

Clean Energy Resource Teams (CERTs)

Major accomplishments of the CERTs Partnership in 2018 include:

- Hosted 27 events with 1,948 attendees, connecting with an additional 4,018 community members through 278 meetings, presentations and other outreach activities across the state;
- Saved or offset 49.6 billion BTUs over the past year as a result of CERTs efforts; and
- Funded thirty-nine community-based clean energy seed grants projects. The savings from these projects will be reported in 2019.

Clean Energy Resource Teams (CERTs)

Prepared by Clean Energy Resources Teams partnership

Overview

The Clean Energy Resource Teams—or CERTs—is a statewide partnership¹ with a shared mission to connect individuals and their communities to the resources they need to identify and implement community-based clean energy projects. CERTs empowers communities and their members to adopt energy conservation, energy efficiency, and renewable energy technologies and practices for their homes, businesses and local institutions. CERTs works to impartially meet stakeholders where they are, convert learning into doing, and provide inclusive access to clean energy.

From seed grants to energy efficiency campaigns and educational forums, CERTs' work is place- and people-based. Overall, CERTs works with five primary audiences. Brief examples include:

- Governmental units: CERTs has engaged hundreds of government entities through GreenStep Cities, Cities Charging Ahead, Solar Possible, and outreach for the Local energy Efficiency Program.
- Utilities: This past year CERTs conducted 8 business blitzes to scale-up utilization of utility rebates and audit services.
- Small businesses: CERTs supports counties in adopting Property Assessed Clean Energy (PACE) and small businesses in utilizing PACE for efficiency projects.
- Agricultural producers: In November, CERTs hosted an efficiency and solar event for hog farmers (mncerts.org/swine) in Fairmont connecting participants with information on energy audits from Great River Energy and potential funding through PACE, tax incentives and the Rural Energy for America Program (REAP).

¹ The CERTs partnership joins the Minnesota State Energy Office, part of the Minnesota Department of Commerce, Division of Energy Resources; the University of Minnesota Extension Regional Sustainable Development Partnerships; the Southwest Regional Development Commission; and the Great Plains Institute.

- Underserved communities: CERTs coordinated an effort with North Shore Area Partners, Co-op Light and Power, and Minnesota Power to conduct LED bulb direct installs into homes of low-income and disabled elderly residents in Silver Bay.

Program Outcomes

To integrate CERTs' work around the State, CERTs aligns its programming and documents its success within three major categories: learn, connect and act. Highlights from the past year in each of these categories include:

- **Learn** describes the variety of work CERTs does to help Minnesotans understand their clean energy options, utilize decision tools to determine what action make most sense, identify project models, and see the range of projects underway around the state:
 - The MN Energy Stories newsletter is a digest for those looking for news, projects examples, and opportunities. The list grew to 14,300 subscribers this year, with 850 new people coming from the Solar Video Contest (contests.mncerts.org).
 - Solar resources and tools were the most frequently accessed, with over 27,000 views and over 15% of overall website traffic, with major use of CERTs solar (mncerts.org/solar), community solar (mncerts.org/solargardens), subscriber collaborative (mncerts.org/collaborative), SolSmart (mncerts.org/solar/solmart), Solar Possible (mncerts.org/solarpossible), and Renewable Energy for Greater Minnesota (mncerts.org/greatrenewables) pages.
 - Two other popular resources on the CERTs website this year have been the MN Clean Energy Jobs Board with over 10,000 views (mncerts.org/jobs) and a page on Property-Assessed Clean Energy, or PACE, with 2,500 views (mncerts.org/pace).
 - CERTs published 70 blog posts in the last year, with a great deal of interest shown for two series, one featuring women leading Minnesota energy industry (mncerts.org/women-in-energy) and another featuring successful CERTs Seed Grant case studies (mncerts.org/blog-series/seed-grants). Other top posts for organic search traffic include saving water and energy with faucet aerators (4,700 views), how wind energy works (1,400 views), and farmers with their own solar installations (900 views).
 - Lastly, CERTs continues to engage the public about LED lighting with the classic 2-page educational Right Light Guide, the on-line Right Light App (rightlightapp.org) that can be accessed from any device, the Right Light Guide for tube lights, and CERTs' holiday lighting resources. There were 4,700 views of these efficient lighting education and tools with 1,500 new users of the Right Light App.
- **Connect** frames the work CERTs does via events, conferences, presentations, workshops and tours to create learning and networking building opportunities that catalyze action. In 2018, CERTs hosted 27 events with 1,948 attendees. CERTs connected with an additional 4,018

