

ENERGY CONSERVATION COMMITTEE

CLIFFORD J. HURGIN MUNICIPAL CENTER

1 SCHOOL STREET, BETHEL, CT. 06801

MEETING ROOM "A"

THURSDAY, September 7, 2012

7:00 P.M.

Regular Meeting

MINUTES

PRESENT: Chairman, Bill Cratty, Members: Hank Karl, Gary Pedone and Bill Hillman, and Mark Anderson

ALSO PRESENT: Town of Bethel, Staff Engineer, Bill Dwinells, and Andy Merola, Connecticut Conference of Municipalities, Energy Program Manager.

ABSENT: Randi Oisher, Fred Zalzman, and Keith Watson and David Dunn

CALL TO ORDER: Chairman Bill Cratty called the meeting to order at 7: 01 P.M. followed by the Pledge of Allegiance.

PUBLIC INPUT: None

APPROVAL OF MINUTES: Gary Pedone made the motion to approve the minutes of the last meeting. The motion was seconded by Bill Hillman. Vote, all in favor, motion unanimously approved.

CCM ENERGY EFFICIENCY PROGRAM: Attorney Merola representing CCM made a presentation explaining their program (SEE ATTACHED).

SOLAR PROJECT UPDATE: No status updates as of yet. Anticipated updates once the legislative session begins.
First Selectman, Knickerbocker to meet with Andrew Morosky regarding the landfill cap.

FUEL CELL UPDATE: DEEP will be holding a session in Hartford on the Public Act effecting Emergency Preparedness and Response. Anticipated discussion will be covering Micro-Grids in combination with "EID" Energy Improvement District.

RECEIVED

2012 SEP - 7 P 4 28

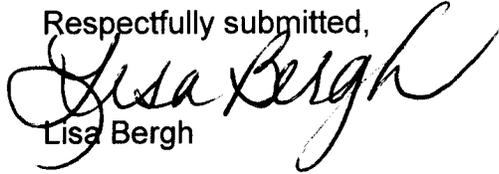
**TOWN OF BETHEL
TOWN CLERK**

NEW BUSINESS: None

ADJOURN: Bill Hillman made a motion to adjourn; motion was seconded by Gary Pedone. Vote, all in favor, motion unanimously approved.

Meeting adjourned 8:23 P.M.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Lisa Bergh', written in a cursive style. The signature is positioned above the printed name 'Lisa Bergh'.

Lisa Bergh



CCM Energy Solar Photovoltaic (PV) Program

Connecticut's ZREC program offers municipalities an opportunity for substantial savings on electric costs. CCM Energy's Solar PV program competitively procures long-term Power Purchase Agreements (PPAs) for CCM-member municipalities and their school districts, providing long-term savings and budget certainty that requires no capital investment.

Why CCM Energy?

- ✓ Ongoing RFQ process for competitively selected solar developers
- ✓ Competitively negotiated PPAs provide fundamentally equivalent terms and conditions
- ✓ Large group of program participants ensures continuing interest among solar developers
- ✓ Competitively bid pricing yields lower per kWh cost
- ✓ Expert, reliable advice and assistance throughout the process including negotiating with your current supplier if required by your current (non-CCM Energy) supply agreement (CCM Energy's electric supply agreements already include this option)

How does my municipality or school district participate?

1. Identify any rooftops or sections of rooftops that meet the following specifications:
 - a. Installed or replaced since 2002
 - b. With at least 10 years of roof warranty remaining
 - c. On a building that consumes 100,000 kWh or more per year
 - d. With a total roof area of at least 15,000 square feet

Ground mounted systems also are good candidates provided there is a nearby electric load of 100,000 kWh or more per year and at least 15,000 square feet of open un-shaded land. **Many wastewater plants may have room for solar arrays on adjacent acreage or on racking systems superimposed over holding tanks.**

2. Send us the address of the building(s)
3. Review with us via conference call Google Earth photo(s) to confirm initial suitability
4. If it makes sense to proceed:
 - a. Sign a Participation Agreement
 - b. Complete a more detailed survey questionnaire
 - c. Provide a signed utility data release authorization form and a recent utility bill for the relevant account(s)

Important upcoming dates (*because we anticipate considerable interest in the program, we encourage you to begin investigating this opportunity today*):

September 19, 2012: CCM Energy Solar PV Webinar

October 15, 2012: Steps 1 - 3 completed

November 1, 2012: Step 4 completed

For additional information, contact Andy Merola at (203) 498-3056, or amerola@ccm-ct.org.

Why should municipalities and school districts act now?

Funding made available for Connecticut's new program (explained below) is limited and competition for that funding is fierce. In addition, these "behind the meter" projects (the solar array produces power that reduces the amount of electricity delivered to the meter) offer savings on both the supply (generation) and transmission and distribution (charged per kWh) of power. **Combining reduced generation costs with reduced transmission and distribution costs provides significant savings.** CCM Energy allows you to take full advantage of this new program. You gain a competitive edge and the ability to make informed business decisions with assistance from experts.

