Town of Boscawen, NH

AGRICULTURAL COMMISSION Boscawen Municipal Complex

Approved MEETING MINUTES Thursday, July 09, 2015

Commissioners Present: John Keegan, Elaine Clow, Angela Swyers, William Bevans, Tina Larochelle
Alternate Commissioner Present: Tom Danko, John Porter
Commissioner Absent (Ex Officio): Roger Sanborn
Alternate Commissioners Absent: Ken Marshall
Others Present: Alan Hardy, Planning & Community Development Director, Bruce Crawford, Planning Board Chair, Alan Gauntt and Tanya Wilson from Granite State Solar (GSS), Adam Crete, owner Highway View Farm and Tom Goivagnoli, Boscawen land owner.

Chairman Keegan called the meeting to order at 7:00 p.m.

Approval of Minutes

Motion was made by Elaine Clow and seconded by Tina Larochelle, to approve the minutes of the June 11, 2015 meeting as amended. The motion passed unanimously.

Accounting Report

Motion was made by Tina Larochelle to accept the Agricultural Commission accounting report as presented. Elaine Clow seconded and the motion passed unanimously.

Land Use Happenings

- **Presentation by Granite State Solar (GSS) founder Alan Gauntt and Tanya Wilson, Customer Relations Manager.**

Alan began his presentation with a brief history of the company, which he founded in 2008, and explaining that Eric Shifflett, who had been scheduled to do the presentation, is on vacation. Appendix 1, which is attached to these minutes, contains the major points and supporting detail of Alan G's presentation.

Items not in Appendix 1 include:

- A discussion of the Unitil rate setting criteria for commercial vs. farm vs. home installations. John P and Adam C indicated that farms in Merrimack County generally use a home installation to save money. Alan G indicated that Eversource's commercial rate is generally a less expensive option. Bruce C pointed out that only a handful of homes near the Franklin/Boscawen town line are Eversource's customers. Alan H noted that, in the past, he has had difficulty convincing Unitil to bill local farms as farms.

- 43 • Challenges of designing and installing solar power for a residence or business that is off the grid.
44 In addition to a minutely detailed set of information about appliances, lights, machinery, essentially
45 anything requiring power, the cost of batteries for up to 2 days is \$15,000 minimum. He also noted
46 there is no rebate because there will be no power going to the grid.
- 47 • **Discussion of the attendance list for the Agritourism presentation by Upton & Hatfield**
48 **attorneys.**

49
50 Alan H provided a brief overview of the Forester V Henniker decision and concluding that RSA 21:34a
51 does not create a State pre-emption for defining Agritourism. He pointed out that a date for the attorney's
52 presentation has not been set but the time will be 6pm.

53 The consensus is to do it in September at the town office meeting room; limit attendance to 60 people with
54 the local (Boscawen) audience given priority; and offer a local agricultural product as a snack,
55 Richardson's Apple Crisp and ice cream, from 5:30 to 6pm.

56 The purpose will be identify how to apply the lessons from Forester V Henniker to Boscawen's regulatory
57 needs. Then, to do it in a way that enables farmers to use all their farm's resources/assets i.e. location,
58 view, atmosphere and history to generate income that does not have to be tied to crop production.

59 There was some discussion as to whether this meeting was needed, and could not Boscawen establish its
60 own guidelines without everyone else's help. Then, we came to the consensus that it might be a benefit for
61 some of these other resource people to be at the table so we could learn from their experiences and they
62 might gain some good insights from hearing our discussions. Since the Boscawen Ag Comm. has earned
63 some credibility from work with other issues it may be the AgComm could even be a leader in helping
64 develop some statewide policies in regard to Agritourism.

65 **Action Plan: Alan Hardy will follow-up with town counsel to identify possible presentation dates.**

66
67 **New Business:**

- 68
69 • **Old Home Day Participation**

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71 Chairman Keegan announced that he had received materials from the Old Home Day Committee
72 concerning participation in the parade and had read in the June 15 – July 15 *Boscawen Newsvine* that the
73 Agricultural Commission was going to judge the 'Cows on King Street'. He asked for three volunteer
74 judges. Angela S, Bill B, and Elaine C volunteered to do the judging. Due to commitments that day by
75 other Commissioners it was decided not to participate in the parade.