community members through 278 meetings, presentations and other outreach activities across the state. Following events, summaries are posted to the CERTs Blog. A sample of 2018 events follows:

- The 7th statewide CERTs Conference was held March 28-29, 2018 in St. Cloud. The event attracted 550 attendees from a variety of sectors for an agenda focused on best practices, case studies, emerging opportunities, and intentional networking. Highlights included seven community lightning talks and breakout sessions on utility efficiency programming models, strategies for reducing low-income energy burden, energy storage, and EVs (mncerts.org/blog/looking-back-successful-2018-certs-conference).
 - The Power of Minnesota events, utilize a new documentary called *The Power of Minnesota* (powerofmn.com) —that features stories of Minnesotans across the state who are building and participating in the clean energy economy—as the catalyst for events in Canby (mncerts.org/canby), Lindstrom (mncerts.org/chisago), Bemidji (mncerts.org/bemidji), and Fargo-Moorhead (mncerts.org/f-m). These forums served as opportunities to highlight local speakers and action, for community conversations about clean energy, and to understand the associated job, economic, and community benefits.
 - An energy efficiency and energy benchmarking focused forum (mncerts.org/msusaves) highlighted Minnesota State University, Mankato’s tremendous efficiency successes and spurred discussions about how other governmental units can follow Mankato State University’s lead.
- **Act** describes the hands-on assistance that CERTs provides to spur Minnesotans to take clean energy action. Table 5 details actions that resulted in energy savings or offsets in 2018, including audiences served, a description of the effort and the actual BTUs saved or offset. Overall, CERTs programming saved or offset 49.6 billion BTUs, or enough to power 1.4 million LED light bulbs annually. Cost savings in Table 5 reflect savings from energy efficiency projects only.

Table 1 CERTs Programming Summary

Audience	Program Description	BTUs Saved/Offset ²
Utilities	Saving Watts and Drops – Minnesota Energy Resources (MER) Water Conservation Kits: Distributed approximately 4,000 business reply cards in 56 communities, resulting in 353 kits to customers. Arranged 16 community-hosted kit distributions, resulting in 1,562 kits to customers. In total, savings of 82,940 therms and \$53,300 annually.	8,294,000,000
Utilities, Governmental	Savings Watts and Drops – Other utility and community efforts: With CERTs’ direct assistance, Falcon Heights Environment Commission	433,324,173

² Calculations include conversions as follows: 3,412 BTUs per kWh, 100,000 BTUs per therm

