

Selectmen's Meeting
Minutes-Monday, May 9, 2016
Sunderland Town Office Bldg.

Attendees: Scott Bergeron, Tom Fydenkevez, David Pierce, Sherry Patch
Guests: Beth Greenblatt, Director Beacon Integrated Solutions
Behind the Camera: Marina Korpita/FCAT

Call to Order

Meeting called to order at 6:38 PM.

Reorganization

- The board reorganized following the May 7, 2016 Annual Town Election of Officers. The following nominations and votes were recorded:

Nomination for Chairman

MOTION: Mr. Pierce to nominate Tom Fydenkevez Chairman.

SECOND: Mr. Bergeron

VOTED: 3-0

Nomination for Vice Chairman

MOTION: Mr. Fydenkevez to nominate Scott Bergeron Vice Chairman

SECOND: Mr. Pierce

VOTED 3-0

Nomination for Clerk

MOTION: Mr. Bergeron to nominate David Pierce Clerk

SECOND: Mr. Fydenkevez

VOTED: 3-0

Appointments-Solar Project Update Beth Greenblatt, Director Beacon Integrated Solutions

- Ms. Greenblatt gave an overview and update of the two solar projects. Ms. Greenblatt advised Kearsarge Energy filed applications for interconnection with Eversource in early July 2015. However, due to resource constraints at Eversource, the anticipated timelines for completion of the review, analysis and approval of the interconnection for both facilities (Public Safety Complex and Elementary School) were significantly delayed, beyond the tariff timelines. Kearsarge's original proposals contemplated installing 300kW AC system at the Elementary School and 150 kW AC system at the Public Safety Complex. Kearsarge filed interconnection applications with Eversource. As required under the tariff, Eversource conducted a Group Impact Study. On April 28, 2016 Eversource issued the report detailing the system upgrades and modifications required on Eversource's distribution system to interconnect the two systems. Unfortunately, due to interconnection costs the projects as originally proposed are no longer economically viable. However, Kearsarge would like to work with the town on a behind the meter project at the Sunderland Elementary School. Ms. Greenblatt advised that although the project is smaller the economics of the project are still attractive and meet the project goals economic, environmental and education. Mr. Fydenkevez stated that the project is a good educational tool for the Sunderland Elementary School and a good way to



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Memo

To: Sherry Patch, David Pierce, Tom Fydenkevez and Scott Bergeron
From: Beth Greenblatt, Owner's Agent
CC: David Doneski, Town Counsel
Date: May 5, 2016
Re: Solar Photovoltaic Project Update

Folks:

Beacon is pleased to provide the following update with respect to the proposed ground-mounted solar photovoltaic systems to be installed by Kearsarge Energy at the Sunderland Elementary and the Public Safety Complex. Since my last presentation at the Board of Selectmen meeting in September 2015, I am pleased to report that a clearer path to success has been paved for the anticipated project at the Sunderland Elementary School.

Background:

In early June 2015, the Town officially notified Kearsarge Energy that it was selected to design, construct, own and operate solar photovoltaic systems at the Sunderland Elementary School and the Public Safety Complex.

Kearsarge Energy and the Town commenced contract negotiations, with the support of Town Counsel and Beacon. Kearsarge began in earnest to entitle the project by addressing the local permitting requirements and the Eversource interconnection process. A summary of those efforts is detailed below:

- **Local Permitting:** Kearsarge Energy has secured all required non-ministerial permits from the Planning Board and the Conservation Commission. The Building and Electrical permits will be secured just prior to the commencement of construction.
- **Utility Interconnection:** Kearsarge Energy filed its applications for interconnection with Eversource Energy (formerly Western Massachusetts Electric Company) in early July 2015. Due to resource constraints at Eversource, the anticipated timelines for completion of the review, analysis and approval of the interconnection for both facilities were significantly delayed, well beyond the tariff timelines.

