



Strategies for Climate Action in Wisconsin

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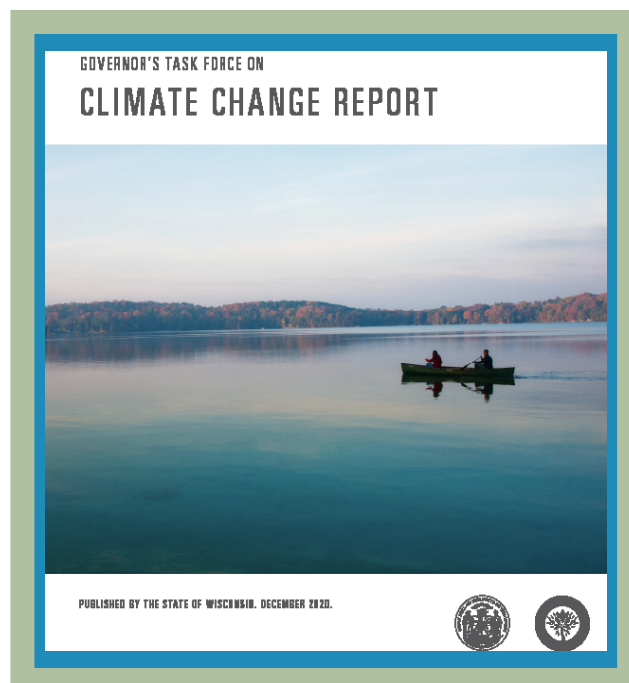
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Wisconsin is ready to lead on climate change. From decarbonizing our energy supply to storing carbon in our soils, we can play a meaningful role in tackling this global problem. At the same time, these efforts to curb climate change will make our communities more resilient and prepared to face the climate-related challenges that come our way. If we do this right – by taking bold and equitable climate action – we can rebuild a strong economy, make our communities healthier, and create a bright future where all our kids and grandkids can thrive.

Governor Evers is taking the need to tackle climate change seriously. Upon taking office, Evers joined the U.S. Climate Alliance, a group of 25 states committed to reducing greenhouse gas emissions. In August 2019, he signed Executive Order 38, committing Wisconsin to the goal of having all electricity consumed in the state be 100% carbon-free by 2050. He then signed Executive Order 52 in October 2019 to designate that a Task Force on Climate Change be created. Lieutenant Governor Barnes served as the chair of this Task Force, which was comprised of members from State agencies, lawmakers, environmental organizations, utilities, farmers and farm organizations, public health professionals, Native Nations, insurance, industry, and youth. Clean Wisconsin proudly served on the Governor’s Task Force on Climate Change. The Task Force was instructed to develop strategies for Wisconsin to mitigate and adapt to climate change, and to provide these recommendations to the Governor in a report.

The Task Force used an environmental justice lens in developing these recommendations, ensuring that the communities of color and low-income communities who are often most impacted by climate harms are centered in the discussion and solutions. Hearing from Wisconsin residents – about how climate change is impacting their lives, what concerns they have, and their ideas for solutions – was also highly valued and ingrained in the process. Through public listening sessions and written comments, over 1000 Wisconsin residents from nearly every county participated to show their support for climate solutions.

The final Governor’s Task Force on Climate Change Report is available in full here: https://climatechange.wi.gov/Documents/Final%20Report/USCA-WisconsinTaskForceonClimateChange_20201207-HighRes.pdf.



Taking bold climate action is critical for our health, economy, and equity.

Harms to our **health** from climate change include: heat-related illness, injuries and deaths from dangerous weather events, spread of infectious diseases, contaminated food and water, and mental health problems. By taking action on climate change, we can help prevent these negative outcomes. Moreover, some climate solutions are doubly beneficial – not only does getting around by walking and biking avoid emitting the greenhouse gases that drive these health harms, but the exercise also makes our bodies healthier.

