Working With Your Utility

February 8th, 2012

WWW.ICLEIUSA.ORG

ICLEI's Mission

Our mission is to build, serve, and drive a movement of local governments to advance deep ***reductions in greenhouse gas emissions*** and achieve tangible ***improvements in local sustainability***.

SunShot Solar Outreach Partnership

In 2010, the International City/County Management Association (ICMA) and ICLEI-Local Governments for Sustainability were competitively selected by DOE to conduct outreach to local governments across the United States, enabling them to replicate successful solar practices and quickly expand local adoption of solar energy.

For more information visit www.solaramericacommunities.energy.gov.

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SMECO
Southern Maryland Electric Cooperative

ICLEI
Local Governments for Sustainability
USA

February 8, 2012

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Introductions

Today's Speakers

Tom Nicholas, Regional Director, Central US
SEPA

Beth Kennedy, Energy Procurement Director
Southern Maryland Electric Cooperative (SMECO)

Ron Orozco, Engineering Manager
Sulphur Springs Valley Electric Cooperative (Arizona)

About SEPA

- Formed in 1992 as the Utility Photovoltaic Group
- Educational non-profit organization
- Provides unbiased solar information, services and events with a utility focus

Online Information Resources

DOE SunShot Resource Center

- http://www4.eere.energy.gov/solar/sunshot/resource_center/

Database of State Incentives for Renewables and Efficiency (DSIRE)

- www.dsireusa.org

SEPA

- www.solarelectricpower.org

North American Board of Certified Energy Practitioners (NABCEP)

- www.nabcep.org

Don’t forget to check your local utility’s website for info!

What Makes Co-ops Different?

Rural Electric Cooperative Utilities (Co-ops)

- Non-profit, private utilities
- Typically located in rural areas, smaller customer base
- Responsive to their members' (customers') needs
  - Not those of shareholders
- Fund projects through a mix of public and private financing
  - In the early days, all co-ops received public financing, but this has evolved over the years
  - Co-ops vary greatly amongst themselves, every utility is unique

SMECO - Background

Southern Maryland Electric Cooperative

-Established 1937

-Distribution cooperative; no generation

-~150,000 customers; primarily residential

-Prior to 2005 had full requirements contract

-Currently use managed portfolio approach to supply load to members

-Regulated by Maryland Public Service Commission

-RUS borrower

-Retail Choice state

Southern Maryland Electric Cooperative

– RPS

- Subject to Maryland Renewable Portfolio Standard requirements
- Enacted in 2004; Effective in 2006 - Solar carve out added in 2008

Maryland RPS Requirements						
	Solar		Tier 1		Tier2	
	% of sales	ACP (MWh)	% of sales	ACP (MWh)	% of sales	ACP (MWh)
2011	0.05	$400	4.95	$40	2.50	$15
2012	0.10	$400	6.40	$40	2.50	$15
2013	0.20	$400	8.00	$40	2.50	$15
2014	0.30	$400	10.00	$40	2.50	$15
2015	0.40	$350	10.10	$40	2.50	$15
2016	0.50	$350	12.20	$40	2.50	$15
2017	0.55	$200	12.55	$40	2.50	$15
2018	0.90	$200	14.90	$40	2.50	$15
2019	1.20	$150	16.20	$40	0.00	$15
2020	1.50	$150	16.50	$40	0.00	$15
2021	1.85	$100	16.85	$40	0.00	$15
2022	2.00	$100	18.00	$40	0.00	$15
2023+	2.00	$50	18.00	$40	0.00	$15

