State Leadership in Clean Energy

2009 AWARDS

Clean Energy States Alliance (CESA) established the *State Leadership in Clean Energy Awards* to recognize state programs that are most effectively accelerating adoption of clean energy technologies and advancing clean energy markets.

In recent years, much of the most innovative and effective activity to advance clean energy has taken place at the state level. By implementing creative finance, policy, and market initiatives, the states have been serving as laboratories where ideas for implementing clean energy can be tested and proven in the real world. In many cases, the states have established special funds to promote renewable energy and other clean energy technologies.

During the fall of 2008, state funds and agencies from across the country nominated programs for *State Leadership in Clean Energy Awards*. A team of seven distinguished judges then selected five programs from among all the award nominations. The winning entries exemplify the ground-breaking work being done by the states. The awards were given out at the National Press Club on January 13, 2009.

Clean Energy States Alliance is proud to announce the following five winners of the 2009 State Leadership in Clean Energy Awards.

The ***Connecticut Clean Energy Communities Program*** uses creative marketing, multi-sector collaboration and grassroots action to build a large voluntary market for clean energy in Connecticut. The program rewards communities with solar photovoltaic systems when (1) a town commits to obtain 20% of its electricity from clean energy sources by 2010, (2) its citizens sign up for clean energy through the CTCleanEnergyOptions program, and (3) a town purchases clean energy. Because of the program, 87 towns have committed to obtain 20% clean electricity by 2010 and more than 18,000 electricity customers have voluntarily chosen to pay a premium on their electricity bills for clean electricity. The program was developed and funded by the Connecticut Clean Energy Fund.

In Massachusetts, the ***Solar Energy for Green Affordable Housing*** is an affordable housing program that brings the environmental and economic benefits of renewable energy to low and moderate-income residents of Massachusetts. The Massachusetts Renewable Energy Trust has worked with and provided grant funding to leading affordable housing developers and financiers to help them pioneer third-party ownership of solar energy systems. The program is attracting significant interest from other affordable housing developers, owners, and public agencies in the state.

New Jersey's ***Solar Renewable Energy Certificate (SREC) Program*** is an innovative way to help the state meet its significant long-term commitment to solar energy. The NJ Board of Public Utilities (BPU) first instituted SRECs in 2004. Three years later, the BPU established an SREC-Only Pilot Program as an efficient, market-based financing approach to provide solar developers and building owners with financial incentives to install solar electricity systems. The program has 39 megawatts of solar capacity in the pipeline, demonstrating the effectiveness of this approach and helping to make New Jersey a national leader in solar electricity. The New Jersey Board of Public Utilities, through its Office of Clean Energy, created and administers the program.

The California Energy Commission initiated and funded the ***Western Renewable Energy Generation Information System*** (WREGIS) as essential infrastructure for a working market for renewably generated electricity. WREGIS serves as essential infrastructure for a working market for renewable energy generation. It tracks renewable energy credits from participating facilities over a large region that includes all or part of 14 states and three Canadian and Mexican provinces. It is the only system that spans the territories of multiple authorities that manage the transmission system and the electricity market. WREGIS was created through a partnership among the California Energy Commission, the Western Governors' Association, the Western

Regional Air Partnership, and WECC. California Energy Commission benefited that entire region by initiating and providing the early funding for the launch and operation of the tracking system.

Because of the ***Wisconsin Biogas Digestion Program,*** implemented by Focus on Energy**,** Wisconsin leads the nation in the number of farm-based anaerobic biogas digesters producing electricity, heat, and pipeline-quality gas. Biogas digester systems enable farmers to produce distributed energy for a reasonable return on investment while controlling dairy manure odors, pathogens, and flies. The Wisconsin program provides information, education, technical assistance, and financing to promote digester installations. Focus on Energy encouraged biogas information exchange among the various stakeholders and developed a carefully crafted measurement and verification program. Technologies developed in Wisconsin have been used in Indiana and Vermont.

Judges

The judges for the *State Leadership in Clean Energy Awards* represented federal agencies, national associations, and other organizations important to the implementation of clean energy. CESA would like to express its sincere thanks to these judges for their time and careful consideration of all the nominated CESA-member programs.

Glen Andersen is an energy policy specialist at the National Conference of State Legislature's Energy Project. He conducts legislative outreach on issues such as climate change, energy efficiency, and renewable energy. He has worked for over eight years assisting state legislators in their efforts to address energy and environmental concerns, providing them with policy information and analysis, and facilitating communication between legislators, regulators, industry, and advocates.

Hans Detweiler is Manager of State Legislation and Policy for the American Wind Energy Association. He previously was Deputy Director of the Illinois Department of Commerce and Economic Opportunity, administering the state's renewable power, renewable fuels, and energy efficiency programs. Earlier, he was a Policy Advocate at the Environmental Law & Policy Center, focusing on renewable energy and energy efficiency, and he also worked with organized labor and other nonprofits.