Kearsarge Energy's proposals contemplated installing 300 kW AC system at Sunderland Elementary School and 150 kW AC system at the Public Safety Complex. These sizes are consistent with the project sizes contracted with Broadway Renewable Solution and for which interconnection agreements with Eversource Energy were executed with minimal cost obligations imposed by Eversource Energy.

After a more detailed site analysis and various conversations with Eversource Energy about potential system upgrade requirements, Kearsarge Energy filed interconnection applications

with Eversource for a 300 kW AC and 242 kW AC system at the Elementary School and a 160 kW AC and 112 kW AC system at the Public Safety Complex. Under the tariff, Eversource Energy will conduct its Group Impact Study on varying size facilities to allow customers to optimize their projects.

On April 28, 2016, Eversource Energy issued its Group Impact Study Report detailing the system upgrades and modifications required on Eversource's distribution system to interconnect each of the two systems to their distribution system.

The Eversource Group Impact Study Report indicated the following upgrade costs for the system sizes proposed if projects were pursued at both locations. The cost below reflects an estimated cost and is subject to an additional +/-25% true-up.

Option 1: \$660,000

- Sunderland Elementary School @300 kW AC
- Public Safety Complex @242 kW AC

Option 2: \$510,000

- Sunderland Elementary School @242 kW AC
- Public Safety Complex @160 kW AC

Option 3: \$660,000

- Sunderland Elementary School @300 kW AC
- Public Safety Complex @112 kW AC

Option 4: \$500,000

- Sunderland Elementary School @242 kW AC
- Public Safety Complex @112 kW AC

According to Eversource, each of the above project sizes, except the 242 kW AC project at the Sunderland Elementary School required a Direct Transfer Trip, and expensive control to disconnect the facility from feeding the distribution system. As a result, Kearsarge Energy concluded that the only cost effective project to pursue is the smaller 242 kW AC project at the Sunderland Elementary School.


Revised Project Benefits:

Due to a size reduction of approximately 19% at the Sunderland Elementary School, coupled with the elimination of the project entirely at the Public Safety Complex, Kearsarge Energy advised the Town that its offer of 12.5% discount to the net metering credit rate at Sunderland Elementary School was no longer financial viable and therefore not financeable. Kearsarge Energy subsequently proposed a 7.5% discount rate to the net metering credit rate.

Relying on the same assumptions used to determine the original project benefits, including an updated conservative estimate for the value of net metering credits, Beacon presents below the current economic benefits expected from the smaller system at Sunderland Elementary School. Please note that given the smaller size, the personal property tax was reduced from \$6,000 annually to \$4,800 annually. Beacon relied on the same methodology used in collaboration with the Town's former

Assessor to determine the lower personal property tax requirement. Naturally, the Board of Assessors would ultimately approve the amount.


The following chart presents the revised analysis using highly conservative assumptions pertaining to the rate of net metering over the 20-year term. As shown below, for the purpose of this analysis, net metering is assumed to be static over the term and escalating at one-percent per year.