Audience	Program Description	BTUs Saved/Offset ²
Units, Underserved Communities	distributed 379 LED bulbs; Melrose Public Utilities distributed 708 bulbs to low-income, senior housing and weatherization agency; Austin Utilities and Owatonna Public Utilities distributed 240 faucet aerators; Westbrook Walnut Grove YES! Team distributed 100 LED bulbs in collaboration with Westbrook Public Utilities; CERTs on behalf of North Shore Area Partners (NSAP) installed 233 LED bulbs in senior single-family homes in Silver Bay in collaboration with Co-op Light and Power; and CERTs and NSAP also referred 14 senior single-family homes in Silver Bay to Minnesota Power for free energy assessments with installation of LED bulbs and water saving devices. Savings of 73,952 kWh, 1,810 therms, and \$12,526 annually.	
Utilities, Underserved Communities	MER – Multi-Family Building Direct Install Program: CERTs referred 44 properties, of which 14 moved forward in 8 communities (Albert Lea, Chisholm, Cloquet, Detroit Lakes, Eveleth, Grand Rapids, International Falls, Rosemount) in the program, serving 440 units or households. Half of the properties were low-income housing. MER partnered with Minnesota Power for dual savings for the properties (gas and electric). Savings of 14,350 therms, 89,047 kWh, and \$19,900 annually.	1,738,828,364
Utilities, Small Business	Otter Tail Power (OTP) Commercial Direct Install Business Blitzes: Conducted door-to-door outreach to main street businesses and commercial districts about free energy assessments offered by OTP’s contractor. CERTs visited 143 businesses in Pelican Rapids and Hallock in early 2018, 91 of which received assessments with direct install of LED bulbs, water-saving devices and water heater insulation. Follow-up of businesses from Frazee and Red Lake Falls blitzes in 2017 and Pelican Rapids blitz in spring 2018 showed 13 projects were completed at 12 businesses in these communities. Savings from directly installed energy efficiency measures of 271,669 kWh and \$25,800 annually and from follow-up projects of 213,228 kWh and \$20,200 annually.	1,654,468,564
Utilities, Small Business	Xcel Energy Partners In Energy – Winona Business Blitz: Collaborated with Center for Energy and Environment (CEE) and conducted door-to-door outreach to main street businesses about free energy assessments by MN Chamber of Commerce’s Energy Smart. CERTs visited 100 businesses, 63 of which received assessments. Immediately following CERTs outreach 30 signed up for Energy Smart assessments. Over the course of the summer, another 30 signed up. There were 45 post-audit activities by small and medium sized businesses. Savings of 99,228 kWh, 1,943 therms and estimated \$10,700 annually.	532,865,936

Audience	Program Description	BTUs Saved/Offset ²
Utilities, Small Business	<p>Implementation from past utility program outreach: Projects continue to move forward from previous CERTs business blitzes and home energy audit promotion. CERTs partnered with CenterPoint Energy to promote their Natural Gas Energy Analysis program to commercial customers by going door-to-door in the cities of Victoria, Shakopee, and Shorewood. CERTs carried out business blitzes for Austin Utilities and People’s Energy Cooperative. CERTs promoted MER Home Energy Audits in 6 communities, two of which coordinated audits with the electric utilities (Freeborn-Mower Cooperative Services in Albert Lea and OTP in Bemidji) for dual-savings for members/customers. Up to one year after these efforts, 9 businesses and 3 additional households have moved forward with energy projects, resulting in savings of 16,947 kWh, 1,419 therms, and \$2,600 annually. Also, one business installed 32 kW solar in Austin, generating 42,048 kWh annually.</p>	343,189,745
Utilities, Governmental Units	<p>OTP Publicly-Owned Power (POP): CERTs did outreach in 24 communities. Leech Lake Band of Ojibwe installed 39.24 kW solar array with OTP’s POP program, generating 51,561 kWh annually. There are also 6-7 communities in an initial stage of exploring the program.</p>	175,926,132
Small Business, Governmental Units, Utilities	<p>Property Assessed Clean Energy (PACE): CERTs engages communities and businesses in PACE programs administered by the Rural Minnesota Energy Board and the St. Paul Port Authority. This engagement resulted in 32 businesses utilizing PACE financing for energy efficiency (e.g., lighting and HVAC) and solar projects. The 11 energy efficiency projects are saving \$468,621 annually.</p>	18,135,753,004
Governmental Units	<p>Governmental clean energy assistance: CERTs guided numerous governmental units on resources for their clean energy projects and 6 cities, 1 county, and 1 school completed projects from CERTs assistance in 2018. Appleton Health Services, a city-owned nursing home, was awarded Energy Savings Partnership funds for an air conditioning project, saving 116,057 kWh and \$11,000 annually. Brooklyn Park utilized their own third-party solar process and CERTs’ guidance to install solar on 6 city buildings/properties. Initially joining CERTs’ Solar Possible program, Richfield chose to advance on their own with CERTs’ guidance and installed solar on 8 city-owned buildings. CERTs created a model RFP for individual cities to utilize third-party financing for solar on their building/properties and helped the cities evaluate proposals from solar installers. Using this assistance from CERTs, Shoreview</p>	13,757,296,596

