

MINUTES
ENERGY EFFICIENCY AND CONSERVATION COMMITTEE
MARCH 11, 2013 – 4:30 P.M.
TOWN HALL ANNEX – COMMUNITY ROOM 1

I. ROLL CALL

Present: Syma Ebbin, Len Mediavilla, Mark Oefinger, Bill Robarge, Rita Schmidt, Gary Schneider, Luke Singh, Zell Steever, John Sutherland, Bob Quevreaux (5:25 p.m.)
Excused: Genevieve Cerf, Michael Murphy
Staff: Norris

Schmidt called the meeting to order at 4:36 p.m.

II. APPROVAL OF MINUTES of meeting of January 14, 2013

MOTION: To approve the minutes of January 14, 2013 as presented.

Motion made by Singh, seconded by Schmidt. Motion passed unanimously.

III. PUBLIC COMMUNICATIONS - None

IV. PRESENTATION

1. Presentation: “Flanders Road Landfill Solar Development Potential – Review of Existing CT Solar Incentive Programs and Potential Opportunities for the Landfill” – Amy McDonough, Borrego Solar

Amy McDonough, Borrego Solar, gave a presentation to the Committee for potential options for the Town to develop a solar project on the Town landfill on Flanders Road.

Ms. McDonough reviewed the history and experience of Borrego Solar, an engineering and design consultant for solar development. They do all their own engineering and design, in partnership with Tighe & Bond, also the engineers of record for the Flanders Road Landfill closure. They work in cooperation with closed landfills and have partnered on 11 projects in MA. Tighe & Bond does the geotechnical, drainage, and other technical analyses.

Ms. McDonough discussed the regulatory framework for solar energy in Connecticut, which requires electric suppliers to get 23% of their retail load from renewable energy by January 2020. The portfolio standard and the ZREC (zero renewable energy certificate) program were explained.

Len Mediavilla updated on the City of Groton Utilities’ status with regard to solar. The committee discussed the two separate utilities (CL&P), how GU might be able to take advantage of these credits or wheel some to GU and some to CL&P, trading money rather than running poles, etc. Both utilities currently buy from the same source.

Utilities must enter 15 year contracts for ZRECs Class 1, net metered, renewable energy facilities up to 1 mw in size. Utilities are required to spend \$80M on contracts over the next 4 years. Winning bids are evaluated based on: project quality, proposed ZREC price, and compliance with the RFP process.

Ms. McDonough reviewed purchase and lease process, the PPA rate, ZREC pricing, virtual net metering for municipal customers.

Utilities can own up to 10 MW Class 1 renewable generation capacity. The program is open until 7/1/13. A system is less expensive to locate on a greenfield vs. a landfill. The difficulties of placing a system on a landfill, and of finding space for a 5 MW system were explained.

The Town of Groton's 40 acre solid waste landfill closed with a membrane cap in 1991. There is limited reuse potential. The slopes are at less than 6%. Many ballasted racks could fit on the land, and there is three-phase power at street. There are no wetlands, aquifers, or groundwater quality issues. With regard to zoning, solar is not an allowed use in the IP-80B zone, but it was generally felt that an amendment to the zoning regulations would not be an issue. A rendering of a 5.3 MW DC system was shown. The committee discussed flaring, and the cap with regard to profile, piping, load, and ballast. Access roads would need to be built to support heavy equipment to move the panels onto the landfill. The goal is to minimize impacts. The site would be maintained as far as mowing, etc. by Borrego. The standard wind load was a consideration in cost because of ballast. No effects from snow are anticipated. The height, number of panels and racks (17,000 panels, 20 panels per rack) were reviewed. Any maintenance responsibilities of the Town were discussed. If Borrego owned the system, they would operate for 20 years. They would wash the panels once a year, and continuously monitor them. Equipment warranties were reviewed. The committee discussed the rate of .5% degradation per year in modules, module failure, and phasing of replacement of modules due to the large number and cost.

Ms. McDonough detailed two options for the committee.

Option 1:

Wait for new Section 127 Program (utility contract), CL&P releases an RFP for grid-side projects; Borrego prepares a proposal with Town involvement, CL&P awards, Borrego designs, constructs, operates and maintains and owns. The power is sold directly to CL&P. CL&P owns the environmental attributes.

Annual lease payment benefit to the Town would be \$100,000.

The committee asked about phasing in at a 1MW system at a time on the landfill, eventually up to 5 systems. Ms. McDonough believed that only one 1 KW system is allowed per property.

Option 2: CT ZREC solicitation; the system resized to 1 mw or less; Groton owns and pays for the system; Borrego prepares ZREC application; Borrego designs, constructs and operates and maintains (if the Town wants them to). The cost would be \$3,000,000; generates 1488 ZRECs; \$140,000 utility offsets and \$200k for ZRECs would provide \$340,000 maximum return per year.

Financing would be through municipal bonds or low-interest loan with Borrego; net of \$2.3M over 20 years (approximately \$62K yearly after all expenses/debt). Modules have a 25 year warranty. Effect of rate on power costs were factored in. Inverter replacement would be needed in year 15. The life cycle of the physical equipment was discussed. The scrap value of a 2 MW system is about \$200K.

The Town could do a 5 MW system for 20 years; after that, do another 5 MW system for 20 years, as long as the cap is not compromised.

The committee discussed the various options, and the economics of lease vs. ownership.

Gary Schneider said the only other potential uses for the site are for sledding or maybe a model airplane club.

Settling at landfill and any effect on the system was questioned. Ms. McDonough said the site is probably already mostly settled.

Any will send the slides and a spreadsheet to Rick Norris for distribution to the committee members.

The committee discussed the options explained. It was noted that the Town does not have any other site location for a smaller I MW system.

V. NEW BUSINESS

1. Discussion of Energy Action Plan for Groton

Norris asked the committee to table this discussion until the next meeting. He explained that the final version was sent back to consultant to allow them to clean up the formatting. When that is completed, it will be sent to the printer and distributed to the committee and various other Town agencies. He will check with the contractor, but expected it won't take more than a couple of weeks.

VI. REPORT OF STAFF

Series of projects are out of the Capital Improvement Plan for the Town; a lighting project at Town Hall was added to the CIP.

The EECBG grant was closed out and all funds were expended. A small overage for the library lighting project came from library funds.

The Board of Education has efficiency projects proposed at various schools, at a cost of about \$80,000. There will be a public hearing on March 28th at 7:00 p.m. at the Senior Center. Staff asked the committee if they would support a resolution to endorse the projects. There will be another opportunity to address the RTM a month later at a public meeting which the members could attend. This item will be added to the next agenda and the narratives of the projects will be provided. Some rebates that came from other projects, approximately \$18,000, are in an account earmarked for future energy projects. Mark Oefinger said the mechanics of using some of those funds for part of the \$80,000 were not worth it, in Mark's projects. Savings from these proposed projects will go into account. We will email two sheets to the committee members. The Board of Education has several projects lumped together, approximately \$30,000.

Some committee members did not receive bios previously distributed. Staff will make copies available of those that have been received. No representative from the Sub Base has been found yet.

Staff distributed updated list of members' information.

VIII. ADJOURNMENT

The meeting adjourned at 6:10 p.m.

Motion made by Singh, seconded by Ebbin. Motion passed unanimously.