



Champion Report

Theme Area: **Energy**
 Champions: Jason Edens
 Robert Schafer
 Molly Zins

REPORTING PERIOD: April 15, 2014 through July 15, 2014

Goals/Strategies or Action Steps:	What NEW success have you had in moving your theme goals forward over the reporting period?
Energy in our Region	<p>The REPoCC was titled the Renewable Energy Innovation Project “REIP” and is a strategy or a proposal for how Minnesota can move forward progression of renewable energy ideation toward commercialization and has been utilized by the: Minnesota NGA’s (National Governors Association) Clean Energy and Economic Development Policy Academy, which is being spearheaded by the MN Department of Employment and Economic Development. Minnesota’s NGA has convened a group of state leaders working to craft renewable energy policy for the next legislative session.</p> <p>In addition to this study’s influence on crafting state policy, we have also had conversations with The Energy Foundation out of San Francisco as to how they could potentially fund the implementation of this plan. Upcoming meetings with the University of Minnesota’s new Energy Transition Lab and their new Executive Director, Ellen Anderson, might transpire in a unique partnership between Central Lakes College and the UofM that moves forward implementation of the REIP strategy.</p>
Energy in our Region & Increase energy efficiency	<p>Renewable Development Fund Regional Solar for Schools Project is still a possibility. Across 5 school districts, Region Five and its partners would install 1.5 MW of solar electricity reducing energy costs for the schools and providing valuable STEM curricular opportunities. Despite being among the highest ranked proposals considered by the PUC and the Xcel RDF review board, the project was not funded. However, it has become immediately clear that many of the funded projects were not nearly as well prepared as our region’s project and they may lose their funding due to the 90 day demonstrable progress rule. Region Five is next in line to receive funding, and if that happens, Royalton, Brainerd, Pequot, Pine River and the Leech Lake schools will see PV on their roof tops by approximately this time next year.</p>
Energy in our Region & Increase energy efficiency	<p>There are now thousands of Toasty Turkeys in our region. Because of an innovative project supported by the University of Minnesota Central Region Sustainable Development Partnership, CERTs and Agstar, RREAL just completed the installation of a unique solar thermal system on for a turkey producer here in Central Minnesota. The ventilation make-up air heating system could transform the energy economics for the nation’s largest producing turkey state – Minnesota.</p> <p>In December, the turkey producer will host an event coordinated by RREAL and CERTs to present the</p>

	project findings and demonstrate the unique system. The Toasty Turkey findings will also be featured at the 2015 CERTs statewide conference.
Energy in our Region	With funding from the Otto Bremer Foundation and the Blandin Foundation, RREAL is continuing to scale its Solar Assistance (solar heat for low-income families) program. This year, RREAL is installing scores of low-income installations in partnership with several communities in our region including the Leech Lake Band of Ojibwe.
Energy in our Region	With support from the University of Minnesota Central Region Sustainable Development Partnership, RREAL is investigating the extent to which solar water heating systems can offset emissions associated with outdoor wood boilers when such systems are designed in combination with one another. Wood heat accounts for 54% of statewide polycyclic aromatic hydrocarbons and about a quarter of all PM2.5 emissions, so this research will be valuable in terms of evaluating the role that solar thermal can play in reducing such emissions while also stabilizing cost.
Increase energy efficiency	The Made in Minnesota solar thermal rebate program remains available and provides 25% of the total system costs for both residential and commercial systems. \$160k remains in the pool, and it is available to anyone on Minnesota Power, Xcel Energy, Alliant Energy or Ottertail Power.
Increase energy efficiency	Central Lakes College has developed a proposal for the Renewable Development Fund grant to be submitted by July 18 for approximately \$400,000 worth of PV and biofuels based electrical generation.
Increase energy efficiency	Central Lakes College Ag & Energy Center purchased an additional heavy tillage 4-wheel drive John Deere tractor and has converted it to straight vegetable oil (SVO) proceeding with plans to farm approximately 1,400 acres of land using locally produced fuel.
Increase energy efficiency	On Wednesday, July 16 from 10am-12pm join Central CERT, the City of Royalton, and Royalton's Youth Energy Summit (YES!) team to learn about the exciting clean energy developments in Royalton! We'll learn about Royalton's work as a GreenStep City and what they've done to save energy and install solar. We'll also hear about the efforts of local teens in the YES! team. The event is free, and light snacks and refreshments will be provided. For more info and to RSVP: https://certroyalton.eventbrite.com
Increase energy efficiency	The Minnesota Legislative Energy Commission will be touring three clean energy sites with RREAL to discuss propane supply and alternatives on Monday, July 28, 2014 . A public forum following the tour will be open to the public. The commission evaluates the energy policies of the state, assessing the impact on the future of the environment and the economy. The commission also monitors the state's progress in achieving goals to develop renewable sources of electric energy; evaluates progress in reducing greenhouse gas emissions; reviews and recommends proposed energy legislation and takes public testimony on energy issues.

How are you working with any of the other RR Theme areas?

The Sprucewood Workforce Housing complex in Baxter involved the following theme engaged the housing and energy theme areas in a collaborative effort. The Sprucewood Workforce Housing complex in Baxter is complete. RREAL installed a 40 kW solar electric installation to provide long term energy cost stability. More than half of the solar panels have been installed and are fully functional. This collaborative project between the Central MN Housing Partnership,

Keuper's and RREAL is very much a product of the Resilient Region collaborations.