	KEARSARGE INDEXED PRICE ASSUMING NET METERING ESCALATED AT 0%		KEARSARGE INDEXED PRICE ASSUMING NET METERING ESCALATED AT 1%	
	Avoided Cost - Reduce Requirements	Net Meter to Eversource	Avoided Cost - Reduce Requirements	Net Meter to Eversource
PROJECT OVERVIEW				
Project Size kW DC	310.00	310.00	310.00	310.00
Project Size kW AC	242.00	242.00	242.00	242.00
Total Overall Generation in Year 1	360,000		360,000	
Total Overall Generation over 20-Year Term	6,868,045		6,868,045	
Total Generation in Year 1	190,000	170,000	190,000	170,000
Total Generation over 20-Year Term	3,624,802	3,243,244	3,624,802	3,243,244
PROJECT COSTS - PAYMENTS TO KEARSARGE				
Generation Price Year 1 [1]	\$0.1051	\$0.1051	\$0.1051	\$0.1051
Generation Price Year 20	\$0.1051	\$0.1051	\$0.1269	\$0.1269
Net Metering Discount [2]	7.5%	7.5%	7.5%	7.5%
Annual Escalator	0.0%	0.0%	1.0%	1.0%
Floor Rate	\$0.0000	\$0.0000	\$0.0000	\$0.0000
All-in Vendor Fee				
Year 1	\$19,964	\$17,862	\$19,964	\$17,862
Over 20 Yr Term	\$380,865	\$340,774	\$418,619	\$374,554
PROJECT BENEFITS - SAVINGS AND CREDITS TO SUNDERLAND				
Avoided Cost/Net Metering Credit Rate Assumption				
Year 1	\$0.12604	\$0.11359	\$0.12604	\$0.11359
Over 20 Yr Term	\$0.12604	\$0.11359	\$0.15227	\$0.13723
Illustrative Conservative Annual Escalator	0%	0%	1%	1%
Rate Tariff	G-2	G-2	G-2	G-2
Illustrative Credit Benefit				
Illustrative Avoided Cost/Net Metering Year 1	\$23,948	\$19,311	\$23,948	\$19,311
Illustrative Avoided Cost/Net Metering Over Term	\$456,875	\$368,404	\$502,163	\$404,923
OVERALL NET SAVINGS TO TOWN FROM SOLAR PROJECT				
Net Metering				
Year 1	\$3,984	\$1,448	\$3,984	\$1,448
Over 20 Yr Term	\$76,010	\$27,630	\$83,544	\$30,369
Illustrative Tax Revenues				
Year 1	\$4,800		\$4,800	
Over 20 Yr Term	\$96,000		\$96,000	
TOTAL				
Year 1	\$10,232		\$10,232	
Over 20 Yr Term	\$199,640		\$209,913	
FIRST YEAR IMPACT OF SAVINGS ON OPERATING BUDGET				
Annual Electricity Cost	\$86,417		\$86,417	
Year 1	11.84%		11.84%	
Approx Over 20 Yr Term	11.55%		12.15%	

- [1] While Kearsarge's rate would be higher under the Avoided Cost block, they have agreed to charge the Net Metered rate for all generation.
 [2] The effective discount rate of the Avoided Cost generation is approximately 16% since Kearsarge is charging less for Avoided Cost generation.

EVERSOURCE RATES	G-2 Avoided Cost	G-2 Net Meter
Basic Service (Ave July 14-June 16)	\$0.10614	\$0.10614
Distribution	\$0.02135	\$0.00890
Transmission	\$0.00000	\$0.00000
Transition	-\$0.00145	-\$0.00145
TOTAL	\$0.12604	\$0.11359

For your convenience and reference, provided below is the original overview of the project economics from both projects as presented to the Board of Selectmen and the Planning Board.