Michael Northrop has played a leading role in encouraging the philanthropic community to address global warming. He directs the sustainable development grantmaking program at the Rockefeller Brothers Fund in New York City, where he focuses on climate change. He is also a Lecturer at Yale University's Forestry and Environmental Studies School and at Princeton's Woodrow Wilson School, where he teaches graduate courses on environmental campaigns.

Rhone Resch is President of the Solar Energy Industries Association, the industry's voice and lobbying advocate for expanding the US market. He is on the Business Council for Sustainable Energy board and the Global PV Solar Energy Council, and also chairs the Western Governors Association Solar Energy Task Force. He previously worked for the Natural Gas Supply Association and EPA's Climate Protection Division.

Julie Rosenberg is Branch Chief for EPA's State and Local Clean Energy-Environment Programs in the Climate Protection Partnerships Division within the Office of Air and Radiation. Her programs provide state and local governments with policy guidance, technical and analytical support, and peer exchange opportunities that link energy and air quality policies and programs to voluntary greenhouse gas reductions and other benefits. She has been with EPA for over 20 years.

Gil Sperling is Program Manager for the Weatherization and Intergovernmental Program of the Office of Energy Efficiency and Renewable Energy at the US Department of Energy. He previously served as Executive Vice President of Verdant Power, which develops projects that generate electricity from water currents of rivers, tides, and man made waterways, and as Vice President and General Counsel of the Pipeline Research Council International. Earlier, he practiced energy-related law.

Ryan Wiser is a staff scientist at Lawrence Berkeley National Laboratory. He leads research in the planning, design, and evaluation of renewable energy policies, and on the costs, benefits, and market potential of renewable electricity sources. He is a well-known expert on both system-benefits charge and renewables portfolio standard policies, and he regularly advises and consults with state and federal agencies in the design and evaluation of renewable energy policies.

More information about Clean Energy States Alliance and this year's award winners can be found at www.cleanenergystates.org.

CleanEnergy States Alliance

— 2009 AWARD WINNER —
State Leadership in Clean Energy

Program Highlights

- More than half of Connecticut's cities and towns have committed to purchasing 20% clean energy by 2010.
- In participating communities, 4% of households are voluntarily paying a premium to support clean energy.
- As part of the program, the Connecticut Clean Energy Fund has awarded 180 solar photovoltaic systems for installation on public buildings.
- Mayors and other local officials have become highly visible, vocal supporters of clean energy.

CONNECTICUT CLEAN ENERGY FUND

Town leaders in Essex, Connecticut commemorated the installation of a two-kilowatt solar array at the Essex Recycling Center.

Connecticut Clean Energy Fund

CONNECTICUT CLEAN ENERGY COMMUNITIES PROGRAM

The Connecticut Clean Energy Communities Program, developed and funded by the Connecticut Clean Energy Fund, has used creative marketing and multi-sector collaboration to build a large voluntary market for clean energy in Connecticut. The program rewards communities with solar photovoltaic systems when (1) a town commits to obtain 20% of its electricity from clean energy sources by 2010, (2) its citizens sign up for clean energy through the CTCleanEnergyOptions program, and (3) a town purchases clean energy. Because of the program, 87 towns have committed to obtain 20% clean electricity by 2010 and more than 18,000 electricity customers have voluntarily chosen to pay a premium on their electricity bills for clean electricity. The voluntary demand for electricity from clean energy sources represents over 1% of total electricity demand in Connecticut.

The Program's Approach

The Connecticut Clean Energy Communities Program was designed in 2005 to increase the public's knowledge of clean energy and to get consumers to adopt clean energy technologies for their homes, businesses, and institutions. The program is accomplishing these things through a five-step process:

1. Establish an ambitious target for Connecticut communities (20% clean energy by 2010)
2. Identify a voluntary action for consumers to take (sign-up to purchase green electricity through CTCleanEnergyOptions).
3. Implement a widespread messaging campaign, based on the concept "Clean Energy—It's Real, It's Here, It's Working—Let's Make More".
4. Encourage and recognize voluntary action by rewarding participating communities with visible solar photovoltaic systems on public buildings.
5. Use an independent monitoring and evaluation contractor to track voluntary actions and progress towards goals.

Common Ground High School in New Haven celebrated the installation of a solar system earned through the Connecticut Clean Energy Communities Program.