Audience	Program Description	BTUs Saved/Offset ²
	<p>installed 123 kW at their Maintenance Center and Roseville is installing 205 kW of solar at 3 city-owned buildings/properties. Woodbury went through the third-party RFP process, but ultimately decided to subscribe to community solar gardens to power their Healthy Sports Center. CERTs also assisted Ramsey County Parks with their projects at The Ponds at Battle Creek and their headquarters in Maplewood. The West Central Research and Outreach Center credits the CERTs 2018 Conference for connecting with a wind turbine contractor for replacement blades that got two 10 kW wind turbines operational again. The solar and wind projects are generating 3,915,976 kWh annually.</p>	
<p>Small Business, Governmental Units, Underserved Communities</p>	<p>Minneapolis Green Cost Share: Metro CERT coordinated the review process for applications by forming a committee of experts to provide the City of Minneapolis a technical review of the projects. Metro CERT did outreach to potential committee members, created a scoring tool, reviewed projects, and is writing case studies about some of the projects. In 2018, 31 energy projects at 30 sites (9 in green zones that target underserved communities) were funded \$1,003,184 from City of Minneapolis, for a total investment of \$12,778,568 with matching funds. As of December 7, 2018, 6 projects (all solar) are finished, generating 643,289 kWh annually.</p>	<p>2,194,902,068</p>
<p>Governmental Units, Small Business</p>	<p>Supporting other programs: CERTs connected Altura Wastewater Pond facility and a business near Austin to Minnesota Technical Assistance Program's (MnTAP) efficiency assessments. Operational changes at both resulted in savings of 315,100 kWh and \$28,700 annually. CERTs co-hosted the Bemidji Solar United Neighbors (SUN) event to engage residents in a solar bulk-buy, ultimately resulting in 14 homes with solar generating 122,202 kWh annually. CERTs trained 7 Minnesota GreenCorps Energy Conservation Members on behavioral science and assisted one member with employee engagement and workstation efficiency projects at Hennepin County, resulting in 70,529 kWh and \$7,550 annually. Leveraging research on municipal liquor stores performed by Metro CERT's 2018 GreenCorps member, CERTs routed 31 stores through CEE's One-Stop Lighting program and one store upgraded lighting.</p>	<p>1,759,704,880</p>
<p>Agriculture, Small Business</p>	<p>USDA Rural Energy for America Program (REAP) and Rural Energy Development Assistance (REDA): Projects continue to move forward from previous CERTs efforts to promote REAP funding for energy</p>	<p>546,150,992</p>

Audience	Program Description	BTUs Saved/Offset ²
	efficiency in turkey barns and grocery stores. Two turkey barns and a rural grocery store received REAP funding in 2018, collectively saving 135,627 kWh and \$12,900 annually. Ripple-effects from REAP and REDA resulted in two residential solar systems of 10.6 and 8 kW.	
Total CERTs Program Savings		49.6 billion