Unfettered climate change will also cause incredible damage to our **economy**. From property damage due to extreme weather and floods to missed workdays from illness, our society will bear the cost of climate change. Taking bold climate action can help avoid these costly outcomes. Moreover, investing in a clean energy economy can create good jobs, include workforce development to train new and transitioning workers in sustainable industries, and give us a competitive edge as our state becomes an even more attractive place to live, work, and play. With Wisconsin residents and businesses struggling with the Covid-19 pandemic and economic fallout, investing in cost-saving solutions, which also benefit public health, has never been more important.

Climate change also raises grave concerns over **equity**. Low-income and Black, Indigenous, and People of Color (BIPOC) communities are disproportionately affected by environmental harms. Stories and lived experiences across Wisconsin communities, as well as countless studies, confirm this reality. Climate and racial justice are inextricably linked. It is crucial that the solutions we put forth for achieving a clean energy future simultaneously drive a strong and equitable economic recovery, and that those who are currently suffering the worst consequences of climate change have the opportunity to avoid those harms and partake in the benefits of a clean energy economy.

This report highlights a number of key strategies – and related Climate Change Task Force (CCTF) recommendations – that can help move Wisconsin forward on addressing climate change while building healthy communities and a healthy economy for all.




Saving Energy and Money


Energy efficiency is a crucial and cost-effective strategy for decreasing our energy demand and making Wisconsin's 100% carbon-free energy goal within reach. Efficiency also supports many clean energy jobs in our state and helps ameliorate the energy burden of vulnerable communities, both of which are crucial components of an equitable recovery from the Covid-19 pandemic.


Focus on Energy


Wisconsin already has a cost-effective, nationally respected, and successful energy efficiency and renewable resource program in place. It's called Focus on Energy. But by increasing funding and modernizing the program, we could do so much more to save energy and costs, create jobs, and meet our state's climate goals.


Focus on Energy:

 **Makes economic sense and helps struggling Wisconsin residents and businesses when they need it most.** Focus on Energy is cost-effective: Every dollar invested yields nearly \$5 in benefits for all ratepayers. Since 2011, Focus on Energy has delivered more than \$1 billion in net economic benefits.ⁱ

 **Creates jobs.** The program is good for our state's economy and local businesses. In 2019, clean energy businesses employed 76,000 Wisconsinites, with over 80% in energy efficiency specifically.ⁱⁱ

 **Has lots of room to grow.** Right now, there is more demand than resources in Focus, meaning there's lots of potential – in terms of energy and cost savings – left on the table. The current funding cap is arbitrary and hindering our ability to save money, create jobs, support our local economy, and build a healthy, sustainable future.

 **Can help usher in exciting new technology of the future.** Modernizing the program will help Wisconsin residents and businesses keep up with the times – employing smart technology to use electricity when it's cleanest and cheapest, and driving non-polluting electric cars.

 **Promotes equity and helps our neighbors who need it most.** Efficiency measures help ratepayers save money on their energy bills, which is especially important for low-income customers who spend a higher portion of their income on energy bills.



CCTF Recommendation #8: Expand Wisconsin's Focus on Energy funding
Increase funding, align with energy/carbon- reduction goals, transition to electric, provide education.



In the U.S the average energy burden of a low-income households is

3x

higher than that of non-low income households.



Compared with White Households

AVERAGE ENERGY BURDEN



 Black Households
43% higher



 Hispanic Households
20% higher



 Native American Households 45% higher

Age is also a factor



Older adults over 65 face a 36% higher energy burden than the average household.ⁱⁱⁱ



Homegrown Renewable Energy for All

With prices plummeting in recent years, renewable energy is now cost-competitive or favorable to fossil fuel-derived energy. Wisconsin sends, on average, more than \$12 billion out of the state each year to import fossil fuels (coal, natural gas, and petroleum). Instead, we could be focusing on homegrown renewable energy – like solar, wind, and biofuels – that keeps our money in state and helps Wisconsin communities thrive. In-state production of 100% clean energy would create 162,000 new jobs and save \$21 billion every year in avoided health damages from air pollution.^{IV} The large-scale renewables owned by utilities are a big part of the solution, but we also need to make sure that Wisconsin homes and businesses have more direct access to renewable energy.