The Results

The program has significantly exceeded the main targets that the Connecticut Clean Energy Fund initially set for it. More than half of the state's 169 cities and towns are participating in the program. The program's innovative marketing approach and the opportunity for citizens to help their community receive a free solar system by choosing to financially support clean energy has produced a strong public response. In participating communities, 4.0% of households are voluntarily purchasing green electricity versus only 1.5% market penetration in the rest of the state.

For every 100 sign-ups to CTCleanEnergyOptions or 1,000 megawatt-hours of green electricity purchased, a participating community receives a one kilowatt photovoltaic system. The Connecticut Clean Energy Fund has awarded 180 photovoltaic systems to communities, with many of the 87 participating communities having achieved sufficient participation to qualify for more than one system. Through the end of 2007, the program had cost the Fund nearly $2 million but it had stimulated over $3 million a year of voluntary consumer investment in clean energy supply.

Indirect Impacts

The many news articles about the Connecticut Clean Energy Communities Program and extensive grassroots efforts to promote it have significantly increased public awareness of clean energy in Connecticut and have demonstrated the importance of clean energy as a solution to climate change. Mayors, town managers, and other local officials have not only appreciated the opportunity to earn solar photovoltaic systems for their communities but they have become more knowledgeable and more vocal supporters of clean energy. Citizens have formed voluntary clean energy task forces to conduct local clean energy campaigns and support the towns' efforts to advance clean energy and other sustainability initiatives.

The program has also significantly increasing public awareness of the Connecticut Clean Energy Fund and has created a strong foundation for other programs of the Fund to build on.

Judges' Comments

The program not only educates people in a cost-effective way but it stimulates them to take action. The community-based approach makes a lot of sense and is an ideal way to achieve broad public participation in implementing clean energy. The number of mayors and communities that have carried out events or other activities as part of this program is impressive.

CONNECTICUT
CLEAN ENERGY FUND

About the Connecticut Clean Energy Fund

The Connecticut Clean Energy Fund promotes, develops, and invests in clean energy sources for the benefit of Connecticut ratepayers. It was created by the state's legislature in 2000 and is funded by a surcharge on residential and commercial electricity bills. The Fund is administered by Connecticut Innovations and is overseen by a 15-member board appointed by the Governor, legislative leaders, and other public officials. Since its inception, the Fund has provided more than $100 million in grants, project support, commitments, and program allocations.

For more information

Connecticut Clean
Energy Fund
200 Corporate Place
Third Floor
Rocky Hill, CT 06067
www.ctcleanenergy.com

Contact person

Lise Dondy
860-257-2336
lise.dondy@
ctcleanenergy.com

CleanEnergy States Alliance

— 2009 AWARD WINNER —
State Leadership in Clean Energy

Massachusetts Renewable Energy Trust

SOLAR ENERGY FOR GREEN AFFORDABLE HOUSING

Program Highlights

- Massachusetts has developed an approach that can allow solar electricity systems to be implemented widely on affordable housing.
- Third-party ownership allows nonprofit and public housing projects to benefit from federal solar tax credits.
- Nine affordable housing projects are receiving systems with a total capacity of 1.2 megawatts.
- The program has significantly increased interest in renewable energy on the part of Massachusetts affordable housing developers, owners, and regulators.

MASSACHUSETTS TECHNOLOGY COLLABORATIVE
RENEWABLE ENERGY TRUST

The Massachusetts Renewable Energy Trust has worked with and provided grant funding to leading affordable housing developers and financiers to help them pioneer third-party ownership of solar energy systems for affordable housing. Nine systems with a total capacity of 1.2 megawatts are being installed at affordable housing projects, reducing their electricity bills. The program is attracting significant interest from other affordable housing developers, owners, and public agencies in the state. Along with Commonwealth Solar —a new state rebate program that doubled the installed megawatts of solar power in Massachusetts in its first year—the green affordable housing initiative is part of an ambitious and comprehensive effort to expand the use of renewable energy across the Commonwealth

Rationale for Focusing on Solar for Affordable Housing

It is important for the future of solar energy to show that it can benefit low and moderate-income households, as well as wealthier ones that can afford the high initial cost of an installation. Moreover, because the majority of new rental properties being developed in Massachusetts are part of affordable housing projects, affordable housing represents a large potential market for solar.

Unfortunately, a number of factors present challenges to implementing solar energy in affordable housing. For one thing, nonprofit and public owners of affordable housing cannot take advantage of federal solar tax credits. In addition, the financing process for affordable housing development can be so complex that even the best-intentioned developer can have difficulty figuring out how to make a large photovoltaic solar installation work financially, legally, and logistically as part of a project.

A 92-kilowatt solar system was installed at the Washington Elms affordable housing development in Cambridge. It will provide approximately 30% of the 145-unit facility's electricity.

The 337 resident-owned Mishawum Park Apartments in Charlestown are receiving a 392-kilowatt solar system that will meet 15% of the facility's electricity needs.