Ongoing Efforts

- 2018 Seed Grants:** Each of the seven CERT regions announced their seed grant funding in early 2018. Project funding, labor only, was awarded to a range of energy efficiency and clean energy projects. The thirty-nine projects, slated to wrap up in 2019, are described here: mncerts.org/sites/default/files/CERTs2018SeedGrantsAnnouncement.pdf. **Audiences: Governmental Units, Utilities, Underserved Communities**
- Utility Conservation Improvement Program (CIP) Support:** In addition to the utility support described in Table 5, additional business blitzes were conducted for Otter Tail Power in Fertile, Parkers Prairie, Perham, and Twin Valley and for City of Faribault as part of Xcel Energy’s Partners in Energy. Associated energy savings will be accounted for in 2019. CERTs developed a Utility Menu of Services (mncerts.org/sites/default/files/CERTs-Utility-Menu-Services-Overview.pdf) to more clearly define ways in which CERTs can partner with utilities and presented with MN Department of Commerce to 40+ CIP utility personnel in Bemidji and Owatonna. The Menu has also been shared with Minnkota Power Cooperative’s network of 8 cooperatives and 10 municipal utilities, Breckenridge Public Utilities, and an email list of approximately 500 utility staff statewide. CERTs held a webinar and met individually with Austin Utilities, Connexus Energy, Crow Wing Power, Federated Rural Electric Association, Kandiyohi Power Coop, and Owatonna Public Utility on how PACE can be a nice complement to utility rebates. CERTs is supporting efforts to connect and align utility CIP and Community Action Agency joint work. **Audiences: Utilities, Small Business, Governmental Units, Underserved Communities**
- GreenStep Cities and Tribal Nations:** CERTs continues to support city and tribal-nation-level actions on clean energy best practices through the GreenStep program. The program now has 125 participants spanning from Mahnommen to Winona and Marshall to Grand Marais. CERT staff provide direct assistance to cities and tribal nations as they pursue energy-related best practices and connect cities with and intern manual and interns, where possible, for assistance in adopting the program, conducting building energy benchmarking, and taking action on the program best practices. Hosted a “Low-cost Strategies for Energy Efficient Public Buildings” session at the League of Minnesota Cities Annual Conference as well as two events – one in

Warren and one in Mankato – focused on building energy benchmarking and harnessing existing programs and financing to get project done. **Audiences: Governmental Units**

- **Community Solar Gardens (CSG):** CERTs has continued to serve as an educational resource to individual consumers, local governments, utilities and researchers working to understand community solar gardens or start community solar garden projects. In 2018, CERTs assisted 68 unique governmental units (cities, counties, schools, and Tribal Nations) and other community groups and organizations with community solar garden questions. This assistance has ranged from responding to siting and planning questions to evaluating contract terms, and understanding the potential for subscription-related savings. CERTs also counseled jurisdictions on their range of solar options beyond participating in solar gardens. **Audiences: Governmental Units, Utilities, Agriculture, Underserved Communities**
- **Onsite Solar for Jurisdictions:** In 2018, CERTs continued efforts to support local governments and schools interest in adopting solar for their own facilities. While public facilities can be good locations for solar, government entities cannot take advantage of federal tax credits for solar, and therefore, may choose to work with a solar developers to secure third-party financing. Following the release of a model request for proposals (RFP) for third-party solar in late 2017, CERTs began discussion with the Office of Enterprise Sustainability (OES) to jointly initiate a solar procurement effort for state, local government and school facilities. We launched this new effort, “Solar Possible,” in March 2018. This first-in-the-nation approach utilizes a State Master Contract and Site(s) Specific RFP to jointly procure on-site solar for state agencies, local governments, and schools. The collaborative approach aims to reduce barriers to adoption, facilitate shared learning, and drive projects to successful completion. This effort is geared toward jurisdictions in Xcel Energy territory and has included 11 state, county, city and school organizations putting forth potential sites for onsite solar. **Audiences: Governmental Units**
- **Connecting Low-Income Communities to Efficiency and Renewable Sources (CLICERS):** CERTs has assisted the Minnesota Department of Commerce with initial data gathering, interviews and a series of stakeholder meetings targeting identification of high value opportunities to lower the energy burden of low-income households. CLICERS activities have now moved into the implementation phase. CERTs is assisting the Minnesota Department of Commerce with understanding leveraging opportunities for community action agencies, clarifying best practices for low-income customer engagement in community solar gardens, and identifying best use case scenarios for onsite solar. **Audiences: Underserved Communities**
- **Property Assessed Clean Energy (PACE):** Over the past year CERTs has partnered with the St. Paul Port Authority (SPPA) to assist counties with education and information as they consider signing the PACE joint powers agreement (JPA). PACE allows commercial entities (including non-profits) to finance energy efficiency and renewable energy projects and then repay them as a separate line item on their property taxes. Five counties signed the JPA in 2018 including Isanti, Lake, Otter Tail, Steele, and Wabasha. In Southwest Minnesota, CERT partner the Southwest Regional Development Commission administers the Rural Minnesota Energy Board PACE program, another opportunity to finance clean energy projects. Staff featured PACE as an