OVERVIEW OF STATE OF CONNECTICUT PROGRAM

Connecticut's legislature decided to subsidize solar development in the state by requiring the two electric utilities to enter into long-term contracts to purchase Renewable Energy Credits from these projects. On April 4, 2012, Connecticut's Public Utilities Regulatory Authority (PURA) approved a solicitation plan submitted by CL&P and UI for the purchase of Zero and Low emission Renewable Energy Credits (ZRECs and LRECs) from suppliers of renewable generation. CL&P and UI contract for the purchase of these Renewable Energy Credits once each year through an annual auction process. The next scheduled utility auction of these ZRECs is scheduled for April 2013.

To understand Connecticut's ZREC program you need to know that these solar PV projects require two separate and distinct procurements: a) the procurement of the PPA between the solar development company and the community (the contract that CCM Energy competitively procures), and b) the procurement of the contract for sale of the ZRECS (the contract between the solar development company and the utility). Proceeds from the sale of ZRECs are the economic driver behind solar PV projects, providing the lion's share of the annual revenue. As a result, success of these solar PV projects depends upon the ability to sell the ZRECS to the utility.

The good news is that Connecticut has decided to fund long-term ZREC contracts that will be awarded in annual auctions each year for the next 5 years. Total expenditures under this program are expected to be \$720 million over 20 years. The bad news is that competition for these ZREC contracts is fierce. Ultimately, any procurement of a solar PV project must be structured in a fashion that maximizes the potential for success in these annual ZREC auctions. Finally, according to the US EPA, renewable energy:

- Produces no anthropogenic greenhouse gas emissions and reduces air pollution
- Diversifies energy supply and reduces dependence on imported fuels
- Creates economic development and jobs in manufacturing, installation, and more

CCM SOLAR PV PROCUREMENT PROGRAM

In response to this new state initiative, CCM expanded its Energy Purchasing Program to include procuring solar power to replace some of the power that is already being supplied under your long-term electric supply agreement. For CCM-procured electric supply agreements we negotiated a provision that allows you to do this. If you have a non-CCM supply contract that conflicts with Connecticut's solar program, we will attempt to negotiate an amendment with

your supplier that will allow for it. CCM has contracted with Bay State Consultants to implement these solar procurements on behalf of interested CCM members.

Solar Power Purchase Agreement

Agreeing to a 20-year electricity purchase commitment without the benefit of expert advice and assistance as well as multi-supplier competition is not advisable. *CCM Energy's competitive procurement model provides key advantages that produce significant results*, including beneficial PPA terms and conditions and lower per kWh pricing, which provide savings and reduced risk for participating municipalities and school districts. We will competitively procure a contract that requires the solar company to design, construct, finance, own, operate and maintain the solar equipment for the life of the equipment (typically 20 years). There is no capital investment by the community. Instead, you agree to purchase the power generated by the solar arrays during the 20-year term of the contract.

How to Proceed

The first step is to identify a group of CCM-member municipalities, their school districts (including all regional schools districts) and local public agencies interested in having us develop a solar PV project through competitive procurement of a PPA. The solar arrays can be located on the rooftops of schools and other municipal buildings, or ground-mounted on acreage adjacent to targeted buildings. The key is to find buildings with relatively new rooftops (installed or replaced since 2002, metal roofs can be older) with a minimum of 10 years remaining in the roof warranty. At each location, we are looking for a minimum of 15,000 square feet of useable, un-shaded, space either on the roof or on adjacent acreage. As mentioned earlier, wastewater treatment plants are frequently ideal locations for solar arrays.

If you are interested in exploring this opportunity, we will review Google Earth satellite images of potential sites with you as an initial screening process. Once final site selection is completed, we will ask potential bidders to make on site evaluations prior to submitting a bid.

Potential Savings

Three or four solar projects might collectively yield 500 KW of solar capacity with the potential to generate somewhere between \$11,000 per year and \$35,000 per year in savings off of your current electric budget. (Four projects in East Hartford awarded in the first round with a combined capacity of 591 KW are expected to generate \$42,000 in first year savings). These solar agreements run for the lifetime of the solar equipment, typically 20 years, and could yield somewhere between \$220,000 and \$700,000 in total savings. Savings are impacted by project size, rate class, bid price, and other variables. We will prepare a savings estimate for your projects once we have the details available to do so.

CCM Role

We will help you to screen and nominate sites, and then we will develop the procurement documents, qualify the bidders, organize the site visits, evaluate the bids, negotiate the power purchase agreements, recommend the winning bidder and contract, and then monitor the project from contract execution through the start of construction. From start to finish this may be a 12 month effort.