The Massachusetts Model

The Massachusetts Renewable Energy Trust's green affordable housing program is pioneering a solar development model that addresses these problems in a way that can be widely replicated. To allow projects to qualify for federal solar tax credits and to avoid overcomplicating the already complex financial transactions involved in affordable housing development, the model relies on third parties to own and install the systems. Then, by aggregating multiple projects into a single package, it is possible to include projects that would normally fall below the size threshold for cost-effective third-party ownership (typically at least 100 kilowatts per project). Although third-party ownership of solar systems is not unique, a focus on affordable housing is.

Implementing the Model

The Trust gave major grants to key players in the Massachusetts affordable housing community to help them implement both renewable energy and energy efficiency. Two of those parties—Boston Community Capital (BCC) and Winn Development (Winn)—worked with the Trust to develop and implement third-party ownership for solar.

BCC is a nonprofit community development financial intermediary that invests in affordable housing. The Trust provided BCC with a $5 million grant to create a third-party solar ownership model. After researching options available through installers and national third-party renewable investors, BCC decided it would be better to create its own entity, which was a massive legal and technical undertaking. That entity, BCC Solar Energy Advantage, combines equity from an outside investor with the grant funding from the Trust. The owners of the affordable housing projects then enter into power purchase agreements that guarantee them a set rate for the purchase of the solar power for 20 years. BCC Solar Energy Advantage is currently installing systems ranging from 39 kilowatts to 392 kilowatts at 7 Massachusetts projects. The total capacity is one megawatt.

Winn is a for-profit developer, owner, and manager of various building types, including affordable housing. Winn took its cue from BCC and adopted its approach by creating WinnSolar, a subsidiary solely dedicated to third-party ownership of solar. WinnSolar combined $1 million in grant funding from the Trust with other private capital through WinnDevelopment to install systems on two Massachusetts housing projects that are also being renovated and modernized using highly energy-efficient and green techniques. The systems have a capacity of 205 kilowatts.

Judges' Comments

The Massachusetts program is an early leader in committing resources to integrate green design and solar energy into affordable multi-family housing. The program recognizes that low-income citizens can benefit from solar power's ability to stabilize monthly electricity costs. The third-party ownership model overcomes barriers to reaching this sector of the housing market.

MASSACHUSETTS TECHNOLOGY COLLABORATIVE
RENEWABLE ENERGY TRUST

About the Massachusetts Renewable Energy Trust

The Massachusetts Renewable Energy Trust seeks to maximize environmental and economic benefits for the Commonwealth's citizens by pioneering and promoting clean energy technologies and fostering the emergence of sustainable markets for electricity generated from renewable sources. It was established by the Massachusetts legislature in 1998 and is funded by a system benefit charge on ratepayers' electricity bills. In the current fiscal year, the Trust will make more than $40 million in awards to municipalities, businesses, homeowners, and project developers.

For more information

Massachusetts Renewable Energy Trust
75 North Drive
Westborough, MA 01581
www.masstech.org

Contact person

Chris Kealey
508-870-0312
kealey@masstech.org

New Jersey Board of Public Utilities Office of Clean Energy

SOLAR RENEWABLE ENERGY CERTIFICATE PROGRAM

Program Highlights

- New Jersey is the first state to establish an SREC trading program and platform
- New Jersey's SREC Program is the first state solar program to transition away from reliance on rebates.
- Seven megawatts have been intalled and 39 megawatts of solar capacity are to be completed under this program by the end of 2009.
- The SREC Program is an efficient, market-based financing approach.

New Jersey has made a significant long-term commitment to solar energy and the Solar Renewable Energy Certificate (SREC) Program is an innovative way to help the state meet that commitment. The Board of Public Utilities (BPU) first instituted SRECs in 2004. Three years later, after successfully developing a market for SRECs, the BPU established an SREC-Only Pilot Program as an efficient, more market-based approach to providing solar developers and building owners with financial incentives to install solar electricity systems without reliance on rebates. The program has 39 MW of solar capacity in the pipeline, and 7 MW installed, demonstrating the effectiveness of this approach. This pioneering program followed an in-depth stakeholder process ensuring market acceptance and broad public benefit.

Origins of the SREC Program

Unlike most other renewable portfolio standards (RPS), the one in New Jersey specifies that a certain share of electricity must come specifically from solar-powered generation. This solar set-aside was established in 2003 because New Jersey wanted to grow a local solar industry and be a national leader in implementing solar, and the state recognized that solar systems are currently more expensive per installed kilowatt than some other clean energy technologies. The state's RPS requires that 2.12% of the state's electricity come from solar by 2021.

