ROGER ROTH
PRESIDENT
WISCONSIN STATE SENATE

April 5, 2017
Senate Committee on Elections and Utilities

2017 Senate Bill 144
Relating to: resources eligible for renewable resource credits

Currently the renewable portfolio standard (RPS) requires all Wisconsin electric providers to provide their retail electricity customers with a percentage of electricity from renewable resources, which includes solar, wind power, geothermal technology, biomass, hydroelectric power, tidal or wave action, certain fuel cells and fuel pellets, and other specified resources.

An electric provider, customer, or member of an electric provider in Wisconsin may create a renewable resource credit (RRC) for use of eligible renewable resources that displaces their use of electricity derived from conventional resources.

Senate Bill 144 allows heat that is a byproduct of a manufacturing process to be considered a renewable resource under the RPS law.

How does it work? Foundries, paper mills, and other manufacturing industries produce waste heat as a byproduct whenever their operations are running, which is often around the clock every day. Rather than releasing the heat, it can be used to produce power for another manufacturing purpose, using no additional fuel and creating no additional emissions. Some of the uses include steam generation or heating water in the manufacturing process, space heating to dry manufactured products, and heating or cooling the facility.

Under this legislation, either a utility or a manufacturing company are incentivized to develop waste heat recovery. A utility could use a waste heat project as both a regulatory compliance tool and a long-term investment. A manufacturer investing in heat recovery equipment could reduce the payback period with revenue created by RRCs.

Why is this important? Manufacturing drives Wisconsin's economy. All around the state, our industries often outperform the nation. In particular, my area in the Fox Valley and throughout Northeast Wisconsin has relied on paper industries and foundries to become one of the top manufacturing centers in the country. SB 144 can help our manufacturing base stay competitive.

It is my hope that SB 144 will further encourage manufacturers to turn their waste heat into a useful byproduct. By doing so we can save on energy costs, create new manufacturing jobs, strengthen the state's economic competitiveness, and help protect the environment through this common-sense measure.

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Senate Committee on Elections and Utilities
Public Hearing, April 5, 2017

Senator LeMahieu and members of Elections and Utilities Committee, thank you for affording me with the opportunity to testify on behalf of Senate Bill **144**, relating to resources eligible for renewable resource credits.

Waste heat is created from any industrial process that involves combining raw materials into a useable product. During this process, heat is created as a byproduct. Too often, heat energy is inadvertently vented through smokestacks and wasted. Senate Bill **144** will encourage more industries and manufacturers to promote heat waste collection procedures to lessen utility expenses, and use the recovered heat for future energy generation.

Considering that that waste heat energy is being recycled and repurposed, Senate Bill 144 would designate heat energy recovery as a renewable resource as defined under Wisconsin's Renewable Portfolio Standards (RPS). Moreover, a number of our Midwestern neighbors (Minnesota, Iowa, Indiana, and Michigan) in addition to fifteen additional states, have adopted language to define waste heat as a renewable resource or energy efficiency. Manufactures may utilize waste heat recovery around the clock without additional combustion or emissions.

Lastly, companies and manufacturers that invest in waste heat collection could potentially trade their energy credits on the open market.

I would, at this time, be more than willing to answer any questions members of the committee might have. Thank you for your time and consideration.

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Midwest Food Products Association, Inc.

WISCONSIN CAST METALS ASSOCIATION

WISCONSIN INDUSTRIAL ENERGY GROUP

WMC
WISCONSIN MANUFACTURERS & COMMERCE

WISCONSIN PAPER COUNCIL

Senate Committee on Elections and Utilities
April 5, 2017

Panel of Industrial Customers:
Todd Stuart, Executive Director, Wisconsin Industrial Energy Group
Ryan Smith, Vice President, Wisconsin Paper Council
Steve Heinzen, Attorney, Heinzen Law

Testimony in Support of Senate Bill 144

Good morning, Mr. Chairman, and members. Thank you for the opportunity to speak to you in support of Senate Bill 144 and answer any questions you may have.

We believe SB 144 is intended to spur capital investment, save on energy costs, and create or retain jobs for Wisconsin's manufacturing base.

As you may know, Wisconsin currently has among the highest electricity rates in the Midwest. Our industries support thousands of good paying jobs, compete locally, regionally and globally. Wisconsin's manufacturers are energy-intensive and, as a result, must balance energy costs in order to remain competitive. Energy costs are one of the primary factors considered for retention, relocation or expansion for manufacturers throughout our great state.

Wisconsin has one of the most manufacturing-dependent economies in the country. We are the number one state for paper and near the top for foundry production. Anywhere there is an industrial process that involves taking raw materials and making them into a useful product, heat is created as a byproduct.

Waste heat recovery or "recycled energy" is the process of using recovered waste heat to generate electricity. Heat that is no longer needed in an industrial process is often vented through stacks into the outside air. Waste heat can be captured around the clock with no combustion and no air emissions. If waste heat can be used to generate power and/or reduce the need to consume electricity, then it should be recognized as a clean, renewable and efficient technology.

Under SB 144, either a utility and/or manufacturing company could invest in waste heat recovery and have it recognized in state law as a renewable resource. Many surrounding Midwest states, and at least 19 states in total, have some form of waste heat language included in their renewable resource and/or energy efficiency definitions.

This change in law would create an additional renewable attribute that would allow companies an additional revenue stream, as they currently trade these credits often in other markets and in other areas of the country. In other words, it may provide a bigger market and more liquidity for RRCs created by Wisconsin manufacturers. It may help large waste heat recovery projects that are currently under consideration "get over the hump" and therefore provide economic and environmental benefits.

Similar language to SB 144 has also been proposed in Congress in amendments to the federal tax code and renewable energy law updates. It is possible that it is taken up as part of the federal tax law changes expected later this year.

Here's one example of the type of project that we're hoping to promote: historically, foundries gave off waste heat into the atmosphere to lower melt system temperatures prior to air pollution control equipment. Waupaca Foundry installed a closed-loop heat recovery system at Plant 1 in Waupaca. Today, Plant 1 uses the waste heat to increase the temperature of a water/glycol system that pre-heats air for the plant. It provides nearly all the building heat for winter months, as well as year-round hot water. It has also resulted in an annual reduction of 4,600 metric tons of carbon dioxide. Waupaca Foundry earned the 2009 Governor's Award for Excellence in Environmental Performance for this project. Waupaca Foundry just became the first foundry in the country to achieve ISO 50001 certification, the "gold standard" in energy management, in part due to their waste heat recovery projects.

Wisconsin's manufacturers are working hard to mitigate energy costs. Of the original 32 companies across the country that originally signed on to the U.S. Department of Energy's Better Buildings, Better Plants program, nine of them were from Wisconsin. These companies are voluntarily cutting their energy use by 25 percent over ten years. Around 30 large state companies participate in the Strategic Energy Management (SEM) Leader program. Our respective trade associations are proud to represent these companies and we support SB 144 as a way to help reduce rising energy costs and create an additional revenue stream for manufacturers.

Thank you for the opportunity to provide a brief overview of SB 144. We look forward to working with you and answering any questions you may have.