	KEARSARGE FIXED PRICE WITH ESCALATOR		KEARSARGE INDEXED PRICE	
	Sunderland Elementary School	Public Safety/Combined Complex	Sunderland Elementary School	Public Safety/Combined Complex
PROJECT OVERVIEW				
Project Size kW DC	390.60	195.30	390.60	195.30
Project Size kW AC	300.00	150.00	300.00	150.00
Generation in Year 1	460,908	230,454	460,908	230,454
Generation over 20-Year Term	8,793,159	4,396,579	8,793,159	4,396,579
PROJECT COSTS				
Generation Price Year 1	\$0.0860	\$0.0880	\$0.0949	\$0.0954
Generation Price Year 20	\$0.1247	\$0.1272	\$0.0949	\$0.0954
Annual Escalator	2.2%	2.2%	0.0%	0.0%
Floor Rate	N/A	N/A	\$0.0000	\$0.0000
All-in Vendor Fee				
Year 1	\$39,637	\$20,280	\$43,737	\$21,994
Over 20 Yr Term	\$912,455	\$466,028	\$834,416	\$419,592
PROJECT BENEFITS				
Net Metering Credit Rate Assumption				
Year 1	\$0.10845	\$0.10845	\$0.10845	\$0.10845
Over 20 Yr Term	\$0.10845	\$0.10845	\$0.10845	\$0.10845
Illustrative Conservative Annual Escalator	0%	0%	0%	0%
Rate Tariff	G-0	G-0	G-0	G-0
Illustrative Credit Benefit				
Illustrative Net Metering Year 1	\$49,985	\$24,993	\$49,985	\$24,993
Illustrative Net Metering Over Term	\$953,618	\$476,809	\$953,618	\$476,809
PROJECT REVENUES				
Illustrative Personal Property Tax				
Year 1	\$6,001	\$3,301	\$6,001	\$3,301
Over 20 Yr Term	\$120,020	\$66,020	\$120,020	\$66,020
OVERALL NET SAVINGS TO TOWN FROM SOLAR PROJECTS				
Net Metering				
Year 1	\$10,348	\$4,713	\$6,248	\$2,999
Over 20 Yr Term	\$41,163	\$10,781	\$119,202	\$57,217
Illustrative Tax Revenues				
Year 1	\$6,001	\$3,301	\$6,001	\$3,301
Over 20 Yr Term	\$120,020	\$66,020	\$120,020	\$66,020
TOTAL				
Year 1	\$16,349	\$8,014	\$12,249	\$6,300
Over 20 Yr Term	\$161,183	\$76,801	\$239,222	\$123,237
FIRST YEAR IMPACT OF SAVINGS ON OPERATING BUDGET				
Annual Electricity Cost				
Year 1	18.92%	9.27%	14.17%	7.29%
Approx Over 20 Yr Term	9.33%	4.44%	13.84%	7.13%

Further, in order to minimize the Eversource Energy distribution system upgrade costs, Kearsarge's design interconnects the solar facility behind the Sunderland Elementary School's building meter instead of interconnecting directly to the utility. Please note that the value of the electricity generated that is consumed by the building, referred to as Avoided Cost in the above table, is greater than the net metering credit rate. This is because there are fewer components of the electricity tariff permitted for recovery under the net metering rules and Avoided Costs include avoided demand charges.

Notwithstanding, Kearsarge Energy has agreed to charge the same rate for electricity consumed by the building and excess electricity net metered to Eversource Energy, despite the difference in the compensation rates to the Town.

Finally, Beacon notes that the Sunderland Elementary School has entered into a third-party competitive supply contract with Constellation for a term expiring with the meter read in September 2017. Beacon has reviewed the contract, discussed the implications of the solar generation on the building's electricity requirements with the Town, Frontier Regional School District and Constellation. Under the terms of the Regional School District's contract with Constellation, Sunderland Elementary School has an open obligation to purchase electricity, with no minimums or maximums. Constellation confirmed Beacon's assessment. Beacon has therefore concluded that the solar generation fed into the building, which reduces the buildings electricity requirements, and purchasing needs, has no negative financial impact with respect to the contractual relationship with Constellation. Beacon has sought guidance from Town Counsel.

Regulatory/Legislative Update:

As the Town is aware, on April 11, 2016, Governor Baker signed into Law a bill supporting the increase in net metering program capacity; thereby eliminating the risk to the Town regarding securing a net metering cap allocation. Further, after an abrupt suspension of the Solar Carve-Out SREC II Program in early February 2016, the Department of Energy Resources on April 8, 2016 issued an Emergency Regulation extending the program for nine months.

Under the Emergency Regulation, Kearsarge Energy is required to demonstrate by January 8, 2017 that the solar photovoltaic array at Sunderland Elementary School is mechanically complete. The system does not need to be fully interconnected to Eversource Energy, but it must be mechanically complete and able to interconnect to the utility. If the array is not mechanically complete, the project will not receive solar renewable energy credits under the SREC II program, the anticipated SREC revenue to Kearsarge Energy would be significantly reduced, and Kearsarge Energy would likely seek relief from the Town.

Given the foregoing, it is Beacon's recommendation for the Town to determine whether the economic benefits from the resulting project at the Sunderland Elementary School remains sufficiently viable to pursue.