New Jersey BPU established the SREC to facilitate compliance with the RPS's solar set-aside and to help provide financial assistance for the installation of solar systems. In 2004, the BPU established an SREC trading platform to facilitate SREC trading between solar generators and electricity suppliers and demonstrate retirement of SRECs toward RPS compliance. Along with state rebates, federal tax credits, and net metering, the SREC helped spur the growth of New Jersey's solar market. The total installed capacity at the end of 2008 exceeded 65 MW.

The BPU then began to look for a more efficient, more sustainable method than a conventional rebate program to incentivize electricity customers to install solar systems. After an

The Atlantic City Convention Center is one of the largest roof-mounted solar PV systems in North America, rated at 2.36MW of dc capacity. Higher valued SRECs enable profitable investments in solar without large rebates.

Ortho McNeil Pharmaceutical, a Johnson & Johnson company, installed a 510-kilowatt solar electric system at its campus in Raritan. The installation produces enough electricity to power about 45 average homes.

extensive stakeholder process and considerable analysis, in December 2007 the BPU established the SREC-Only Pilot Program. Rebates were continued for installations smaller than 50 kW through 2012, at which time the need for continued rebates will be evaluated.

How the SREC Program Works

SRECs represent the renewable attributes (clean energy benefits) of power generated from a solar electric system, and they can be bought or sold separately from the electricity, thus providing the system owner with a source of revenue to help offset the cost of the system. An SREC is issued to a solar facility for each megawatt hour of solar energy it generates. Each facility qualifies for SRECs for 15 years.

Solar electricity system owners can choose to sell their SRECs to a broker or directly to an electricity supplier that must buy SRECs to comply with the state RPS. Some solar installers or project developers offer to buy the SRECs as part of the project financing, thereby reducing the amount of capital needed up front by the system owner to finance a project.

The market determines the SREC value with the supply of SRECs being provided by installed capacity and with demand set by the current required RPS percentage. The price is effectively capped by the level established by the BPU for Solar Alternative Compliance Payments (SACP) in a particular year. The SACP enables electricity suppliers to comply with the RPS even when there is an insufficient supply of SRECs.

The BPU has set the SACP level at $711 per MW-hour for 2009 and established a schedule of 3% annual decline in the SACP level for eight years. Each year, the BPU will set the level for a "new" eighth SACP amount. SREC's high potential value makes it unnecessary for the BPU to offer upfront rebates to every customer wishing to install a solar system.

Advantages of the SREC Program

By avoiding upfront rebates and instead spreading out the public subsidy of solar systems over time, the SREC Program lowers the annual financial impact on ratepayers of installing large quantities of solar electricity. And as the cost of solar technologies declines, the workings of the marketplace will ensure that SREC values (and public subsidies) will also decline. A structure that allows incentive levels to adjust quickly to changes in the market helps to ensure that the cost of the incentive is close to the minimum needed.

Potential for Other States

New Jersey's SREC-Only Pilot Program is the nation's first program to switch from rebates to a market-based system relying on SRECs. Other states, including Maryland, Pennsylvania, and Delaware, are closely monitoring the SREC-Only Pilot Program.

Judges' Comments

New Jersey is successfully building a large-scale market for solar energy and the SREC Program is an important component of that effort. Considerable analysis and stakeholder input went into developing the innovative program.

New Jersey Clean Energy PROGRAM

About New Jersey's Clean Energy Program

The New Jersey Clean Energy Program promotes increased energy efficiency, supports installation of renewable energy sources, provides information to help reduce energy use, endorses climate change solutions, and offers financial incentives, programs, and services for electricity customers to save energy, money, and the environment. The program is administered by the New Jersey Board of Public Utilities (BPU).

For more information

New Jersey BPU
Office of Clean Energy
44 South Clinton Avenue
PO Box 350431
Trenton, NJ 08625
www.NJCleanEnergy.com

Contact person

Michael Winka
609-777-3300
michael.winka@
bpu.state.nj.us

CleanEnergy States Alliance

2009 AWARD WINNER
State Leadership in Clean Energy

California Energy Commission

WESTERN RENEWABLE ENERGY GENERATION INFORMATION SYSTEM

The California Energy Commission initiated and funded the Western Renewable Energy Generation Information System (WREGIS) as essential infrastructure for a working market for renewably generated electricity. WREGIS tracks renewable energy generation from participating facilities in the Western Electricity Coordinating Council (WECC) region and creates renewable energy certificates (RECs) for that generation. The RECs are ultimately permanently retired in the system to demonstrate compliance with a participating voluntary or regulatory renewable energy program. The system protects the credibility of the renewable energy market and prevents multiple counting of renewable energy generation.

