

# **Wisconsin's Clean Energy Policies**

## **December 2019**

Prepared by

Dominic W. Holt, MSW, MFA  
Analysis Services Section  
Bureau of Environmental Analysis and Sustainability  
Division of External Services  
Wisconsin Department of Natural Resources  
[dominic.holt@wisconsin.gov](mailto:dominic.holt@wisconsin.gov)

## **Table of Contents**

<b>Background</b> .....	1
<b>Policies</b> .....	1
State Government .....	1
Residential and Commercial Building Codes .....	4
Combined Heat and Power Generation .....	4
Utilities .....	4
Transportation .....	5
Appliance Efficiency Standards .....	6
<b>Conclusions</b> .....	6

## **I. Background**

In August 2019, Governor Tony Evers issued [Executive Order 38](#), charging state agencies with addressing climate change, with a focus on sustainability and clean energy. According to the American Council for an Energy-Efficient Economy (ACEEE), “Energy efficiency measures have been proven by many analyses to be the most cost-effective and fast-track way to address global climate change while reducing energy usage and more affordably expanding the use of renewable energy sources.”<sup>i</sup> Founded in 1980, ACEEE is a national non-profit organization that scores states’ energy efficiency and related policies.

This document summarizes Wisconsin’s clean energy, energy efficiency and other climate-related policies, and reports the ACEEE scores for those policy areas. This document also includes some comparisons to Minnesota’s policies. Unless otherwise noted, the following information comes from the ACEEE profile of Wisconsin.<sup>ii</sup>

## **II. Policies**

### **State Government**

(ACEEE score: 3.5 out of 6)

#### ***Energy-related State Support and Incentives<sup>iii</sup>***

- [Clean Energy Manufacturing Revolving Loan Fund](#)
- [Property Assessed Clean Energy Financing Program](#)
- [Energy Innovation Grant Program](#)
- [Biofuels Retail Advancement in Wisconsin Transportation](#)
- [Energy Independent Communities](#)
- [Focus on Energy](#)
  - [Renewable Energy Competitive Incentive Program](#)
- [Municipal Energy Efficiency Technical Assistance Program](#)
- [State Heating Oil and Propane Pricing Program](#)
- [Wisconsin Statewide Wood Energy Team](#)
- [Wisconsin Energy Statistics](#)
- [Home Energy Plus](#) includes Wisconsin Home Energy Assistance Program, Home Energy Plus Furnace Program, and Weatherization Assistance Program.
- Other incentives for renewables and/or efficiency exist in Wisconsin, supported by the state, utilities, localities or federal agencies. See [Database of State Incentives for Renewables and Efficiency](#) for a full list.

#### ***Renewable Energy***

- Wisconsin ranks 41st in national solar power generation and 25th in national wind power generation.<sup>iv</sup>
- Wisconsin relies heavily on coal and natural gas (49% and 26% respectively) for the state’s electricity generation, while many other states are moving away from those sources.<sup>v</sup>
  - Approximately 10.34% of Wisconsin’s electricity sales comes from renewable resources, including hydroelectric, biomass, wind and solar.<sup>vi</sup>
  - Twenty-five percent of Minnesota’s electricity generation comes from renewables.<sup>vii</sup>

### ***Renewable Energy Standard***

- In 2005, Wisconsin Act 141 set a statewide goal that 10% of total retail sales of electricity in Wisconsin would come from renewable resources by 2015. The state achieved this goal in 2013 and has remained in compliance every year since.<sup>viii</sup>
  - This standard is the lowest among neighboring states Illinois, Minnesota and Michigan whose standards are, respectively, 25% by 2025, 25% by 2025 and 15% by 2021.<sup>ix</sup>
  - A higher renewable energy standard in Wisconsin could increase the renewable energy economy in the state.<sup>x</sup>

### ***Interconnection Standards***

- These standards layout how distributed renewable generation can connect to the electric grid.
- Wisconsin's 2004 Interconnection Standards allow distributed generation, including combined heat and power, up to 15 MW in capacity.
- Wisconsin has not updated its standards to reflect modern technology.
- Minnesota adopted modern standards in 2018, helping to make the connection process more efficient, more affordable and faster.
- Minnesota's standards apply to systems up to 10 MW in capacity.<sup>xi</sup>

### ***Community Solar Policy<sup>xii</sup>***

- These policies expand access to solar energy for communities and businesses that cannot otherwise implement solar projects.
- Wisconsin does not have statewide community solar policies, but some utilities in the state have installed solar projects.
- Minnesota's Community Solar Garden Program sparked substantial growth in community solar and related business activity in the state.