Community Solar

Community solar, also known as shared solar, is a model in which participants buy a share of a solar farm and receive credits for the electricity that their share generates. Community solar programs provide greater access for several reasons:



Ownership: Renters who cannot impact decisions in their dwelling/residence can access community solar.



Geography: Those in shady or otherwise suboptimal locations for solar can participate in community solar.

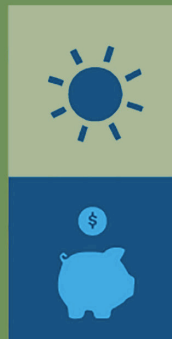


Economics: Participants avoid high upfront installation costs of an individually owned system while still accessing solar.

CCTF Recommendation #14:
Support community solar
Encourage utility buildout of community solar and review green tariff models; facilitate community solar/renewable energy sponsored by local communities and Tribes.

Community solar has lots of room to grow, as we can see from neighboring Minnesota whose community solar policy helped establish the state as a national leader. Today, Minnesota far outpaces Wisconsin with about 100 times the community solar capacity.^V

Buying into a shared solar array makes it possible for more Wisconsinites to power their homes and businesses with solar energy.



**CCTF Recommendation #49:
Allow third party renewable
financing (solar/energy genera-
tion)**

Clarify the ability of customers to utilize third party financing for energy generation projects.

Third-Party Solar Financing

Under the third-party solar model, the system is owned and financed by a third-party and the customer pays for the system over time through a power purchase agreement or lease. This makes going solar work for families and business who can't afford to pay the entire cost of the system upfront or entities like nonprofits and places of worship that can't take advantage of solar tax investment credits. 28 U.S. states, including the top 10 states in installed solar

capacity, have clarified that third-party ownership is legal.^{vi}The lack of clarity of the legal status of third-party financing in our state has hindered Wisconsinites from using this tool.

Low-Cost Debt Financing

While many of the strategies outlined in this report will ultimately yield both energy and cost savings (in addition to myriad other health, equity, and environmental benefits), upfront investment in green technologies and programs will be necessary in driving this clean energy transition. Given limited public funding available as our state recovers from the Covid-19 pandemic, we would do well to leverage all available sources of financing, including private capital. The green bank model has proven successful in using public funding to attract private investment. Given the existing models and success from 12 other U.S. states in driving over \$5 billion in clean energy investment^{vii}, as well as the timely opportunity to invest in a green economic recovery, we could move beyond the creation of a study committee, and instead take the bolder step of establishing a green bank in Wisconsin.

**CCTF Recommendation #10:
Support low-cost debt financing
of customer clean energy projects**

Maximize commercial property assessed clean energy (PACE) financing, provide on-bill financing for residential and governmental customers, explore a Wisconsin Green Bank.

Green Grant and Loan Program

Integrating clean economy considerations into our state's economic development corporation will help grow the renewable energy industry in Wisconsin, further driving down costs, spurring innovation, and creating good jobs.

**CCTF Recommendation #34: Create a Wisconsin Economic Development Corporation
Green Grant and Loan program**

To support Wisconsin businesses that focus on zero-waste, energy efficiency, green technology, and green businesses.

Transitioning Away from Fossil Fuels

Clearly we need to wean ourselves off fossil fuels in order to meet our state’s 100% carbon-free electricity goal. This transition will coincide with a boon for our state’s clean energy economy as we produce more home-grown energy in our communities. Moreover, we’ll avoid the negative health outcomes associated with both air pollution and climate change which disproportionately harm some groups more than others: elderly, children, pregnant women, immunocompromised people, people with chronic illnesses and allergies, the poor, and some communities of color^{viii}.