SMECO - RPS Compliance

Southern Maryland Electric Cooperative

- 1 REC = 1 MWh renewable generation

	Projected	Solar	SREC ACP	Tier 1	Tier 1	Tier 2	Tier 2	Total	Total
	Sales (MWh)	RECs	Cost	RECs	ACP cost	RECs	ACP cost	RECs	ACP cost
2011	3,534,000	1,767	$ 706,800	174,933	$ 6,997,320	88,350	$ 1,325,250	265,050	**$ 9,029,370**
2012	3,567,000	3,567	$ 1,426,800	228,288	$ 9,131,520	89,175	$ 1,337,625	321,030	**$ 11,895,945**
2013	3,631,000	7,262	$ 2,904,800	290,480	$ 11,619,200	90,775	$ 1,361,625	388,517	**$ 15,885,625**
2014	3,693,000	11,079	$ 4,431,600	369,300	$ 14,772,000	92,325	$ 1,384,875	472,704	**$ 20,588,475**
2015	3,755,000	15,020	$ 5,257,000	379,255	$ 15,170,200	93,875	$ 1,408,125	488,150	**$ 21,835,325**
2016	3,818,000	19,090	$ 6,681,500	465,796	$ 18,631,840	95,450	$ 1,431,750	580,336	**$ 26,745,090**
2017	3,877,000	21,324	$ 4,264,700	486,564	$ 19,462,540	96,925	$ 1,453,875	604,812	**$ 25,181,115**
2018	3,937,000	35,433	$ 7,086,600	586,613	$ 23,464,520	98,425	$ 1,476,375	720,471	**$ 32,027,495**
2019	3,992,000	47,904	$ 7,185,600	646,704	$ 25,868,160	-	$ -	694,608	**$ 33,053,760**
2020	4,045,000	60,675	$ 9,101,250	667,425	$ 26,697,000	-	$ -	728,100	**$ 35,798,250**
2021	4,098,000	75,813	$ 7,581,300	690,513	$ 27,620,520	-	$ -	766,326	**$ 35,201,820**
2022	4,147,000	82,940	$ 8,294,000	746,460	$ 29,858,400	-	$ -	829,400	**$ 38,152,400**

SMECO
Southern Maryland Electric Cooperative

– SREC Issues

- 2010 was first year SMECO was able to fulfill solar obligation with SRECs (as opposed to paying the ACP)

- Met with many developers/financers, but typically cost for contracting SRECs was as high or higher than market

- If energy was included, energy price was also significantly above market

- 15 year contract required if purchasing directly from on – site generator (currently proposed legislation could repeal)

– SREC Issues

-Maryland eligible Solar Renewable Energy Credits (SRECs) currently available in market ~$225; approximately 55% of the Alternative Compliance Penalty (currently $400)

- Prior years SREC prices ranged between 75 – 90% of the ACP

- Uncertainty in markets; increasing requirements will likely lead to shortages in future years

- Beginning 2012, requirement that SRECs be generated within the state to be eligible for RPS compliance

– Project Sunburst

-St. Mary's County school project

-part of Maryland Energy Administration Project Sunburst Grant project

-school contracted with developer for installation of 503 kW system on George Washington Carve Elementary School; ~677,000 kWh first year, 80% of school's need

-SMECO contracted with developer to purchase SRECs generated by project, allowing for a reduced PPA energy price for the school (10 year contract)

Project Ownership

- Analysis showed that project ownership was the most cost effective way for SMECO to meet its solar compliance
  - Low cost of project financing through RUS loan
  - 1603 Grant program under ARRA would reimburse for 30% of qualifying costs

- Issued RFP for solar project through National Renewable Cooperative Organization in February 2011

- Received proposals from 18 developers for 28 projects

– Project Ownership

- Several developers worked with local county governments to find suitable project sites
- SMECO owned property in Charles County was selected as best location
- Met with county officials prior to award of contract
  - Site would need special exception (zoned agricultural conservation) – recv'd Jan 10th
  - Expedited permitting

– Local Support

- Received letters of support from Hughesville Business and Civic Alliance. county commissioners, and county's state delegation 
- Monthly meetings with Charles County Department of Planning & Growth Management, the project civil engineer, and SMECO engineering staff 
- RUS staff also very supportive

SMECO Solar LLC

-Creation of taxable subsidiary entity to take advantage of 1603 grant funding : SMECO Solar LLC

-Required approval by Public Service Commission

- PPA between SMECO and SMECO Solar LLC

- Location allows for use of a portion of energy by new SMECO Engineering and Operations Center (under construction)
  - Use of 10% of energy production at building site required for CPCN exemption

SMECO Solar LLC

- Contracted with SunEdison for 5.5 MW project on ~47 acres
- Projected energy generation of 8,700 MWhs first year of operation
- Will fulfill SMECO's SREC obligation for about 2 years (2013 & 2014)
- Expected project life of 25 years
- May consider other projects in the future if this one proves successful

SMECO
Southern Maryland Electric Cooperative

– Washington Post Article

http://www.washingtonpost.com/local/smeco-solar-farm-plan-gains-strength/2012/01/23/gIQA15yXhQ_story.html

Sulphur Springs Valley Electric Cooperative, Inc.

