

ENERGY CONSERVATION COMMITTEE

CLIFFORD J. HURGIN MUNICIPAL CENTER

1 SCHOOL STREET, BETHEL, CT. 06801

MEETING ROOM "A"

THURSDAY, JANUARY 20, 2011

7:00 P.M.

MINUTES

PRESENT: Chairman, Bill Cratty, Members: Gary Pedone, David Dunn, Fred Zalcman, and Randi Oisher.

ABSENT WITH NOTICE: Hank Karl, Nick Ellis, and Mark Anderson.

CALL TO ORDER: Chairman Bill Cratty called the meeting to order at 7:07 P.M. with the pledge of allegiance.

PRESENTATION BY ENERGY PROVIDERS: Secretary David Dunn made prior arrangements with multiple firms to present at scheduled times.

Sunlight Solar Energy: Carolyn Humphries presented to the committee. She gave a brief overview of her company, which she claims is the oldest most well established company. With over 550 installations of which the vast majority are residential, a smaller amount being commercial installations.

Carolyn explained that a monocrystal photovoltaic system has a life expectancy of 40-50 years; the inverter being the brains of the system would have a 10 year warranty. She is more than willing to be of assistance once the town has established which building it wants to utilize.

AM Rizzo Electrical Contractors, Inc. &

Sunlight General Capital, LLC: Art Mannon and Jay Mann made a presentation promoting Rizzo and Sunlight (see attached). Rizzo has been in business for 47 years, Art explained the benefits with contracting with Rizzo, and Jay Mann explained the financing portion of the project.

CT Electrical Services: Erik Anderson presented on behalf of owner Bruce Angeleszek who founded the company in 1994. They are primarily electricians, and are currently working on a 200 KW project in Manchester. Erik, being a Solar Energy Specialist explained how his company operates.

Ross Solar Group: Stephan Hartman prepared a hypothetical proposal for the Town of Bethel using information found in our minutes from the last meeting (see attached). Having done work for other municipalities Ross Solar has experience. They are currently installing a 350 KW system in Massachusetts.

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Bethel Town Clerk
RECEIVED

ECG Engineering, LLC: Richard Barrett and David Newman conducted their presentation with a power point program explaining the services offered by ECG Engineering. Their company consists of Engineers, Architects, Financial Advisors, Project Managers, etc. ECG handled much of Long Island School districts, branching out into CT and PA. Last year. They would perform a Preliminary Energy Audit, Prepare RFP's, Analyze and normalize proposals making them transparent, Assist in the selection of the best proposal, and design the project. Their fees are 5% if the project is 2 million dollars or more, and 7% if the project is under 2 million.

Alteris Renewables: Mark Rostafin also made a presentation utilizing a Power Point program. Alteris is based in Wilton, CT. employing approximately 140 people throughout the Mid Atlantic and New England. Alteris has an extensive resume of previous projects completed. Mark included information of the Connecticut Clean Energy Fund. Their Motto is Experience, Expertise, Results. They will take the project from start to finish, design, finance, obtain money from CCEF, have a project manager on site and maintain the system for its lifetime. Alteris has performed over 2000 installations which include Yale University, Brandeis University, and Avon Old Farms School among many others. Chairman Cratty asked how quickly they could come up with a proposal, Mark stated within a week. Time is of the essence in order to take advantage of the grant.

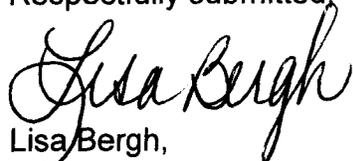
The next regularly scheduled meeting will be held on February 3, 2011.

ADJOURN:

Gary Pedone made a motion to adjourn; the motion was seconded by Randi Oisher. Vote, all in favor, motion unanimously approved.

Meeting adjourned at 9:25 PM

Respectfully submitted,



Lisa Bergh,
Recording Secretary

**Energy Conservation
Committee
Town of Bethel, CT**

A.M. Rizzo Electrical Contractors, Inc.
Sunlight General Capital LLC
January 20, 2010