These are ambitious and achievable goals; goals the state’s major investor-owned utilities demonstrate they are on the path to achieve, with some utilities achieving their interim goals early and upgrading to more aggressive targets. Despite this demonstrated progress, getting there will require new policies and strategies. Meeting the interim 2030 goal would put Wisconsin squarely on a path to the Governor’s 100% carbon-free electricity by 2050 goal.

**CCTF Recommendation #13:
Set utility carbon-reduction goals**

Reduce net carbon emissions from the power sector by 60% by 2030 and by 100% by 2050 (compared to 2005 levels).

Wisconsin Investor-Owned Utility Voluntary Commitments to Electricity Decarbonization

Utility	2030 CO ₂ Reduction Goal (from 2005 levels)	2050 CO ₂ Reduction Goal
WEC Energy Group (We Energies & Wisconsin Public Service)	70%	Carbon neutral
Alliant Energy	50%	Net-zero CO ₂
Xcel Energy	80%	100% carbon-free
Madison Gas & Electric	40%	Net-Zero carbon

Strategies like avoiding building infrastructure extending the life of fossil fuels, exploring financial strategies for early coal retirements, and developing modern rate design that helps incentivize efficiency and clean energy are other important tools we can use in transitioning to a healthy, carbon-free future.

CCTF Recommendation #50: Develop strategies for the cost-effective early closure and reduced use of coal facilities

Explore financing and return-on-investment options.

CCTF Recommendation #47: Avoid all new fossil fuel infrastructure

Avoid new fossil fuel infrastructure for electricity generation, new natural gas plants, and new pipelines for transporting fossil fuels through Wisconsin.

CCTF Recommendation #53: Modernize rate design

Review and update current rate design principles, explore innovative rate design and tariffs, and explore options to incentivize clean energy and energy efficiency while decreasing disproportionate impacts on low-income communities.



Clean and Equitable Transportation





Investment, education, and promotion of electric vehicles, walking and biking trails, and public transit will greatly reduce our state's automobile emissions while encouraging healthy lifestyles.

Electric Vehicles (EVs)

CCTF Recommendation #19: Support hybrid-electric vehicles, electric vehicles, and infrastructure

Develop a statewide electric transportation plan that includes input from key stakeholders, ensures rapid development of cost-effective charging infrastructure and incentives, increases EV adoption, and places a special focus on underserved areas such as rural and lower-income urban areas.

Compared to gasoline-powered vehicles, electric vehicles are:

-  **Cheaper to operate.** Fueling a car with electricity instead of gasoline saves over 30% in costs.^{ix}
-  **Less carbon-intensive and polluting.** Electricity is a less carbon-intensive fuel than gasoline or diesel already in Wisconsin and it will be getting cleaner each year as the grid transitions to carbon-free electricity. Moreover, EVs aren't emitting pollutants like NOx and SOx from a tailpipe which contribute to smog and negative health outcomes.

Limited charging infrastructure is one key factor in why the market share of electric vehicles in Wisconsin is so low – less than 1%. Meanwhile, California leads in the U.S. where electric vehicles represent over 7% of sales. Electric sales are growing in Wisconsin – about 18% from 2017-2018 – but over that same time period we saw bigger leaps by our neighbors – 87% in Minnesota and 94% in Illinois.

Active Transportation (Walking and Biking)

While many Wisconsinites choose to drive, many would make different decisions if they were confident they could walk or bike where they need to go safely and conveniently. Investing in paths and programs that encourage active transportation can take cars (and the pollution spewing out of their tailpipes) off the road and improve our physical and mental health at the same time. It also makes these cheaper modes of transportation easier to use for those who can't afford a car. Our current transportation policies are leaving complementary federal funds on the table. For example, prohibition of eminent domain is holding up 17 projects across the state while excluding us from federal funds that require bicycle and pedestrian infrastructure. Similarly, allocating a greater percentage of TAP funding to biking and walking projects would leverage more federal funds in this cost-sharing program.