Program Highlights

- WREGIS is the largest renewable energy certificate (REC) tracking system in North America, allowing for the trading of RECs throughout much of the western part of the continent.
- This region-wide system uses independent, verifiable generation data to track RECs and ensure that renewable energy generation is not double counted.
- The California Energy Commission provided $6.6 million to launch WREGIS and begin operating it.

The Benefits of a REC Tracking System

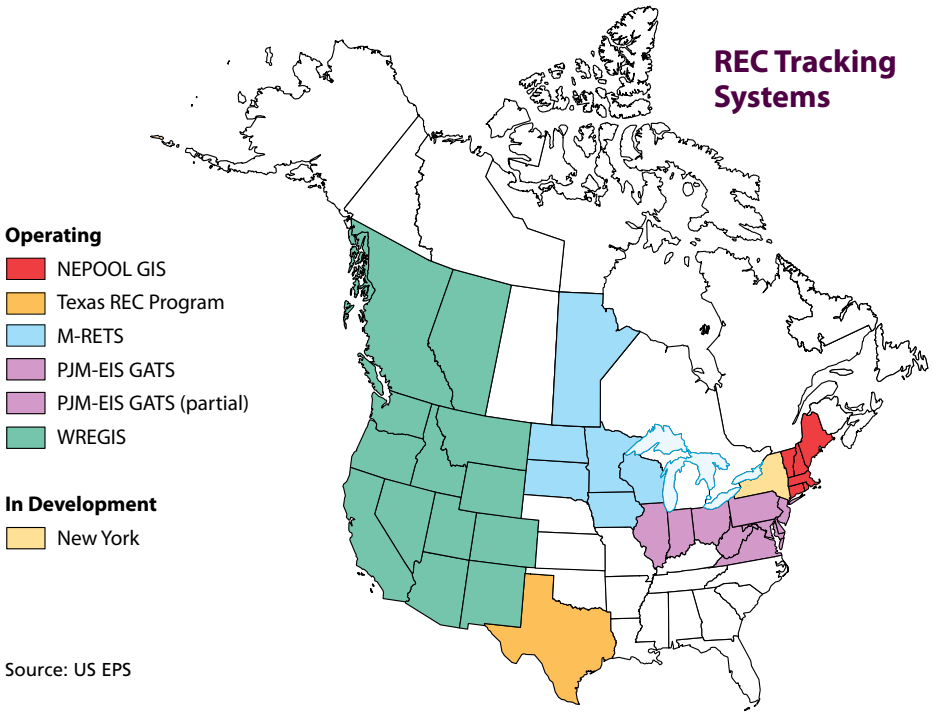
Large-scale development of renewable energy projects requires a functioning, credible mechanism for tracking and selling the electricity from those projects. WREGIS was launched in June 2007 to provide such a mechanism over a large geographic area. The WECC region covers all or part of fourteen states plus two Canadian provinces and northern Baja, Mexico.

Because of WREGIS, those who wish to buy or sell renewable energy certificates (RECs) can have confidence that the RECs will be tracked accurately and that the electricity will be counted once and only once. WREGIS uses independent, verifiable generation data to track RECs that are assigned unique serial numbers. By ensuring the credibility of the renewable market, WREGIS fosters private and public investments in clean energy; allows state compliance programs, such as the California Renewables Portfolio Standard (RPS) and the renewables portfolio standards of other states and provinces, to work as intended; and encourages participation in the voluntary market for renewable energy.

A System at a Large Scale

WREGIS was created through a partnership among the California Energy Commission, the Western Governors' Association, the Western Regional Air Partnership, and WECC, with WECC serving as the administrative home of WREGIS. The California Energy Commission provided $6.5 million for the system's design, development, and initial operating and maintenance costs.

WREGIS staff, from left: Andrea Coon (Administrator), Connie White (Director), Stephanie Roghaar (Administrative Assistant), Mary Frantz (Program Analyst)



Although other parts of the country had clean energy tracking systems before WREGIS, WREGIS includes more states, plus provinces, and is the only system that spans the territories of multiple authorities that manage the transmission system and the electricity market. WREGIS serves a large number of participating programs with diverse needs. It tracks requirements and eligibility for nine state and provincial RPS programs and two voluntary programs. The system fosters economies of scale and ultimately reduces the cost of complying with a regulatory or voluntary system in the region served by WREGIS.

Because of the large area and number of programs covered by WREGIS, the partner organizations carried out a vast effort to involve stakeholders and solicit input regarding WREGIS structure, content, and services. They surveyed over 400 industry, regulatory, and other stakeholders to determine which features were desirable in a clean energy tracking system.

WREGIS was designed to be able to export RECs to other tracking systems, and the California Energy Commission staff is monitoring how WREGIS could contribute to efforts to promote harmonization among the various REC tracking systems in North America.