76
77 **Action Plan: John Keegan will follow-up with the Old Home Day Committee to identify whom the**
78 **judges should contact for instructions before the next Commission meeting.**

79
80 **Old Business:**

- 81
82 • **Report on Chair's meeting with Board of Selectmen (BOS) on June 24th Concerning the**
83 **Commercial Kitchen Study**

85 Chairman Keegan provided the BOS with the background of the project including the grant money
86 awarded and the consultants tasked with performing the study. The results indicated that it is not
87 economically feasible to build a kitchen in Boscawen but there is an underutilized kitchen in Warner
88 that has potential. The consultants concluded that education is the key as farmers are not aware of the
89 kitchens that are currently available. The Agricultural Commission plans to publicize this research
90 both locally and statewide with the goal of improving the connections among the production,
91 processing and distribution segments of the food chain here in New Hampshire. The BOS thanked Mr.
92 Keegan for the presentation and the hard work of the Commission.
93 There followed discussion about the value of the study for local farmers as well as state-wide. John P
94 noted that this study provides an up-to-date set of information about where the kitchens are located,
95 services offered, costs, operational challenges and much more. The last time such a detailed
96 examination of these questions was done was in the mid 1990's. Because the Agricultural Commission
97 has credibility among those involved in the agricultural sector the Commission should engage
98 Cooperative Extension, the Department of Agriculture, Markets & Food, as well as a presentation at
99 the Farm & Forest in 2016 among other outreach.

100
101 **Action Plan: Chairman Keegan along with other Commissioners will meet with Commissioner**
102 **Merrill prior to the August meeting to present the study results and discuss with her how best to**
103 **disseminate and use the report. Chairman Keegan will also contact the Warner Town**
104 **Administrator prior to the August meeting to ascertain if he will be working towards operation**
105 **of a commercial kitchen in Warner.**

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107 • **Legislative Update**

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109 Bruce Crawford reported he will be participating on a Study Committee formed by Senator Bouton to
110 examine Agritourism in light of the Henniker Supreme Court decision. He will provide the
111 Commission updates as the discussion unfolds.

112
113 • **Educational Program**

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115 Vice-Chairwoman Elaine Clow reported about 25 attendees for Growing Strawberries with Amy
116 Papineau UHNCE on July 6th. We had two Twilight Talks at the community garden. The herb talk
117 July 7th drew eight people while the Integrated Pest Management (IPM) on July 14th was attended by
118 six individuals. Upcoming educational offerings include: August 3rd, First Monday, Jessica Sprague
119 UNHCE Grafton County, Food Preservation 6:30pm Town Office. The Twilight Series continues at
120 the Community Garden on August 4th @6:30pm with Ann LaCroix and Louise Jacob doing an Herb
121 Talk. On August 11th @ 6:30pm Dot Perkins UNHCE will present on IPM.

122 Chair Keegan reported he had spoken with Amy Papineau about the letter sent to Amy Ouellette at
123 UNH Extension regarding the lack of in-depth content of the Integrated Pest Management (IPM)
124 workshop that was held on May 11th. He reported that staff in the Boscawen office were unaware that
125 there are now two IPM presentations for Master Gardeners, one the general material for homeowners,
126 which we received and another directed at gardeners, which we wanted. She apologized for the
127 mistake. Additionally, there has been ongoing internal discussion about standardizing UNHCE

128 education programs and charging attendees. Amy Papineau indicated our letter to Amy Ouellette
129 buttressed her viewpoint that standardization was not the path UNHCE should follow. The internal
130 discussion continues. She thanked the Commission for expressing our viewpoint to all concerned.

131
132 • **Community Garden**
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134 Chairman Keegan reported that the herb garden is completed. On Tuesday, July 7th Ann LaCroix and
135 Louise Jacob held a Twilight Talk on harvesting and using herbs for about half a dozen attendees. On
136 the 5th another edition of the *Green Thumb Gazette* was distributed with a series of interesting articles,
137 gardening tips and recipes.

138 Angela S reported that she had been in contact with the sign company in Warner Alan H had
139 recommended. She has sent them the design files and it is a job they can do but the cost is greater than
140 the prison would have charged. The Commission had allocated \$450. Their cost is \$750 with the
141 signboards. If there is unspent money in the budget at year's end the Commission could cover the full
142 cost during the current year. If not, the Commission will divide the cost over two years.