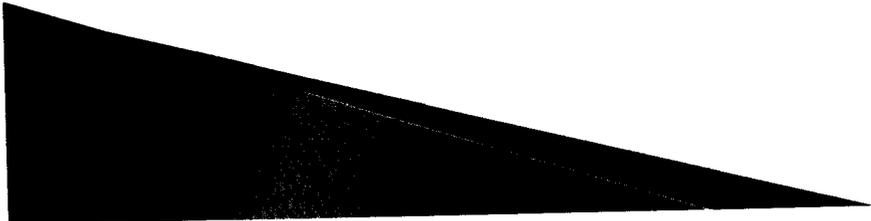
Committee Goals

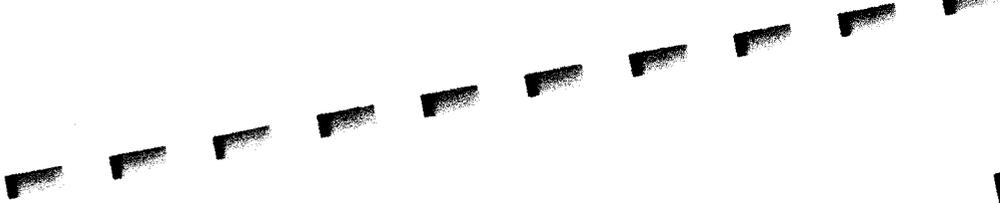
- ▶ Reduce Energy expenditures
- ▶ Reduce Carbon footprint





Reduce Energy Expenditures

- ▶ Consume Less
 - Energy Audit
 - CCEF - install measures 5 yr. Payback
 - ▶ Increase Energy Efficiency
 - Automated building controls
 - Combined Heat & Power
 - 80 - 90% efficiency v. 35%
 - ▶ Lower Cost Suppliers
- 



Reduce Carbon Footprint

- ▶ Energy Efficiency
- ▶ Energy Improvement District
 - Local Ordinance
- ▶ Alternate Generating Sources
 - Solar
 - CHP
 - Reciprocating engine
 - Fuel Cell



Reduce Carbon Footprint

- ▶ Carbon Free

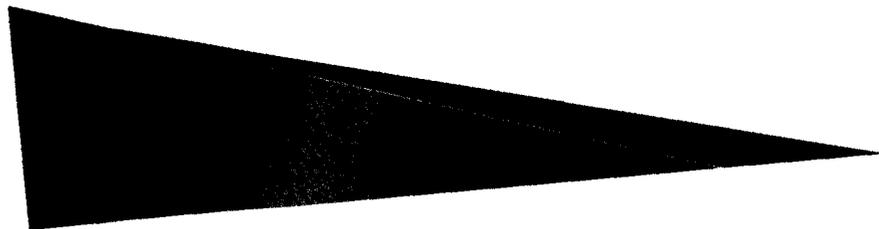
- Solar/CCEF Programs

- No Cash Outlay Financing

- Cost of efficiency measures may be included

- SunLight General Capital LLC

- Jay Mann, Principal





SunLight General Capital Overview

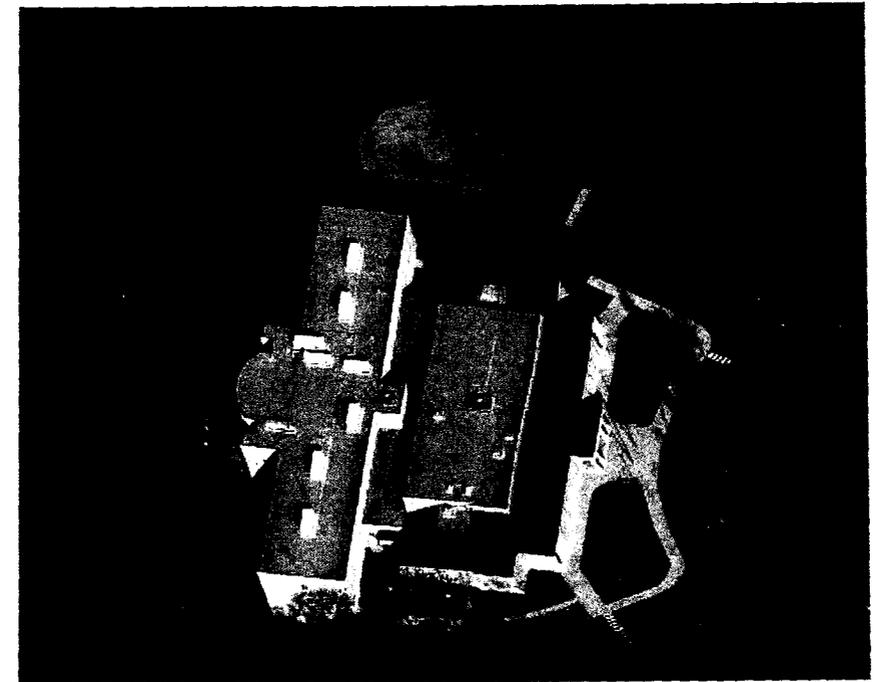
- ▶ Develops, invests in and operates distributed generation and solar projects in US Northeast.
 - ▶ Founded 2009 by senior banking, project finance and solar executives.
 - ▶ Initial fund SunLight General Solar Fund I, financed solar projects:
 - Bergen County Prosecutor's Office (115kW): Built and operational
 - Bergen County Parking Deck (630kW): under construction; expected finish date Feb 15, 2011
 - Teterboro Airport (696kW): first two hangars under construction; expected finish date Feb 28, 2011
- 