A Forum for Stakeholders

Every month, at least four meetings are held so that stakeholders can discuss matters of policy, as well as system and programmatic changes. WREGIS participants have also formed working groups to solve particular issues requiring more time and subject matter expertise. To help the public and policymakers keep abreast of developments and trends in the western REC market, WREGIS provides public reports on REC activity within the system.

Since WREGIS launched on June 25, 2007, 203 account holders and 802 clean energy generators have registered and been approved in WREGIS. Those generators represent over 12,400 megawatts of installed capacity.

Judges' Comments

The California Energy Commission deserves a lot of credit for getting this large undertaking off the ground and funding it. It required an incredible amount of coordination over a large geographic area. The Commission wisely involved the many relevant stakeholders. WREGIS helps move the country towards a national renewable energy tracking system.

About the California Energy Commission

The Commission has been California's primary energy policy and planning agency since 1974. Since electric industry deregulation in 1998, the Commission has overseen funding programs that support public interest energy research; advance energy science and technology through research, development, and demonstration; and provide market support to existing, new, and emerging renewable technologies

For more information

California Energy Commission
1516 9th Street
Sacramento, CA 95814
www.energy.ca.gov

Contact person

Heather Raitt
916-654-4735
hraitt@energy.state.ca.us

Program Highlights

- Biogas digesters are producing valuable renewable energy, while providing financial benefits to farms and controlling farm waste odors, pathogens, and flies.
- The 11 installation sites that received funding and other help from Focus on Energy have a capacity of nearly 5 megawatts; 13 more under construction will double that capacity.
- Wisconsin leads the nation in the number of farm-based biogas digesters.
- The Program co-sponsors an annual biogas digester conference

focus on energy
The power is within you.

Focus on Energy

WISCONSIN BIOGAS DIGESTION PROGRAM

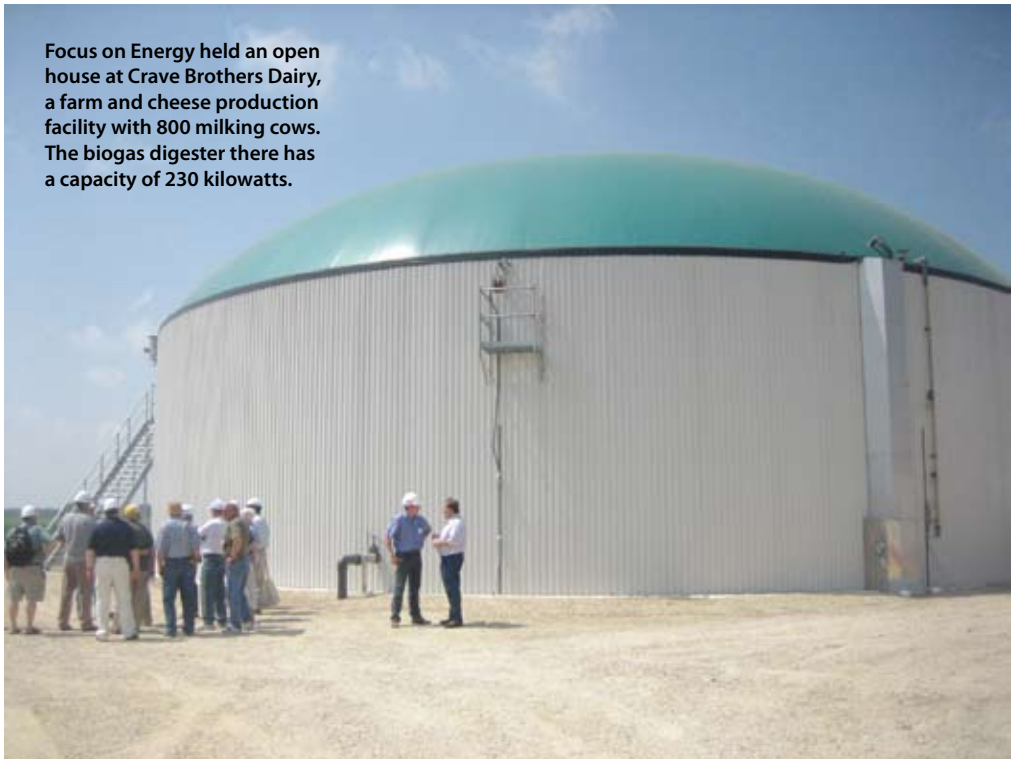
Because of Focus on Energy's biogas program, Wisconsin leads the nation in the number of farm-based anaerobic biogas digesters producing electricity, heat, and pipeline-quality gas. Biogas digester systems enable farmers to produce distributed energy for a reasonable return on investment while controlling dairy manure odors, pathogens, and flies. The Wisconsin program provides information, education, technical assistance, and financing to promote digester installations.