### ***Carbon Pricing Policies***

- No.

### ***Building Energy Disclosure Policy***

- No.

### ***Energy-Efficient Public Buildings***

- Wisconsin's Department of Administration (DOA) ensures new state buildings are 10% more energy-efficient than commercial code – unless that energy efficiency is not cost-effective on a life-cycle basis (Executive Order 63, 2012).
- State agencies must submit energy plans that include estimated energy savings.

### ***Energy-Efficient State Fleets***

- The Department of Administration's fleet management policy required state agencies to collectively reduce gasoline use by at least 20% by 2010 and 50% by 2015 in state-owned vehicles, compared to 2006 levels.
- The policy also required agencies to reduce the use of petroleum-based diesel fuel by 10% by 2010 and 25% by 2015.

- The Department of Administration encourages agencies to collectively reduce gasoline and diesel fuel use in state-owned, petroleum-based vehicles by at least 20% for gasoline by 2015 and 10% for diesel by 2015, compared to 2006 levels.

### ***Facilities and Performance Contracts***

- The Department of Administration must promote the use of energy conservation methods in state-owned facilities, to implement and refine a statewide energy monitoring system, and to develop and implement initiatives to replace fossil fuels with renewable energy fuels (Wis. Stats. § 16.85 (5)).
- The Department of Administration can provide funding to state agencies for energy conservation construction projects (Wis. Stats. §20.866 (2)).
- The Wisconsin Building Commission “may not” authorize funds for developing any new building, structure, major remodeling or building addition unless the design includes an active solar energy system, a photovoltaic solar energy system or other renewable energy resource system. That is unless a technical and economic feasibility evaluation indicates this inclusion is not justified (Wis. Stats. §13.48 (2) (h)).
- Other rules and standards are found in the Sustainable Facilities Policy, Energy Conservation Policy and Energy Design Guidelines (in the Wisconsin Building Commission Policy and Procedures Manual, and Wis. Adm. Code §SPS 363).
- Local governments can contract with qualified energy savings performance contractors to reduce energy costs. The contractor must first provide a report recommending how much should be spent on energy conservation and facility improvement, and related savings (Wis. Stats. §66.0133).
  - The [Municipal Energy Efficiency Technical Assistance Program](#) helps municipalities through these processes.

### ***Research and Development Capacity in Wisconsin<sup>xiii</sup>***

- Seventhwave (previously Energy Center of Wisconsin)
  - This is an independent nonprofit advancing sustainability through energy consulting, continuing education, research and program design.
- Wisconsin Focus on Energy’s Emerging Technology Program
  - This program promotes emerging, industrial, energy efficiency technologies.
- Solar Energy Lab – UW
  - The lab emphasizes application of engineering concepts to energy problems.
- Wisconsin Energy Institute – UW
  - This is an educational research group focused on electricity systems, transportation and fuels, as well as sustainability and society.
- Great Lakes Bioenergy Research Center – UW and Michigan State University
  - The center develops sustainable biofuels and bioproducts made from dedicated energy crops grown on marginal lands.
- Midwest Energy Research Consortium
  - The consortium’s goal is to make the Midwest the leader in energy, power and control.

## **Residential and Commercial Building Codes**

(score: 3.5 out of 8)

- The residential building energy code is mandatory for one- and two-family dwellings, incorporating the now-outdated 2009 International Energy Conservation Code with some amendments (Wis. Admin. Ch. SPS 322, Wisconsin Uniform Dwelling Code).
- Commercial building energy codes reference the now-outdated 2015 international codes but also include weakening amendments.

## **Combined Heat and Power Generation**

(score 0.5 out of 3)

- Wisconsin's 2004 Interconnection Standards allow distributed generation, including combined heat and power generation (CHP), up to 15 MW in size.
- Combined heat and power generation is not identified as an eligible resource for Wisconsin's Energy Efficiency Resource Standard, but Focus on Energy supports CHP deployment in some sectors.
- Combined heat and power generation systems that replace electricity use and are fueled by renewables are eligible for Wisconsin's Renewable Energy Standard.

## **Utilities**

(score 7.5 out of 20)

- Investor-owned electric and natural gas utilities must spend 1.2% of annual gross operating revenues on renewable resource and energy efficiency programs.
  - They can also operate voluntary energy efficiency or renewable resource programs.
- Municipal and retail electric cooperative utilities must collect an average of \$8 per meter to fund energy efficiency programs.
  - They can use this money to participate in Focus on Energy or to operate their own commitment to community programs.
- Focus on Energy has energy efficiency and renewable energy programs for residential and nonresidential sectors such as business, government, institutions, industry and agriculture.