Public Transit

Public transit, such as buses and trains, helps greater numbers of people to move around efficiently. Reliable and convenient transit options also allow Wisconsinites to travel car-free, cutting pollution and costs. Public transit is a critical piece of an equitable and inclusive transportation system, providing mobility access to people experiencing economic constraints, people living with physical or other disabilities, youth and the elderly, and other experiences that make driving or active transportation challenging or impossible. Long-distance public transit can also help our state access economic opportunities, such as by better connecting our Wisconsin communities and attracting tourists from neighboring states.

CCTF Recommendation #20: Safe, clean, and complete streets

Incorporate Complete Streets designs in state roadway projects, restore eminent domain acquisition for pedestrian and bike trails, increase funding for the Transportation Alternatives Program (TAP) and direct a portion of funds to under-resourced communities and environmental justice communities, and fund bike programs and infrastructure in low-income communities.

CCTF Recommendation #18: Promote public transit and green public transportation

Increase public transit funding, allow municipalities and regions to coordinate and fund local transportation systems, develop regional public transit plans, and promote high-speed rail and long-distance public transit.



Safe and Modern Buildings

All Wisconsinites deserve to have safe and efficient buildings where they can live and work. When our buildings are inefficient, we're wasting energy and money. Living in inefficient housing makes it harder for people experiencing economic challenges to adequately heat and cool their homes which can be uncomfortable at best and life-threatening at worst.

Wisconsin is currently relying on outdated energy codes: the 2015 International Energy Conservation Code (IECC) with amendments for commercial buildings and the 2009 IECC with amendments for residential buildings. Adopting the most up-to-date codes, including requirements for electric vehicle-ready buildings, will raise the bar in one of Wisconsin's largest areas of energy use.



CCTF Recommendation #12:
Update state commercial and residential building energy codes
Including EV charging.

Natural Climate Solutions

Wisconsin's farms and forests are engines of our state's economy, and they can play an important role in responding to climate change. Wisconsin farms cover 14 million acres of land and forests cover another 16 million, together accounting for over 85% of Wisconsin's area. We can implement climate solutions that achieve both economic and environmental benefits, meet producer needs, strengthen struggling communities, and benefit all Wisconsin residents.

Agriculture

Wisconsin farmers understand that the same practices that store carbon in soil also improve soil health, water quality, and resilience. These factors are all crucial for growing healthy crops and being able to weather the floods and extreme weather they are increasingly facing due to climate change. Through education and implementing improved management practices, farmland can act as a natural climate sink. Creating a carbon farming program can reward these smart practices by providing financial incentives like subsidies, access to carbon markets, and cost-sharing programs.

CCTF Recommendation #22: Pay farmers to increase soil carbon storage in agricultural and working lands

Establish a "carbon farmers" program to develop methods for measuring how much carbon is stored through agricultural management practices and provide tax incentives or subsidies; increase incentives for cover crops, reduced tillage, and crop rotation; increase funding and technical support for carbon storage programs and practices; increase nutrient and manure management support to reduce other potent greenhouse gas (nitrous oxide and methane) emissions.

CCTF Recommendation #21: Support farmer-led watershed groups

Increase funding for farmer-led watershed groups promoting conservation practices.

Rural and Urban Forests

Not only do forests serve as great carbon sinks, but they also provide a number of ecosystem and health benefits. Trees can help our communities weather storms and flooding while reducing the heat island effect in urban areas. Lower-income areas of cities often enjoy less tree cover, which is a problem because trees can help keep buildings at safer temperatures during extreme heat events and are also associated with lower crime rates^X.

CCTF Recommendation #43: Pursue reforestation in rural areas

Encourage tree planting, prioritize afforestation on public lands, create a state forest with the primary goal of carbon storage.

CCTF Recommendation #44: Encourage tree planting in urban areas

Implement tree-planting in urban communities, assist communities in participating in carbon credit programs, and develop urban wood programs.

Conservation in both rural and urban settings also provides many opportunities for workforce training and green jobs.