CCM Energy Fee

We have structured the CCM Energy fee so that it is paid out of the financing of the solar project, if and when the solar project commences construction. If you do not elect to execute the solar agreement that we procure, no fee is paid. The fee is equal to \$.075 per watt of installed capacity (DC rating). For a 500 KW solar system, the total fee would be \$37,500 (payable by the winning bidder). This fee is included in the capital cost that is financed. The savings outlined above presume a capital cost that includes this fee.

Coordination with Utility ZREC Process

CL&P and UI will administer an auction for ZRECs in April 2013. The procurement that we initiate in November 2012 is designed to be concluded at least 30 days prior to this April 2013 deadline. The solar company that executes the PPA with you will bid the ZRECs from your project into that CL&P/UI auction. In order for the project to proceed the solar company will need to be successful in that CL&P/UI auction. We will design the CCM Energy power purchase procurement in a fashion that maximizes the potential for success in that subsequent CL&P/UI ZREC auction.

Results Achieved to Date

The CCM Energy Solar PV program is designed to negotiate favorable terms and conditions, competitive prices and do so on a schedule and in a manner that is compatible with the utility auction of ZRECs. For example, our Phase 1 program this past spring achieved the following results:

Competitive Process: 30 solar development companies replied, eventually leading to six finalists and three selected firms.

Favorable Terms and Conditions: We negotiated terms that allowed the buyer to substitute alternate sites for the arrays and or suspend service during the term to accommodate renovations and reconstruction activities.

Competitive Prices: We procured a price that is below current utility prices and fixed and flat for 20 years.

Compatible with CL&P ZREC process: Only 28% of the solar projects that submitted bids into the June 12th CL&P ZREC auction received ZREC awards, whereas *75% of the CCM Energy solar projects received ZREC awards*. Based on the lessons learned we expect to improve on that ratio in upcoming procurements.

Schedule

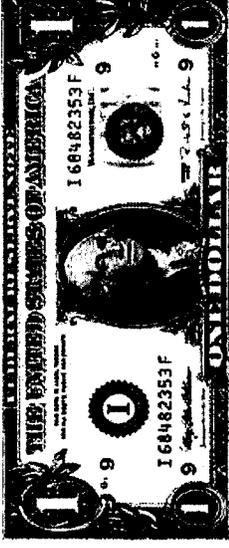
For the fall 2012 procurement effort we are attempting to identify solar projects of interested members by October 15. Appendix A provides a step by step schedule. If you are interested in learning more about this program please contact Andy Merola at (203) 498-3056, or amerola@ccm-ct.org.

Schedule for CCM Solar Procurement Fall 2012
CCM-member Activity in Blue

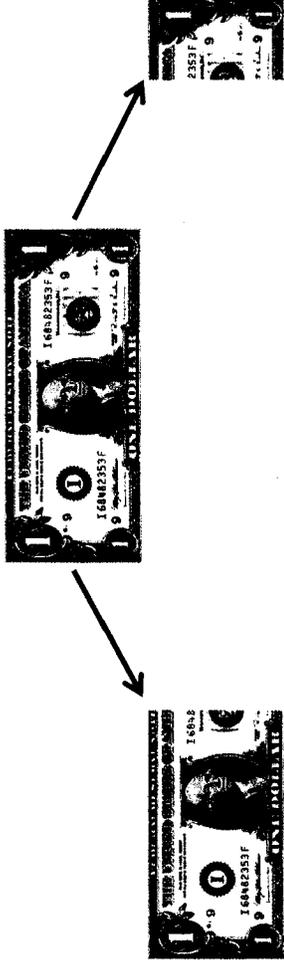
Step 1	Nominate potential sites (We can assist you with this process)	Oct 15
Step 2	Provide documents and details Complete site questionnaire Provide one recent utility bill for each site Provide Recent Audited Financial Statement Execute Participation Agreement	Nov 1
Step 3	Issue RFQ	Nov 15
Step 4	Host Site Visits by Bidders (We will organize and attend)	Early Dec
Step 6	Accept Bids	Late Dec
Step 7	Select finalists	Jan 15
Step 8	Host presentations by Finalists (We will coordinate with the companies and attend)	Late Jan
Step 9	Make final recommendation	Feb 1
Step 10	Execute Power Purchase Agreement	Mar 1
Step 11	Monitor Performance	Ongoing

CCM Energy Efficiency program

2012 – 2013 Municipal/School Budget



2012 – 2013 Municipal/School Energy Budget



In most buildings, 75% - 80% is used as intended: lighting, heating, cooling, etc.

But, 15% - 20% typically is wasted, providing no benefit

We capture the dollars paid for this wasted energy and use those funds to make much-needed improvements for which there are no or limited available funds with \$0 impact on your already approved energy and overall budgets

Contact: Andy Merola, amerola@ccm-ct.org; (203) 498-3056