### ***Net Metering***

- In Wisconsin, net metering is a billing mechanism available for investor-owned and municipal utility customers who generate their own renewable electricity. When a commercial, industrial or residential customer using renewable energy is net metered, the utility credits the customer for the energy the customer generates.<sup>xiv</sup>
- The Wisconsin Public Service Commission (PSC) issued an order in 1982 that requires investor-owned and municipal utilities to allow net metering to customers who generate electricity with systems up to 20 kW capacity.
  - Some utilities allow net metering for larger systems.<sup>xv</sup>
- While Wisconsin's net metering policies and pricing vary from utility to utility, Minnesota's more streamlined approach differs significantly.<sup>xvi</sup> The following are some examples.
  - Minnesota's policy covers all types of utilities and many more sectors than Wisconsin's approach.<sup>xvii</sup>

- In Minnesota, renewable energy systems that are eligible for net metering include:<sup>xviii</sup>
  - investor-owned utilities’ customers with systems of less than 1000 kW in capacity; and
  - municipal utilities’ and electric cooperatives’ customers with systems of less than 40 kW in capacity.
- In addition to other differences, Minnesota has a clear set of “net excess generation” policies all utilities must follow when compensating customers for generating their own electricity.<sup>xix</sup>
- Minnesota’s statewide net metering policy has helped stabilize the renewable market and helped promote transparency for smaller, distributed generation projects in the state.<sup>xx</sup>

### ***Utility Deregulation<sup>xxi</sup>***

- No.

### ***Retail Choice of Competing Electricity Providers<sup>xxii</sup>***

- No.

### ***Energy Efficiency Resource Standards (EERS)***

- This kind of standard sets an energy savings target for utilities.
- Wisconsin’s 2006 EERS requires that energy efficiency goals be met and relies on the incentive-based Focus on Energy program to achieve those goals.
- PSC establishes energy efficiency and renewable goals, as well as measurable targets, at least every four years.
  - For 2019-2022, the minimum net lifecycle electric savings goal is roughly 0.6–0.7% of sales per year.
  - For 2019-2022, the minimum net lifecycle natural gas savings goal is roughly 0.6% savings as a percent of sales on a net basis.

## **Transportation**

(score 1 out of 10)

### ***Public Transit Funding***

- Over the last two decades, Wisconsin has prioritized funding for highway construction and maintenance while providing only a fraction for public transit.<sup>xxiii</sup>
- In 2019, Governor Evers’ Transportation Stakeholder Task Force found that current programs and funding are insufficient to meet the capital needs of public transit systems in Wisconsin.<sup>xxiv</sup>
  - The task force identified the following policy and budget opportunities:
    - increase funding for public transit and modify the appropriation structure from annual to continuing;
    - establish a state funded public transit capital program;
    - maintain transit funding in the Transportation Fund; and address locally dedicated revenue sources.

### ***Transportation Access Equity***

- Wisconsin does not have state programs to incentivize low-income housing near transit facilities.
- Wisconsin does not consider proximity of transit facilities when distributing Low-Income Housing Tax Credits.
- The 2018 report *Arrive Together: Transportation Access and Equity in Wisconsin* finds that “[public] transit investment [in Wisconsin] is urgently needed to address economic and workforce development issues, mitigate inequities and public health outcomes, improve environmental sustainability and more.”<sup>xxv</sup>

### ***Tailpipe Emissions Standards***

- No.

### ***Transportation and Land-Use Integration Policies***

- No.

### ***Complete Streets Law***

- In 2009, Wisconsin passed a complete streets law requiring all new highway construction to include walkways and bikeways.

### ***Freight Efficiency Plans and Goals***

- Wisconsin has not finalized freight efficiency plans or goals.

### ***Incentives for High-Efficiency Vehicles***

- Wisconsin does not provide incentives for purchasing high-efficiency vehicles, other than the 2016-2017 electric vehicle group buy program, REV UP, for the Nissan Leaf.<sup>xxvi</sup>
  - For that program, partnering utilities supported investments in electric charging stations and public awareness about electric vehicles.

### ***Targets for Vehicle Miles Traveled***

- No.

## **Appliance Efficiency Standards**

(score 0 out of 3)

- Wisconsin does not have appliance efficiency standards beyond the federal government’s requirements.

## **III. Conclusions**

With a total score of 16 out of 50 points, Wisconsin ranks 25th in clean energy, energy efficiency and climate-related policies, lagging half of U.S. states. As evident in the above summaries, Wisconsin has many opportunities to improve its ACEEE ranking and help meet the charge of Executive Order 38.