CCTF Recommendation #33: Create new jobs through conservation and prepare individuals for work within the green energy sector

Create a green jobs corps pilot program in Milwaukee, create an AmeriCorps-like program to train and deploy workers to provide assistance restoring and rebuilding natural lands in both rural and urban areas, and create a state trails and parks job program for individuals transitioning out of the correctional system.



Environmental Justice

We know that low-income and BIPOC communities are currently bearing the worst consequences of the climate crisis. We need to act intentionally to ensure all Wisconsinites are treated equitably in addressing climate challenges and benefiting from solutions.

Creating an Office of Environmental Justice within state government will ensure that the development and implementation of policies appropriately incorporates the needs of communities that feel disproportionate of the climate change.

CCTF Recommendation #1: Create an Office of Environmental Justice

Tasked with collaborating across state agencies and engaging with Black, Indigenous and communities of color, low-income communities, and environmental justice advocates to design climate policies that reduce emissions and pollutants and address the cumulative and deadly impacts of their concentration within these communities.



Carbon Pricing

Decision-makers weigh the costs associated with different choices about energy and infrastructure. However, right now those numbers don't represent the full cost to society. When a cost doesn't include particular impacts that are associated with a product or service, that means there's an "externality." For example, when considering building a gas power plant, the costs that are analyzed don't include the price tag of the greenhouse gases that it will emit, so decisions are not including the costs we all collectively pay for the impacts of those emissions through increased health costs, lost work days, crop damage, flood damage, increased insurance rates, and in many other ways.

Considering a social cost of carbon is a way to account for the costs to society that those greenhouse gas emissions cause. By reviewing the true cost of a proposed energy project, decision-makers can make an informed choice based on a more accurate and comprehensive picture of the economics.

CCTF Recommendation #16: Require analysis on the social cost of carbon

Require the PSC to consider the social cost of carbon in its analysis in decisions about construction of new utility-scale energy generation.



State Leadership

As Wisconsin moves to tackle climate change, state government has an opportunity to lead – to demonstrate how to deploy climate solutions across government agencies, and to be a catalyst for clean energy across the state.

We can ensure the state is acting as a leader in its own operations by making investments in renewable energy and energy efficiency at state buildings, converting fleets to electric vehicles, and implementing procurement policies that prioritize sustainability.

CCTF Recommendation #11: State lead by example

Wisconsin state agencies and decision-makers should set a strong example by taking steps to reduce GHG emissions within the State's asset portfolio through energy and water conservation, waste management, energy production, building efficiency, transportation use, procurement policies, and guidance for local governmental units.



Lieutenant Governor Mandela Barnes, Chair of Governor Evers' Task Force on Climate Change



End Notes:

- i. <https://focusonenergy.com/about>
- ii. <https://www.cleanjobsmidwest.com/state/wisconsin>
- iii. <https://www.aceee.org/research-report/u2006>
- iv. https://www.cows.org/_data/documents/1982.pdf
- v. https://madison.com/wsj/news/local/environment/mge-expands-community-solar-program-with-9m-middleton-airport-project/article_434393b3-7626-5bcd-879c-40809a3c7233.html
- vi. <https://ilsr.org/states-agree-third-party-ownership-enables-distributed-solar-but-whats-next/>
- vii. https://coalitionforgreencapital.com/wp-content/uploads/4451_CGC_MN_Report-Web-2.pdf
- viii. <https://ghi.wisc.edu/wp-content/uploads/sites/168/2020/10/Medical-Alert-Climate-Change-is-Harming-Our-Health-in-Wisconsin.pdf>
- ix. Assumes \$0.12 per kilowatt-hour for electricity (Wisconsin's average retail price is \$0.1058 per kilowatt-hour) and \$2 per gallon for gasoline. <https://www.betterenergy.org/>
- x. <https://forestrynews.blogs.govdelivery.com/2018/10/11/reduce-crime-and-violence-with-trees-in-your-neighborhood/>