

TURNING WASTE TO CASH IN WISCONSIN - PROJECT SUMMARY

Applicant: Wisconsin State Energy Office; **Project Director:** Amanda Mott, Energy Projects Specialist

The Wisconsin State Energy Office (SEO) requests \$75,000 to implement its *Turning Waste to Cash in Wisconsin* project, which intends to assemble an inclusive industrial energy efficiency (IEE) and combined heat and power (CHP) stakeholder group to evaluate the current state of play in Wisconsin; identify market and non-market barriers to IEE and CHP deployment; and develop a replicable, sustainable and effective action plan to eliminate these barriers, with the ultimate goal of stimulating the economy, creating jobs and protecting the environment. The SEO has identified two specific objectives that will be accomplished through this project:

Objective 1: Increase awareness of cost-effective IEE and CHP opportunities in Wisconsin by: **(1)** Holding public stakeholder meetings targeted for industrial, economic development and consulting representatives; **(2)** Hosting 1-2 seminar(s) dedicated to CHP through implementation of Anaerobic Digester (AD) systems at industrial facilities or wastewater treatment plants; **(3)** Outreach including best practices, examples from select projects, the Wisconsin Action Plan (WAP), and a discussion board portal; and **(4)** Earned Media and events highlighting major projects and WAP efforts.

Objective 2: Implement sustainable IEE and CHP projects in Wisconsin by: **(1)** Creating a stakeholder group to analyze and identify market/non-market barriers, develop a WAP addressing identified barriers, and assign roles for WAP implementation; **(2)** Utilizing the Wisconsin Public Utility Institute and their effective Chatham House Rule policy to increase open dialogue amongst utilities developing viable solutions for utility implementation barriers; **(3)** Helping implement at least 3 CHP projects focusing on food processing, agricultural and wastewater treatment facilities; and **(4)** Implementing 15 projects/year identified through Energy Savings Assessments conducted during the course of the WisconSEN (Better Plants) program.

President Obama's August 30, 2012 Executive Order (EO) solidified the U.S. commitment to IEE and CHP. The SEO has served as a leader in contributing to the EO goals and is well situated to lead the effort to meet the *Turning Waste to Cash in Wisconsin* objectives. Current SEO efforts that complement this project include:

- WisconSEN (Better Plants) program (Energy savings assessments at industrial facilities);
- Clean Energy Manufacturing Revolving Loan Fund (Low interest loans for energy efficiency or renewable energy projects at WI manufacturers);
- EI Communities Program (140+ communities committed to reducing energy use 25% by 2025; 20 communities developed action plans);
- Fuels Reduction & Wood Energy Plan (CHP biomass boiler upgrades at a paper plant and hospital);
- EE Projects at Craft Breweries (5 craft breweries implemented EE projects).

Finally, Wisconsin has one of the highest concentrations of dairy and food processing facilities in the country and has also long served as a national leader in AD system implementation. Building upon that foundation, the state will soon be home to an innovative AD system that produces biogas from combined organic wastes of a farm and a nearby chicken processing facility. The biogas will be transported via pipeline and burned at the processing facility for heat and electricity. A new state mapping tool allows users to easily replicate such partnerships by capitalizing on available organic substrates at farms and nearby food processing facilities. The SEO proposes to encourage greater CHP AD development through the WAP and subsequent activities.

Through the *Turning Waste to Cash in Wisconsin* project, the SEO intends to remove regulatory, market and utility barriers to IEE and CHP project development, creating a replicable and sustainable model. The SEO intends to continue these efforts after the two year funding period ends through WAP implementation and regular developed SEP Formula programs. Accomplishing this will speed economic recovery and development, create and retain jobs and open dialogue amongst invested stakeholders including utilities, regulatory agencies, economic development organizations, non-governmental organizations, academia and trade associations as detailed in the letters of support and full application.

Wisconsin Action Plan

The Wisconsin Action Plan (WAP) will serve as a tool to address barriers to Industrial Energy Efficiency (IEE) and Combined Heat and Power (CHP) project implementation and identify solutions, actors and the roles they would play in overcoming those barriers. Even after the *Turning Waste to Cash in Wisconsin* program has ended, the WAP will act as a guide for further activities to realize the State's IEE and CHP goals.

The WAP focuses on three primary facets of IEE and CHP implementation:

- Standby Rates and Distributed Generation;
- Interconnection of private power generators with local utility grid infrastructure;
- How trading instruments like Renewable Energy Credits (REC), Renewable Identification Numbers (RIN), and new programs for Phosphorus and Carbon can affect IEE and CHP development

Through the course of *Turning Waste to Cash in Wisconsin*, our stakeholders have vetted these issues and looked into what makes the most sense in Wisconsin for project development in IEE and CHP, as well as for anaerobic digesters. Once completed, this information will be made available on the [State Energy Office's website](#), as well as through the electronic media of our partner organizations.

Turning Waste to Cash in Wisconsin has several remaining goals to accomplish before the program's conclusion in January of 2016, including:

- The Wisconsin Biogas Conference in Appleton on November 12, 2015;
- An in-person stakeholder meeting to take place in December 2015;
- Development of the Wisconsin Action Plan; and
- Development of an Implementation Model for Anaerobic Digestion systems in Wisconsin to be published on US DOE website

This program is federally funded by State Energy Program funds through the US Department of Energy and managed by Wisconsin State Energy Office staff, Maria Redmond (maria.redmond@wisconsin.gov) with assistance provided by Clint Fandrich (clinton.fandrich@wisconsin.gov).

Turning Waste to Cash in Wisconsin - Stakeholders

George Dreckmann	City of Madison
Keith Reopelle	Clean Wisconsin
Masood Akhtar	Cleantech Partners
Tony McKimmy	Dairyland Power Cooperative
Melissa Van Ornum	DVO
Joe Kramer	Energy Center of Wisconsin
Steve Kihm	Energy Center of Wisconsin
Tamara Sondgeroth	Focus on Energy
Corey Honl	GE
Ryan Rudnitzki	GE
Art Harrington	Godfrey & Kahn
Sarah Rimmel	Godfrey & Kahn
Amanda Bilek	Great Plains Institute
Alan Eber	Gundersen Health
John Nicol	Leidos (Focus on Energy)
Craig Schepp	Leidos (Focus on Energy)
Mark Milby	MEEA
John Bobrowich	MWERC
Alan Perlstein	MWERC
Bruce Beihoff	MWERC
Jeffrey Anthony	MWERC
Clifford Haefke	University of Chicago - Illinois; Midwest CHP TAP
Chris Yuan	University of Wisconsin - Milwaukee
Brian Langolf	University of Wisconsin - Oshkosh
Aimee Niendorf	University of Wisconsin - Oshkosh
Kenny Johnson	University of Wisconsin - Oshkosh
Janet Lynch-Eisenhut	WECC
Todd Stuart	WIEG
Maria Redmond	Wisconsin State Energy Office
Clint Fandrich	Wisconsin State Energy Office
Tom Zelinski	Wisconsin Department of Natural Resources - Air
Tom Nowakowski	Wisconsin Department of Natural Resources-Green Tier
Kathy Heady	Wisconsin Economic Development Corporation
Gary Radloff	Wisconsin Energy Institute
Earl Gustafson	Wisconsin Paper Council
Preston Schutt	Wisconsin Public Service Commission
Cara Lee Mahany Braithwait	Wisconsin Public Utility Institute
Herb Hannam	WMEP
Randy Bertram	WMEP
Wes Arndt	WPPI
Erik Kostecki	WPPI