SunLight General Capital Overview

- ▶ Secured PSE&G project loans, meeting stringent criteria
- ▶ Connecticut Clean Energy Fund grant for +200kW solar installation Ansonia, CT High School.
- ▶ Raising SunLight General Solar Fund II, \$10-\$30 million, depending on near term project sourcing. Many Fund I investors plus new investors committed.
- ▶ Current Fund II project pipeline >1.5MW (\$5-\$6+/- million) including solar for a school, a not-for-profit, and a private manufacturing company.
- ▶ Most important criteria for new projects includes:
 - Size: 150kW >
 - Good quality roof / ground structures that require minimal repair
 - Site host with solid and demonstrable credit
 - SLG chooses EPC partner such as Rizzo

200 kW Installation Ansonia High School

- Solar Generating Facility
 - Rooftop: 200 kW system.
 - System host Ansonia High School, Ansonia, CT
 - Connecticut Clean Energy Fund grant \$2.14/watt (\$427,853)
 - Total cost of approx. \$5/watt
 - SLG 100% funding – no cost to Ansonia
 - Start March 2011
 - Completion April 2011
 - \$310,000 15-year cumulative savings (\$164,000 PV)
 - Plus demand charge and distribution savings



Value to Bethel for 2¢ Reduction

size of system 200 kw
 conversion 1100
 AC equivalent 220,000 kw

		Assumed Annual Increase:			
		8.50%	3.00%		
Year	Anticipated Electrical Output (kWh)	COST PER KWH (cents)		SAVINGS	
		Current	Solar	in cents per kWh	in total dollars
Year 1	220,000	\$0.1700	\$0.1500	\$0.0200	\$4,400
Year 2	220,000	\$0.1845	\$0.1545	\$0.0300	\$6,589
Year 3	220,000	\$0.2001	\$0.1591	\$0.0410	\$9,019
Year 4	220,000	\$0.2171	\$0.1639	\$0.0532	\$11,711
Year 5	220,000	\$0.2356	\$0.1688	\$0.0668	\$14,689
Year 6	220,000	\$0.2556	\$0.1739	\$0.0817	\$17,981
Year 7	220,000	\$0.2773	\$0.1791	\$0.0982	\$21,613
Year 8	220,000	\$0.3009	\$0.1845	\$0.1164	\$25,617
Year 9	220,000	\$0.3265	\$0.1900	\$0.1365	\$30,027
Year 10	220,000	\$0.3543	\$0.1957	\$0.1585	\$34,879
Year 11	220,000	\$0.3844	\$0.2016	\$0.1828	\$40,212
Year 12	220,000	\$0.4170	\$0.2076	\$0.2094	\$46,069
Year 13	220,000	\$0.4525	\$0.2139	\$0.2386	\$52,497
Year 14	220,000	\$0.4909	\$0.2203	\$0.2707	\$59,547
Year 15	220,000	\$0.5327	\$0.2269	\$0.3058	\$67,274

