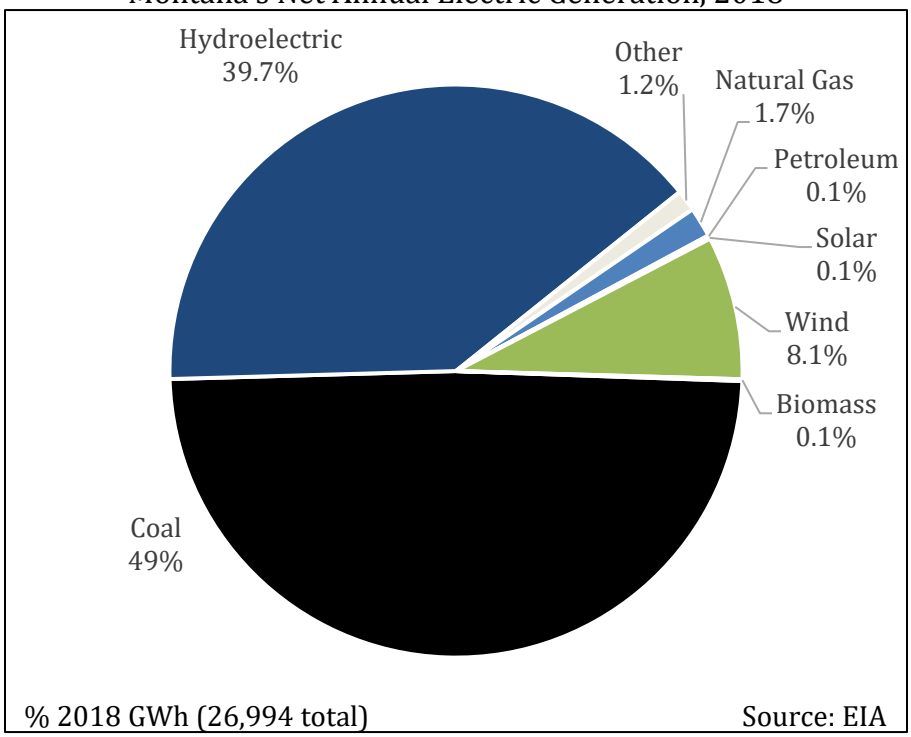
State Brief: Montana

BACKGROUND

Coal accounted for just under half of Montana's net electricity generation in 2018. This is due to the state's vast coal resources: one quarter of the nation's coal reserves are located within the state. In recent years, demand for coal has been falling as a result of new regulatory pressures, declining exports, and the rise of inexpensive natural gas and renewable energy resources. Hydroelectricity is the state's second largest resource for electricity generation, compromising over a third of the state's energy mix. In 2017, Montana was the fifth largest producer of hydropower in the U.S. Construction on the Gordon Butte Pumped Hydro Storage Facility received regulatory approval in 2016 and will support the growth of the state's renewable energy industry.

Montana's Net Annual Electric Generation, 2018



% 2018 GWh (26,994 total) Source: EIA

The Treasure State has taken strides in capitalizing upon its significant wind energy potential. Generation from wind has increased steadily over the decade, rising from 3.1% in 2010 to 8.1% in 2018. While generation from wind has leveled out since, wind development is expected to continue to grow. Proponents of wind development are advocating to end a Bonneville Power Administration (BPA) policy that imposes a transmission fee on electricity originating from Montana's wind farms. Montana has notable solar potential. While most solar development to-date has been customer-sited, several companies have proposed utility-scale solar installations.

A 2020 report by the National Association of State Energy Officials and the Energy Futures Initiative found that Montana has a high concentration of energy employment, with 15,530 traditional energy workers statewide. Of these traditional energy workers, 1,376 are in electric power generation, 5,506 are in fuels, and 8,648 are in transmission, distribution, and storage. The traditional energy sector in Montana accounts for 3.2% of total state employment (compared to 2.3% of national employment). Montana has an additional 8,838 jobs in energy efficiency and 6,226 jobs in motor vehicles.

Utilities in Montana are regulated by the five-member Public Service Commission (PSC). Commissioners are selected via public election, and all members of the PSC are currently affiliated with the Republican Party. Republicans control both chambers of the state's legislature, while Democratic Governor Steve Bullock heads the executive branch.