In partnership, RREAL and Brainerd HRA will be demonstrating the use of solar electricity to provide stable energy costs for low-income residents. This fall, RREAL will be installing a grid-tied, residential solar electric system on a "scattered-site" HRA unit. The intention is to do so across all appropriate scattered site rental units leveraging recently received USDA RCDI funding.

List any Goals or Recommendations within the plan that your team of theme Champions are struggling to address?

Creating a more energy efficient region through working with utilities and emphasizing energy efficiency is part of the plan goals and was reinforced as a priority at the January 2014 community input session. The energy team continues seek opportunities to better address this goal area. The aforementioned Made in Minnesota solar thermal rebate program provides an opportunity for this goal and the team continues to promote this program – and welcomes any suggestions for increasing outreach.

Energy

Energy Issue I (EI)

Energy in our region: Not all of the jobs that were lost in the past ten years were to developing countries with lax regulatory oversight and low wages, many jobs were lost to advancements in technology and related productivity gains. Because the region has many companies that are working within energy related fields, developing breakthrough technology in energy production will be critical for advancing the industry cluster and the region.

Energy Issue I Goal

Increase energy efficiency: Create a more energy efficient region through working with utilities and emphasizing energy efficiency. Employ education and outreach to capitalize on technological advancements in energy including smart grid technologies and renewable energy conducive to our region such as geothermal, solar, wind, biomass, energy storage and hydro power.

Recommendation 1

Public/private collaboration: Increase collaboration between public and private sectors to implement new energy technologies, including state and federal financing for private/public partnerships.

Action Step A

Partnerships: Work with Habitat for Humanity to build additional energy efficient homes and work with Community Action Partnership (CAP) agencies to weatherize homes.

Action Step B

Priorities: Target group homes and programs serving the low-income, senior, and disabled populations.

Action Step C

Information sharing: Add utilities to email notification for agendas of city/county/Region 5 Development Commission's EDA/HRA/Planning Commissions, etc. so the utilities can review for possible projects. EDA to send email to utilities with prospects/commercial building projects.

Action Step D

Seek out information: Utilities regularly ask EDAs for information about possible commercial building opportunities.

Action Step E

Identify contacts: Create a contact list of utility personnel that all the utilities can refer to regionally.

Action Step F

Rebate information: Post utility rebates on the new Resilient Region website and link to utility websites.

Action Step G

Coordinate between utilities: Set up a regular schedule for utilities to meet on the issues of energy efficiency and low-income programs.

Action Step H

Utility contact information: Inventory regional utilities and post a regional utility map and contacts on the Resilient Region website.

Action Step I

Policy change: Collectively address the policy issue of inequity between credits for BTUs and/or KWHs saved. Ask for support from energy advocate agencies and local governments.

Action Step J

Educating farmers: Support energy efficiency in agriculture. Plan a statewide conference for the agriculture industry and farmers focusing on energy efficiency. Support the Minnesota Project's Dairy Initiative on energy efficiency.

Action Step K

Educate commercial and industrial: Campaign for commercial and industrial efficiency.

Recommendation 2

Support renewable energy requirements: Energy users support utility companies in meeting renewable energy requirements

Action Step A

Standardize rebates: Standardize rebates across utilities.

Action Step B

Neighborhood energy use: Work with Center for Energy and the Environment (CEE) to conduct neighborhood energy challenges. Educate residential consumers.

Action Step C

Consumer energy use: Use existing software (MyMeter) to encourage customers to manage usage.

Action Step D

Case studies: Publicize case studies of families that have utilized programs that save energy.

Action Step E

Publicize programs: Encourage utilities to list programs available for low-income residents

Action Step F

Low-income focus: Encourage utilities to lead discussions around low-income gaps.

Action Step G

Coordination and promotion: Coordinate and promote existing efficiency programs

Recommendation 3

Conservation and renewable technologies: Encourage and teach conservation and advance practical renewable energy technologies that have a reasonable return on investment. Teach people how to conserve energy, manage energy demand & about new technologies – without bias as to type of energy source. Focus on conservation. Discuss/teach how energy sources contribute to pollution.

Action Step A

Economic development: Create an energy incubator campus, leverage existing expertise, and create target incentives to advance the commercialization of clean, green, sustainable enterprises

Action Step B

Solar access: Ensure access to solar energy for all housing.

Action Step C

Equipment: Help finance energy efficient business equipment for commercial, industrial and agricultural enterprises.

Action Step D

Policy: Incentivize energy conservation through such actions as tax incentives for home owners and businesses that utilize solar, wind, etc. Reduce regulations that impede renewable energy production. Promote policy that supports decentralized energy production. Provide incentives such as cost share incentives and rebates to help energy users adopt renewable energy technologies.

Action Step E

Energy production: Focus on small scale energy production. Cultivate the hazardous energy sources like nuclear. Focus on research not production.

Action Step F

Research: Support research on conservation and renewable technologies.

Action Step G

Waste to energy: Support opportunities to turn waste into energy.

Action Step H

Service delivery planning: Engage in planning for brown-out/black-out times when utility companies are not able to operate.

Action Step I

Infrastructure: Pursue solutions to building local renewable energy infrastructure (i.e. electric car stations).

Action Step J

Education: Utility companies should partner with schools to provide classroom-based education on renewable energy.