opportunity to local business and local economic development authorities; to several utilities (as referenced above); and to CERTs steering committee members. **Audiences: Governmental Units, Small Businesses, Utilities**

- **MN Solar Pathways:** CERTs is one of five partners (led by the Minnesota Department of Commerce) working on the Minnesota Solar Pathways project. This effort is funded by the U.S. Department of Energy and aims to find least-risk, best-value strategies for Minnesota to achieve its solar energy goals. CERTs leads the communications-related work for the project. Major work in the last year involved hosting all of the Technical Committee meetings, posting three reports—Interconnection Assessment, Hosting Capacity Analysis, and Solar Potential Analysis—doing media outreach around the latter, and supporting other communications needs as necessary. Learn more at mnsolarpathways.org. **Audiences: Utilities**
- **Cities Charging Ahead:** CCA is cohort program geared toward planning for and expanding EV charging infrastructure across the state led by CERTs and the Great Plains Institute. There are 28 participating jurisdictions, including 16 cities in the Metro cohort, 5 cities in Southeast, 3 cities and one Tribal Nation in the Northeast, and 3 other cities in Greater MN (Warren, Morris and Hackensack). Participants are conducting fleet analyses for EVs (through Xcel Energy’s Fleet Carma), planning for future EV infrastructure, pursuing funding for Level 2 charging stations, and hosting educational events for their residents to increase EV awareness. **Audiences: Governmental Units, Utilities**
- **Electric Vehicles:** CERTs worked with Rochester Public Utilities and Moorhead Public Service on EV charger planning and connected Dakota Electric with fleet study resources and to Elk River Municipal Utility, an EV fleet leader. CERT also hosted a utility-to-utility information sharing session on electric vehicles with utility presenters (Otter Tail Power, Beltrami Electric Cooperative, Moorhead Public Service) to facilitate information and resources sharing cross utilities serving Northwest Minnesota. Nine different utilities participated. Four out of 11 survey respondents are more likely to move forward with a new or revised electric vehicle-related effort as a result of attending. **Audiences: Utilities**

Allocation of Legislative Funding Resources and Leveraged Resources

CERTs has 16 staff who account for 11.5 full time employees (FTE), 8 of whom are paid via legislative allocation. Staffs are based across CERTs’ four partner organizations and across all seven regions. Given the nature of CERTs work, staff are critical to carrying out CERTs clean energy work across the State and thus represent the largest share of CERTs spending followed by seed grants. These funds catalyze local projects, connect communities to clean energy efforts and attract other dollars to further clean energy around the State.

Beyond the legislatively appropriated dollars, CERTs continues to leverage additional support for its work. Funding and related programmatic efforts include U.S. Department of Energy Solar Energy Technologies office funding to advance solar, McKnight Foundation funding to spur community energy

projects and champion development and U.S. Department of Agriculture Rural Energy Development Assistance funding to assist farms and rural small businesses with renewable energy assessments.

These leveraged dollars reflect the value of the CARD investment in CERTs and how those core dollars have spurred and accelerated additional programming through complementary investments.