15-Year Cumulative Savings:	\$402,123
PV of Cumulative Savings:	\$200,771



Reduce Carbon Footprint

- ▶ Lower Carbon Emissions

- EID

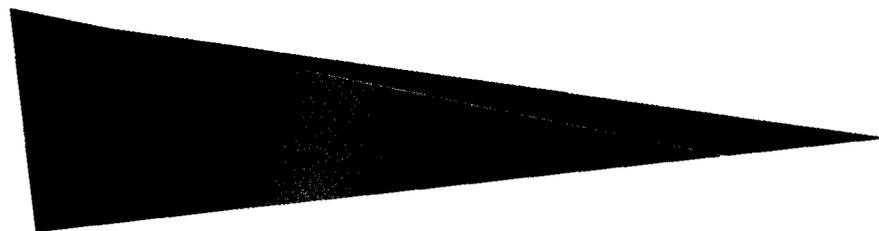
- CHP

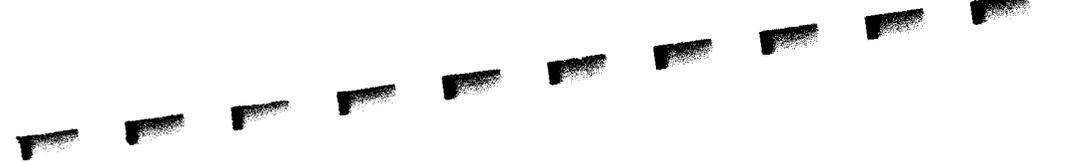
- Thermal load

- Fuel cells

- Gas Reciprocating engines

- Gas Turbines





Why the Rizzo Team

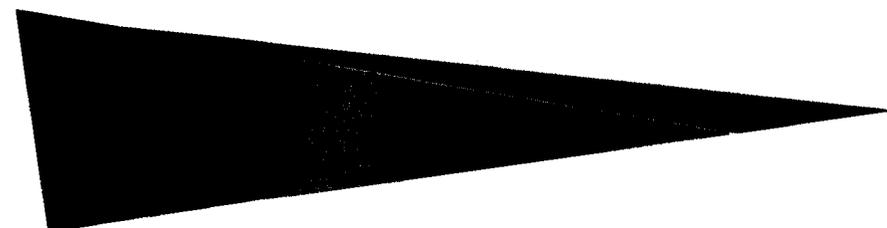
- ▶ **Electricity**

- 45 Years experience,
Generation, Interconnection
Operations and Maintenance
State contractor, bondable

- ▶ **Solar**

- Multiple installations
- Acceptance by CCEF
Ansonia High School
- Financing 100% – including conservation measures

- ▶ **CHP**

- Multiple installations
- 



72 Grays Bridge Road, #1C Phone: (203) 512.4500
Brookfield, CT 06804 Fax: (203) 517.0052

Info@RossSolarGroup.com
www.RossSolarGroup.com

Proposed Photovoltaic System for Town of Bethel: PV System Ownership Option

Ross Solar Group
January 20, 2011

System Size: 200 kW
Sharp – 230 watt module

@ \$4.75/watt	\$ 950,000
<u>Minus CCEF – OSDG Grant:</u>	<u>\$ 694,000</u>
Total Cost to the Town of Bethel	\$ 256,530

System Production (per year)

@ 10 degree pitch 180 degree azimuth	220,000 kWh (AC)
@ .15c/kWh	\$33,000/year

[Note: All RECs/SRECs are retained by the system owner.]

Advantages:

- The Bethel High School will have one of the largest grid tied solar electric system installed in the state of Connecticut.
- The educational value along with the PR value of such a system will benefit the town and school system for the next 25 years
- By installing such a system the town of Bethel and its officials will be demonstrating their commitment to renewable energy and the environment
- Electrical savings, and future SREC values can be used to repay loan/treasury for investment, putting Bethel on a path to substantial cash savings on the Town's energy needs

Return On Investment with electrical savings only (SREC not factored): 12.9%

Next Step:

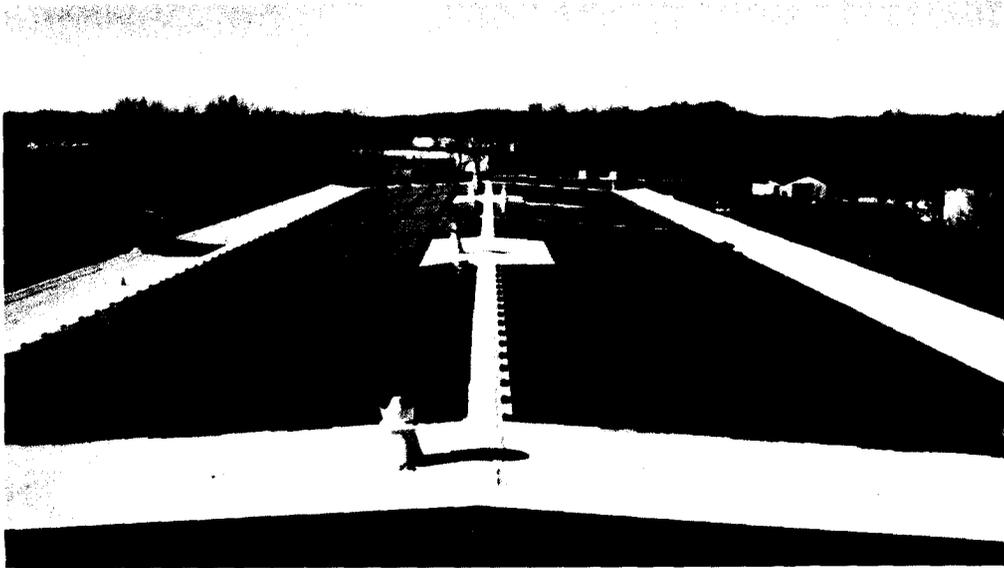
Signed Letter of Intent to proceed (Must be issued by early February in order to submit rebate application to CCEF by 2/28/11 deadline. Without securing the CCEF OSDG grant this proposal and project is not feasible).