POLICY STRENGTHS AND OPPORTUNITIES

The National Renewable Energy Laboratory (NREL) developed the notion of "policy stacking,"[1] an important framework for policymakers to consider. The basic idea behind policy stacking is that there is an interdependency and sequencing of state policy that, when done effectively, can yield greater market certainty, private sector investment, and likelihood of achieving stated public policy objectives.

[1] V.A. Krasko and E. Doris, *National Renewable Energy Laboratory*, 2012. Strategic Sequencing for State Distributed PV Policies: A Quantitative Analysis of Policy Impacts and Interactions. http://www.nrel.gov/docs/fy13osti/56428.pdf.

In theory, but not always in practice, clean energy policies can be categorized into one of three tiers of the policy stack. Tier 1, market preparation policies, remove technical, legal, regulatory, and infrastructure-related barriers to clean energy technology adoption. Tier 2, market creation policies, create a market and/or signal state support for clean energy technologies. Tier 3, market expansion policies, create incentives and other programs to expand an existing clean energy market by encouraging or facilitating technology uptake by additional market participants.

For example, before financial incentives for combined heat and power (CHP) will be successful, two key considerations for deployment are having clear interconnection standards and favorable stand-by rates for customers who opt to add CHP. In this example, states should adopt policies to address interconnection and stand-by rates before adopting financial incentive programs.

GRID MODERNIZATION

New digital technologies have enabled utilities to better manage the grid and provide opportunities for consumers to customize their services to fit their priorities. These technologies allow a two-way flow of information between the electric grid and grid operators and between utilities and their customers.

Emerging technologies improve system reliability and resiliency by enabling better tracking and management of resources. These technologies allow grid operators to incorporate central and distributed energy resources, energy storage technologies, electric vehicles, and assist in addressing the challenges associated with planning, congestion, asset utilization, and energy and system efficiency.

Grid modernization will require a suite of state and federal policy changes to support advancements in grid technologies, grid management, and utility regulation.

In the most recent (2018) Grid Modernization Index, Montana ranked 50th for overall grid modernization efforts. The state does not have a grid modernization plan, nor does the state energy plan address resilience or modernization of grid infrastructure. Montana participated in the five-year Pacific Northwest Smart Grid Demonstration Project between 2010 and 2014. The $179 million, multi-state project co-funded by the Department of Energy (DOE) "was one of the largest and most comprehensive demonstrations of electricity grid modernization ever completed." The state's largest investor-owned utility (IOU), NorthWestern Energy, worked in conjunction with the BPA on several projects analyzing the grid impacts and benefits of smart technology deployments. The demonstration project's report produced several recommendations, but comprehensive grid modernization policy has yet to be developed. However, the state took steps in 2019 to improve smart meter deployment and customer data access.

There are supportive policies that Montana's policymakers could adopt to begin in-state modernization efforts.

1. Develop a grid modernization strategy through a stakeholder process. Alternatively, states might decide to require that utilities develop and propose a ten-year grid modernization plan to the public utilities commission within a specified timeframe. Utilities would then be required to implement that plan within another specified timeframe. Strategies and/or plans should outline a clear set of grid modernization goals and describe methods to measure, report, verify, and enforce progress towards those goals.

2. Require that utilities' electricity supply resource plans (ESRPs) include plans to enhance cybersecurity, integrate distributed energy resources (including electric vehicles and energy storage), increase smart meter deployment and demand response and/or demand-side management (DSM) programs, and measure and report on the results of grid modernization efforts. Montana does not have a statewide policy requiring smart meters. Enacted in 2019, HB 267 directs the PSC to consider whether advanced meter customers should be afforded an opt-out provision. Currently, most smart meters deployed in the state are owned by electric cooperatives.

3. Montana is working to clarify state policies governing customer data access and privacy protections. Policymakers could develop legislation or rules that, at minimum, do the following: clarify who owns the energy data associated with consumer energy usage; protect customer privacy; outline the process for allowing direct access to data by third parties; and promote access to the highest resolution of data possible. Montana took steps toward improving customer data access in 2019 with the passage of HB 267, which requires utilities to disclose anonymous aggregated energy data use and make individual customer data available upon request. Otherwise,

the bill declares consumer data to be confidential. The state could establish customer data access to energy data through the Green Button program, for example.