A Touchstone Energy® Cooperative

- Rural electric cooperative in Southeast Arizona
- 50,000 customers
- mostly rural area
- largest town 45,000 population

www.ssvec.org

SSVEC's Regulatory Environment

- No mandated Renewable Portfolio Standard (RPS)
- Renewable Energy Standard and Tariff (REST) program
- Self-Developed and Commission Approved Renewables Program menu of programs:
  - rebate program
  - Loan program
  - Performance Based Incentive program
  - Net metering
  - Cooperative owned systems

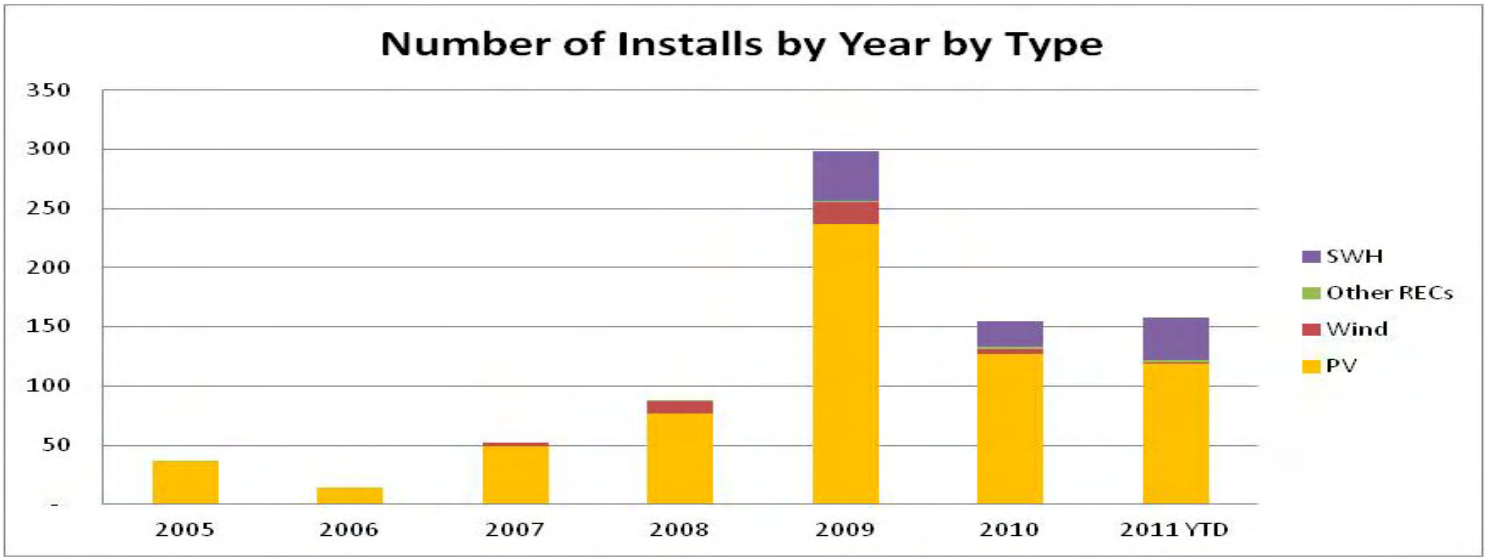
REST Program Funding

- Residential surcharge - $.00988/kWh with $3.49/month cap
- Commercial surcharge – slightly more
- Annual collection – approx. $3.4 million

SUN Watts

Rebate Program for Systems <10kW and/or <$75,000

- 2009 - $4.00/Watt up to 50% of system cost
- 2010 - $3.00/Watt up to 50% of system cost
- 2011-12 - $2.00/Watt up to 40%
- Net metered @ avoided cost of $0.0367/kWh plus $2.70/month charge