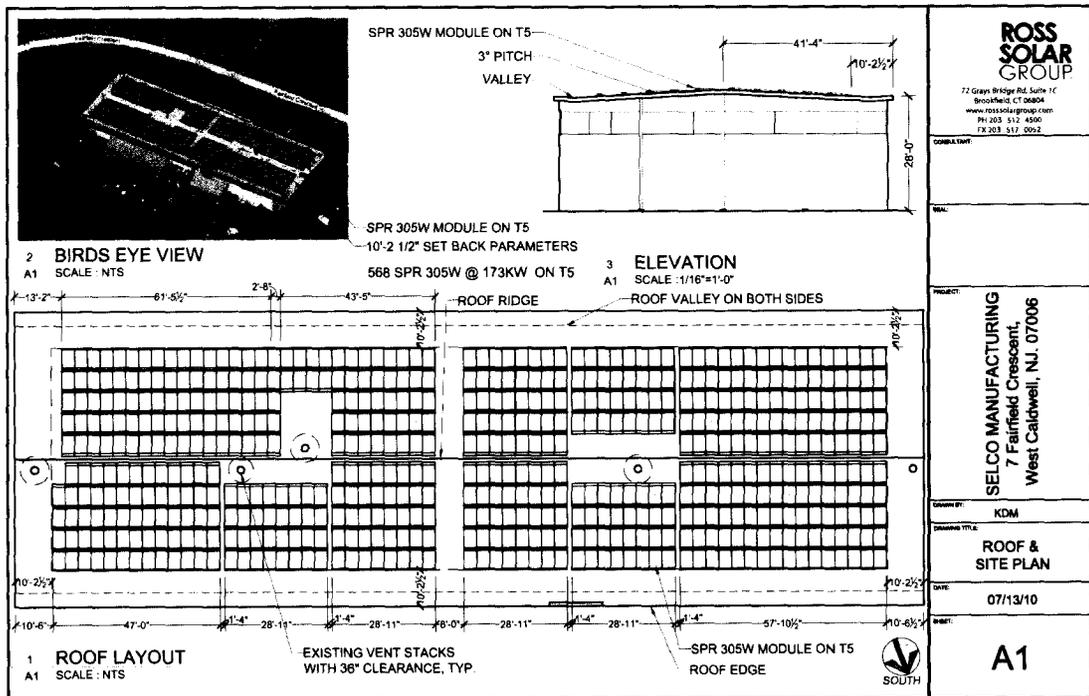
72 Grays Bridge Road, 1C Phone: (203) 512.4500
 Brookfield, CT 06804 Fax: (866) 271.3016

Info@RossSolarGroup.com
 www.RossSolarGroup.com

Example: 180kW Solar PV installation using the Sunpower T-5 Module
 Made in the USA



Designed and Installed by Ross Solar Group, December 2010
 568 modules laid out in less than 2 days
 West Caldwell, New Jersey





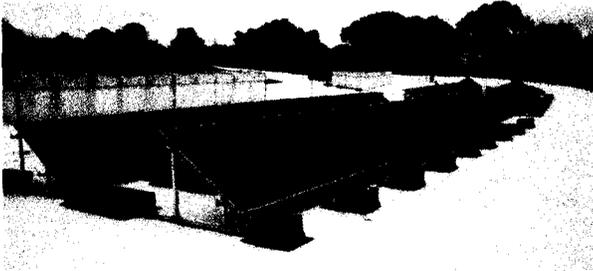
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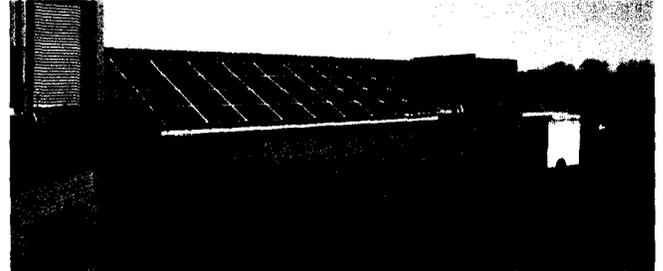
Why Ross Solar Group?