ENERGY STORAGE

Energy storage offers a unique opportunity to dynamically manage supply and demand while maximizing the value of grid resources. By deploying storage in strategic locations, utilities can more effectively manage their energy portfolios. First, storage provides management of intermittent demand – helping to flatten peak demand requirements for the utility. Second, the responsiveness of energy storage can allow the utility to implement voltage regulation and other ancillary services, which are useful for improving system efficiency. Third, storage can dispatch power to better integrate intermittent resources like renewable energy.

The flexibility of battery storage, combined with advanced metering infrastructure, allows customers to control, for instance, how and when they use energy from the grid or from solar panels installed on their home or business. In most cases, this can provide greater cost savings than standalone solar systems. Combined with time-varying rates or real-time pricing programs, state policy can further support customer choice and open a new market for energy services. Prices that better reflect the time-varying and location-dependent costs of producing and delivering electricity can lead to a number of economic and environmental gains.

Two major trends have enabled increased deployment of energy storage: declining costs and technological advances. State policy can help maximize these benefits by 1) establishing a framework for easy integration of energy storage into the grid and 2) establishing a marketplace that monetizes the benefits of energy storage for cost effective investment.

Montana does not have any polices to support energy storage development. There are several opportunities for developing supportive state policies:

1. Amend existing interconnection policies to ensure that storage can connect to the grid through a transparent and simple process. The Interstate Renewable Energy Council (IREC) has produced a series of interconnection protocols that states can easily adopt. The state could establish best practices for interconnection in statute, or legislation could provide an instruction to utilities to implement these best practices.

2. Instruct utilities to evaluate the value of energy storage in multiple strategic locations across the utility system and consider a requirement to deploy storage where it will be cost effective or identify the price point at which it will become cost effective.

3. Require the inclusion of energy storage as a critical piece of the energy system as both a demand and supply management resource. Some states have required that utilities evaluate the cost effectiveness of non-wires alternatives (NWAs) to large transmission and generation investments. Alternatively, states might want to require that utilities develop a distribution investment plan that identifies the locations on the distribution system where energy storage or other distributed resources would offer the greatest value.

4. Consider creating a mandatory energy storage procurement target or requirement for energy storage with a documented process for periodic review of progress towards that goal. Procurement targets can limit the amount of utility owned storage to be procured; require that a certain amount of storage be targeted to low-income customers; and create carve-outs for specific amounts of storage to be procured at the transmission, distribution, and customer levels. Procurement targets can jump-start market creation, spur fast learning, and guide the development of a regulatory framework.

5. Finance and incentivize energy storage for customers and utilities. Incentives could enable customers to use storage to manage their electric load and store locally produced renewable energy. Incentives in the form of rebates, grants, and tax credits can provide a bridge to scalable deployment for storage. Incentives can be designed to decline as storage values become more readily monetized and/or as the cost of storage decreases. Policymakers could allow utilities that provide incentives to customers to recover the costs of installing smart meters. This would enable dynamic and time-varying energy management from multiple distributed battery systems. This should signal to customers the value of leveraging storage while better aligning customer costs with system costs. Financing energy storage installations for commercial customers could help reduce their

demand charges. Policymakers might want to start first with a policy that provides grants to pilot projects. Policy might also target solar system owners. Financial incentives should be designed to ensure that the state will meet other goals including emissions and peak demand reductions, and equitable access to clean energy.

MAINSTREAMING RENEWABLES

As the renewable energy industry matured, technology improved, and global production of generating equipment increased. Renewable energy is increasingly seen as the least cost, and lowest risk form of energy (excluding energy efficiency). A 2019 Bloomberg New Energy Finance report predicts that renewable resources will generate at least 60% of total global electricity and 43% of U.S. electricity by 2050. With increased deployment, utilities are learning more about how to integrate renewables effectively, investors are becoming more comfortable with the technologies, and building code officials are recognizing common standards and best practices. For these reasons, it is in the interest of policymakers to ensure that their states are well positioned to benefit from the transition to clean energy resources.