- 
- <sup>i</sup> American Council for an Energy-Efficient Economy (ACEEE). Climate Change Policy. <https://aceee.org/topics/climate-change-policy>
- <sup>ii</sup> ACEEE. Wisconsin. <https://database.aceee.org/state/wisconsin>
- <sup>iii</sup> ACEEE does not list many of these programs. The list is supplemented with programs under the Wisconsin Office of Energy Innovation. <https://psc.wi.gov/Pages/Programs/OEI/OEI%20Programs.aspx>
- <sup>iv</sup> Environmental Law and Policy Center. A Tale of Two States: Minnesota's Clean Energy Policies Outpace Wisconsin's. 2019. Pages 1-4. <https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u2196/Arrive%20Together%20Transportation%20Access%20and%20Equity%20in%20Wisconsin.pdf>
- <sup>v</sup> U.S. Energy Information Administration. Wisconsin State Energy Profile and Energy Estimates. Last updated April 2019. <https://www.eia.gov/state/?sid=WI>
- <sup>vi</sup> Wisconsin Public Service Commission. 2018 Renewable Portfolio Standard Report. Page 1. See "2018 Compliance" at <https://psc.wi.gov/Pages/Programs/RpsCompliance.aspx>.
- <sup>vii</sup> Environmental Law and Policy Center. Page 4.
- <sup>viii</sup> Wisconsin Public Service Commission. Page 3.
- <sup>ix</sup> Environmental Law and Policy Center. Page 6.
- <sup>x</sup> Ibid.
- <sup>xi</sup> DSIRE: NC Clean Energy Technology Center. Minnesota's Interconnection Standards. Last updated September 10, 2019. <https://programs.dsireusa.org/system/program/detail/951>
- <sup>xii</sup> Environmental Law and Policy Center. Page 6.
- <sup>xiii</sup> This list is supplemented with the Great Lakes Bioenergy Research Center and the Midwest Energy Research Consortium, identified in Wisconsin Academy of Sciences, Arts and Letters. Climate Forward: A New Roadmap for Wisconsin's Climate and Energy Future: 2017 Update. <https://www.wisconsinacademy.org/blog/climate-energy/climate-forward-2017-update>
- <sup>xiv</sup> Environmental Law and Policy Center. Page 7.
- <sup>xv</sup> DSIRE. Wisconsin Net Metering. Last updated November 30, 2018. <https://programs.dsireusa.org/system/program/detail/235>
- <sup>xvi</sup> Environmental Law and Policy Center. Page 7.
- <sup>xvii</sup> See 1) DSIRE. Wisconsin Net Metering. and 2) DSIRE. Minnesota Net Metering. Last updated March 18, 2018. <https://programs.dsireusa.org/system/program/detail/282>
- <sup>xviii</sup> Ibid.
- <sup>xix</sup> Ibid.
- <sup>xx</sup> Environmental Law and Policy Center. Page 7.
- <sup>xxi</sup> State Energy Analysis Tool. Wisconsin Climate and Energy Profile: Regulation and Policy. Georgetown Climate Center. <https://www.georgetownclimate.org/clean-energy/clean-energy-and-climate-data.html?state=WI#panel2-5>
- <sup>xxii</sup> Ibid.
- <sup>xxiii</sup> Wisconsin Department of Transportation. 2018-2019 Transportation Budget Trends. F-TR1: Modal Funding Trends, 2000-2019 (nominal dollars, millions). Page xi. <https://wisconsin.dot.gov/Documents/about-wisdot/performance/budget/trends2018-2019.pdf>
- <sup>xxiv</sup> Wisconsin Governor's Transportation Stakeholder Task Force. Public Transit Programs. January 2019. <https://wisconsin.dot.gov/Documents/about-wisdot/who-we-are/comm-couns/tstf/public-transit-programs.pdf> That document is in this list of meeting materials for the January 31, 2019, task force meeting: <https://wisconsin.dot.gov/Pages/about-wisdot/who-we-are/comm-couns/stakeholder-taskforce.aspx>
- <sup>xxv</sup> 1000 Friends of Wisconsin, et al. Arrive Together: Transportation Access and Equity in Wisconsin. 2018. Page 73. <https://www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u2196/Arrive%20Together%20Transportation%20Access%20and%20Equity%20in%20Wisconsin.pdf>
- <sup>xxvi</sup> Wisconsin Academy of Sciences, Arts and Letters. Page 16.