143
144 **Action Plan: Angela Swyers will discuss price and phasing work with the sign company and**
145 **report the results at the August meeting.**
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147 **A motion to adjourn was made by Vice Chairwoman Elaine Clow and was seconded by Tina**
148 **Larochelle at 8:50 p.m. All Commission members approved and the meeting ended.**
149

150 The next regular meeting of the Agricultural Commission will be held on August 13th, 2015 at 7:00 p.m.

151 *Minutes are respectfully submitted by John Keegan*
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Agricultural Committee of Boscawen

FAQ's



How do I know if my house or property is right for solar?

Roof Mount Considerations

- An ideal roof will face south and have a pitch of 23-45 degrees (5 to 12 pitch).
 - The alignment of the roof slope is called the “Azimuth”.
 - A perfect azimuth is 180 degrees – solar south. Solar south on a compass here in NH is about 194 degrees!
- A steeper pitch is better for shedding snow and generally produces more electricity than shallow-pitch roofs at our latitude (42-43 degrees)
- Obstructions such as chimneys, skylights, vents and satellite dishes will reduce the size and output potential of the system. Triangles (such as hip roofs) also limit the useable space.
- Roof shingles should be in good to excellent condition. Fair or poor shingle condition warrants roof replacement in advance of solar installation.

Bad Roof!



Good Roof!



GRANITE STATE SOLAR

Ground Mount Considerations

- Ground mounts need space and sunlight.
- Is the trench run feasible? Cutting through driveways is not a good option.
- Is there access for an excavator and cement truck? We can't drive on septic systems or trench through sprinkler systems...

What are the Rebates & Incentives

NH Public Utility Commission (PUC) Rebate – SUBJECT TO CHANGE

- Residential: \$0.75 per watt up to max of \$3,750 (maxes out at 5,000 kW)
- Commercial: \$0.75 per watt up to max of \$150,000 (with caveats)
- The PUC rebate arrives in the form of a check about four weeks after solar array is brought online.
- GSS will submit all required rebate paperwork for customers and assist with any questions.

Federal Tax Credit

- Tax payers will receive a tax credit equal to 30% of the total system cost.
- This can encompass make-ready tasks such as tree removal and shingle replacement.
- GSS provides the IRS form and all supporting documents to customers for their tax preparations.

RECs – Renewable Energy Credits

- A credit (REC) is generated for each 1,000 kWh of production. Each REC is worth about \$55.00.
- A system generating 10,000 kWh/year could generate about \$550 in gross revenue. After commissions to the company that sells them (Knollwood Energy is the REC aggregator GSS uses) and annual auditing fees, net income would be about \$471.50.



Is Financing Available?

Yes, customers may finance without any out-of-pocket costs

- 2.99% financing for up to 12 years
- Loans are unsecured – no lien on property
- No early payment penalties
- Requires credit score of 700+ and a strong debt to income ratio

Example:

Total cost of system: \$23,000

Federal Tax Credit: \$6,900

NH PUC Rebate: \$3,750

Net Solar Cost: \$12,350

Monthly Payments: \$102.17



What products does GSS use?

Solar Panels

- SunEdison
 - Made in Canada
 - Cash or 2.99% financing available
- SolarWorld
 - Made in the USA
 - Cash or 5.99% financing available
- LG
 - Made in Korea
 - Cash or 5.99% financing available

All panels feature a 25-year warranty

Inverters

- Enphase M-215 & M-250 Microinverters
 - Proposed for all residential systems
 - Made in China
 - 25 year warranty
- SolarEdge string inverters & optimizers
 - May be proposed for commercial systems
 - Made in Israel
 - String inverters – 10 year warranty, optimizers – 25 year warranty



What products does GSS use - continued

Mounting Systems

- **Snap & Rack**
 - For roof array
 - 10 year warranty
- **Schletter**
 - For Ground/ Fixed array
 - 20 year warranty
- **AllEarth**
 - For ground tracking system
 - 10 year warranty

Production Meter

- **Hialeah**
 - Made in USA
 - 10 year warranty
 - REC meters are installed on every job
- **Data Acquisition**
 - Enphase
 - Envoy Enlighten Manager
 - 2 year warranty on Envoy
 - Monitoring for lifetime paid on customer's behalf by GSS