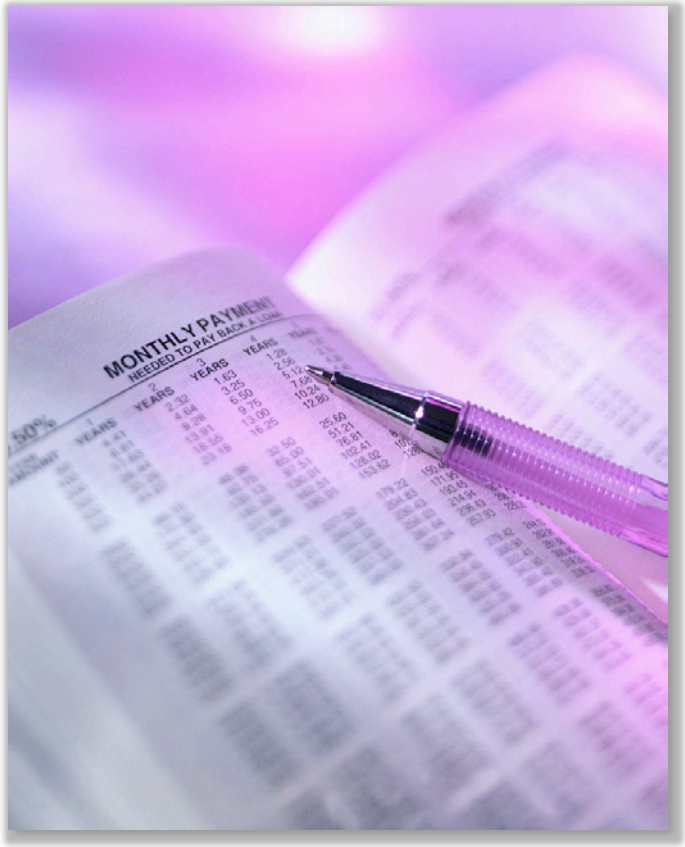
Performance Based Incentive Program

- In lieu of rebate
- Member pays full cost of system installation
- Then receives a credit on monthly electric bills based on energy generated up to 50% of cost of the system
- Repayment is significantly greater than the standard net meter rate of $0.0367/kWh
- Member chooses repayment plan:

Term	$ per metered kWh
10 years	$ 0.182
15 years	$ 0.168
20 years	$ 0.162

Loan Program

- $2.00/Watt
- up to 25% of system cost
- capped at:
  - Residential $8,000 maximum
  - Small Commercial $20,000
- 3% interest
- 5-10 year term
- Net metered



Solar Water Heating Rebate Program

- $.70 per kWh saved over traditional water heating
- Surprisingly easy to calculate
- Qualified heating systems only (OG-300 standard)

Clean Renewable Energy Bonds (CREB) Program (www.crebs.org)

Long-term (>15 years) low interest (<1%) loan for renewables

Utility must own the system

- Solar Schools Project
  - $1m loan
  - 41 schools
  - 20kW system at each school
  - 820kW total installed
- Grid-Connected systems
  - $6M loan
  - RFP issued for: 1-1.5 MW grid intertie system and a 250kW intertie at two different substations

Program Achievements Date

- 650 individual systems installed
- 3,500,000 Watts installed (mostly solar)
- We are on-track with our proposed REST goals and are very happy with results of the program.

SSVEC Earns Top Honor From Solar Association

"I'd like to personally congratulate Sulphur Springs Valley Electric Cooperative for earning a place in the 2009 top 10. The commitment of leaders like CEO Creden Huber is essential to the utility industry's transition to a future that includes solar power as an important part of the solution to the nation's energy issues."
—Julia Hamm SEPA President and CEO

"…the cooperative looks to renewable energy options to help meet the increasing demand for electricity here in Southeast Arizona."
Creden Huber SSVEC CEO

What's Ahead for REST Program?

- Commission lowered 2012 incentive levels to less than $1.00 per watt for other utilities in Arizona
- SSVEC incentive for 2013? $1.00 to $1.50 (estimated)
- No intent to change surcharge levels in near future

Discussion Topics

1. How do cooperatives view solar?
2. How best to work with your electric cooperative or other utility?
3. How to leverage electric utility expertise?

How do Cooperatives View Solar?

Optimistic Trepidation!

- Our main focus is keeping the lights on and our employees and the public safe
- A secondary focus is keeping rates as low as possible
- That keeps us very busy
- Some utilities struggle with the rate impact of higher-cost green energy today for a more diverse energy supply tomorrow.
- But we know it must be done and we are willing to participate!

How Best to Work With Your Cooperative or Other Electric Utility?

- Do your homework first
- Engage the Co-op early in your program definition
- Appreciate their position
- Be their friend – not their enemy
- Be flexible

How To Leverage Utility Expertize?

- Seek win-win opportunities
- Bring project funding
- Include funding for required engineering studies

Summary and Questions

Thank You!