1. RSG is a LOCAL installer with experience and installations throughout the region.
2. We have designed and installed PV systems both large and small for residential, commercial and municipal applications. CT municipalities who have trusted Ross Solar Group for their PV projects include, but are not limited to:

Stamford Environmental School



Westport Staples High School



Weston Board of Education



3. We are driven by quality and preserve the PV industry's best interests as well as the needs of our customers. RSG will pour all of our resources into providing the Town of Bethel with the same service our previous customers have enjoyed.
4. Ross Solar Group uses non-penetrating racking solutions to protect your roof's warranty. Should penetrations or modifications to the roof be required, we work with approved roofing contractors to protect the warranty.
5. PV Systems from Ross Solar Group are turn-key and we provide a 5-year workmanship warranty on top of the manufacturer's system warranty. You can always count on us for Technical Support.

CT ELECTRICAL SERVICES

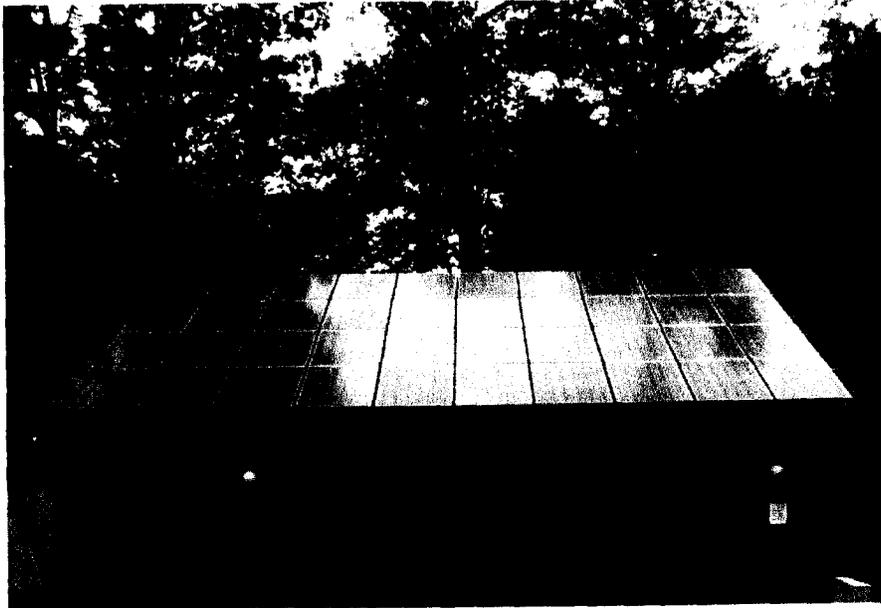
16 Pamanata Meadows - Beacon Falls, CT 06403

www.ctelectrical.com - (203) 732-9052

License #: ELC 00123626E-1

About CT Electrical Services

Established in 1994, CT Electrical Services is located in Beacon Falls, CT. We are fully licensed and insured electrical contractors that take pride in serving all of our customers' residential and commercial electrical and energy efficiency needs. As an approved installer through the Connecticut Clean Energy Fund (CCEF), we also provide Solar PV solutions for homes and businesses of all sizes. Our goal is to provide responsible, skilled and courteous electrical service, on time, and for a fair price. We keep informed of the latest developments in our industry to ensure our customers have the tools to make informed decisions. Our clients are our first priority....check out our A+ rating with the BBB!



Solar PV

Solar Energy is today's energy!! During the day, solar panels are generating power that you use in your home exactly how you would use power from your Utility Company and through net metering any excess electricity you produce is sent back to the Utility Company for you to use later on. Solar PV will help you hedge against utility rate hikes, which are all but guaranteed. The best part is, there are various State and Federal incentives whether you buy or lease a system which means you could be generating free solar power for your home before you know it!

Call us, email us or visit us on the web to get more information before these fantastic rebate programs expire!!!