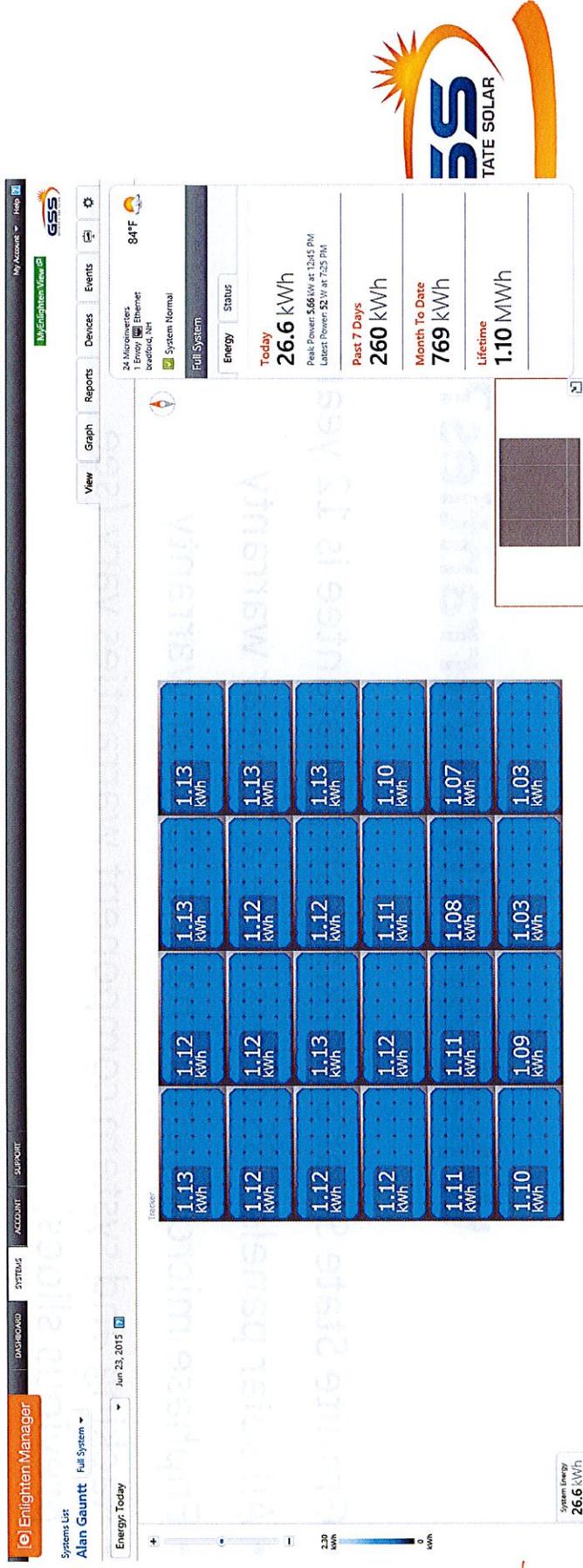
What are the warranties?

- Granite State Solar's workmanship guarantee is 12 years
- All solar panels GSS offers have a 25 year warranty
- Enphase microinverters have a 25-year warranty
- Racking and system component warranties vary (see previous slides)



How do I know I will get what I've paid for?

- Enphase has built a beautiful monitoring system called the Enlighten Manager.
- It allows consumers to monitor the production of their array in real-time and over time.
- Both the customer and GSS will receive email alerts should anything ever go wrong.
- These alerts trigger action related to both the inverters and the solar panels, regardless of brand.



What is the difference between micro inverters vs string inverters?

We use micro inverters for residential systems to realize a myriad of benefits:

- With micro inverters, each panel has it's own inverter to convert DC to AC power - at the panel.
- Because this system connects the panels in parallel (instead of in series as with a string), a shaded panel exhibiting high resistance will not impact the production of adjacent panels. The shaded panel is bypassed.
- If one panel or inverter were to fail, the remainder of the system continues to work properly and continues to produce energy.
- Monitoring at the panel-level is enabled (not just the system level).
- Transmitting AC current is inherently safer than transmitting DC current (think welding).
- Modularity and scalability – plug and play at any time.
- Rapid-shutdown compliance – if grid power is lost, inverters stop transmitting power automatically (no fried linemen).



What are REC's?

- Renewable Energy Credits (REC's) are what the utility companies purchase at auction to meet their Renewable Portfolio Standards (RPS).
- In lieu of purchasing RECs, the utilities may either meet their RPS or make an alternative compliance payment.
 - RPS dictate that utilities must generate 25% of their power from renewable sources (such as wind, hydro and solar) by 2025.
- Our customers help the utilities meet their Renewable Portfolio Standards!



Questions?