Why a Biogas Program

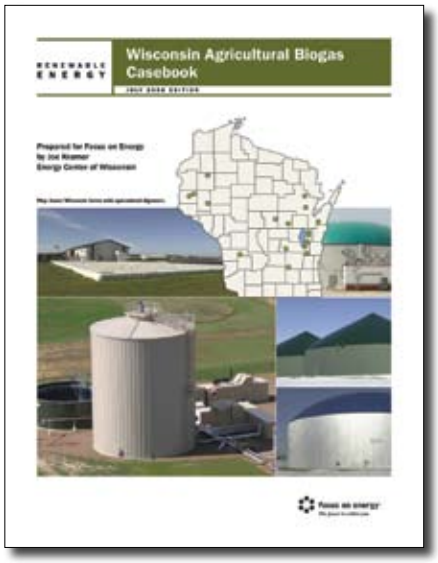
Wisconsin's large dairy and food processing industries require significant amounts of energy and generate considerable amounts of waste. To stay competitive, large farms need a cost-effective solution to the odors, pathogen presence, and intense nutrient loadings from animal manure. The Wisconsin biogas program advances renewable energy while helping farms remain profitable.

Of Wisconsin's 17 installed digester farms, 11 received funding and other services from Focus on Energy. Those 11 projects have a capacity of nearly 5 megawatts and annually produce more than 36,000 megawatt-hours of electricity. The 13 projects under construction will roughly double that capacity and electricity generation.

Focus on Energy realized early on that financial incentives alone would not lead to the installation of many biogas digesters. Instead, it was important for the various players to



Focus on Energy held an open house at Crave Brothers Dairy, a farm and cheese production facility with 800 milking cows. The biogas digester there has a capacity of 230 kilowatts.



In July 2008, Focus on Energy published case studies of 17 farm-based biogas digesters installed in Wisconsin.

become comfortable with the technology, understand the market, and collaborate on solutions. Focus therefore encouraged biogas information exchange among the various stakeholders and developed a carefully crafted measurement and verification program. The agency has co-sponsored an annual anaerobic digester biogas conference for five years. It monitors three biogas systems using a scientifically reviewed protocol developed by the US EPA to provide a standard method of evaluating digester biogas system performance. And Focus funded the Wisconsin Agricultural Biogas Casebook, which includes case studies, including farmers' experiences and performance data.

A Limited Budget Encourages Cooperation

Initially with a just a small budget for the biogas program, Focus on Energy emphasized cooperative activities with partners. Focus worked closely with the state's utilities to make it easier to interconnect biogas systems to the utility grid and to institute higher rates for electricity produced from biogas. Focus shares conference display space and conducts joint educational forums with county development organizations, watershed groups, dairy business associations, and the Wisconsin Milk Marketing Board. Focus also participates in monthly meetings of the Wisconsin Biogas Development Group, which includes farmers, government agencies, universities, supply-chain participants, researchers, and the agricultural press. Focus worked with members of the Wisconsin agriculture community to secure 32 digester grants from the US Department of Agriculture via the Section 9006 Renewable Energy/Energy Efficiency Program.

All these cooperative activities have helped the biogas program to popularize renewable energy among constituencies that may not have traditionally supported it. The biogas program has provided a "comfort zone" where farm groups, lenders, local governments, regulators, utilities, and environmental groups can meet and collaborate.

Building on Success

Based on the success of the program, Focus on Energy's biogas program budget for calendar year 2009 has grown to $2.3 million, five times greater than just three years ago. Nearly 90 percent of the money will be used for incentives. The agency has actively disseminated information about the Wisconsin biogas experience to other states. Vermont and Indiana are already employing some of the technologies that were pioneered in Wisconsin.

Judges' Comments

Focus on Energy identified an underused renewable energy resource and then designed a comprehensive, multi-faceted program to utilize that resource. This innovative program has both economic and environmental benefits. It demonstrates leadership and is influencing other states.

focus on energy℠
The power is within you.

About Focus on Energy

Focus on Energy works with Wisconsin residents and businesses to install cost-effective energy efficiency and renewable energy projects. Focus provides information, resources, and financial incentives to help implement projects that otherwise would not be completed, or to complete projects sooner than scheduled. It was established as part of a state law that requires Wisconsin's investor-owned electric and gas utilities to fund statewide energy efficiency and renewable energy programs. The utilities select a public administrator to administer those programs and the Public Service Commission oversees them. Focus on Energy is administered by the Wisconsin Energy Conservation Corporation.

For more information

Focus on Energy
431 Charmany Drive
Madison, WI 53719
www.focusonenergy.com

Contact person

Don Wichert
608-249-9322 ext. 120
donw@weccusa.org