Montana has been working on developing its renewable resources. In June 2018, BPA in conjunction with the Governor's Office released the Montana Renewable Development Action Plan, which identifies barriers to expanding the renewable market by focusing on transmission issues (especially related to Colstrip retirements), exporting renewable energy, and regional coordination with Pacific Northwestern states. To reduce barriers to customer and utility participation in the renewable energy market, Montana's policymakers might consider several policy options.

Customer-Oriented Policies

1. Interconnection, Net Metering, and Streamlined Permitting – In general, customers want a clear, streamlined, affordable, and predictable process for connecting renewable energy systems to the grid. To ensure this, policymakers could consider adopting IREC's model interconnection procedures and removing net metering system size limitations. Allowing aggregated net metering would be especially beneficial to the state's agricultural operations. Other applications for aggregated net metering include commercial properties and public entities like state and local governments, universities, and schools. Enacted in 2017, HB 219 directed public utilities to submit a cost-benefit study on distributed generation to the PSC. NorthWestern submitted their cost-benefit analysis in March 2018. The utility concluded that net metering participants were being over-compensated. Legislation might direct the PSC to undertake an independent review of the value of distributed resources that accounts for a wider range of costs and benefits that distributed energy projects provide to the grid. The state might also consider establishing either statewide standards for streamlined permitting processes, or resources to support local governments that voluntarily implement a streamlined program, as Helena has done. State incentives, such as tax credits, financial incentives, or loans can be tied to systems that are established within a designated streamlined permitting jurisdiction.

2. Shared Renewables – Due to building and property attributes and ownership issues, many customers are unable to install renewable energy technologies where they live or work. Allowing shared, or community, renewable energy projects addresses these barriers. These projects have multiple owners or subscribers who pay for a portion of the project or the generation provided by the system. Montana's Renewable Resource Standard requires that utilities purchase both the renewable energy credits (RECs) and the electricity output from community projects totaling at least 75 megawatts (MW) in nameplate capacity. At least five electric cooperatives have installed or are planning to install shared solar projects in the state. The Montana Solar Community Project is a partnership between the Montana Energy Office and DOE's SunShot Initiative to expand community-scale solar developments throughout the state. Additionally, Northwestern plans to add 20 MW of capacity from a community project in Billings. To enhance participation in shared projects, policymakers could increase and extend the shared renewables carve-out and adopt a virtual net metering policy. Virtual net metering allows a customer to receive credits from a shared system as if the generation were on site. Virtual net metering is different from a power purchase agreement (PPA), which pays the customer for the proportion of power they produce. Because it is treated as a credit on the customer's bill, the customer can avoid the tax implications of a PPA payment - which can adversely affect the economics of the system (and may come as a surprise to the participant). Additionally, expanding available tax credits could incentivize the development of community-based renewable energy projects.

Low credit ratings often deter participation in renewable energy markets; this can affect low- and moderate-income (LMI) households' adoption of renewable energy solutions. Supportive policies for shared renewables can be designed to encourage participation by LMI households; this can increase adoption of renewable technologies and reduce energy costs. Low-income participation can be encouraged either through a percentage mandate for the overall annual contracted capacity, or by offering a higher rate of payment for the portion of shared solar capacity attributed to low-income customers. States that have a shared renewable program may want to coordinate this program with implementation of the federal Weatherization Assistance Program to provide recipients of assistance with participation in a shared renewable system.

There are several additional policy options that Montana might consider to promote renewable energy uptake by LMI consumers. Generally, successful state policies should be tailored to these customers, be cost-effective and financially sustainable, have measurable performance indicators, and be flexible enough to allow later changes in design.

3. Corporate Procurement – Many Fortune 100 and 500 companies have established either climate goals or commitments to purchase renewable energy. Over the last five years, over 20 gigawatts (GW) of renewable contracts have been announced by corporate entities. This is leading policymakers to provide additional avenues for businesses to procure renewable energy. Montana's policy allows companies to purchase RECs,[2] access renewable energy through the wholesale market, and develop or lease onsite renewable energy projects. To improve corporate access to renewable resources, the state might consider developing a green tariff for commercial customers, allowing companies to enter into onsite third-party PPAs, or enacting a policy that allows for greater retail choice in selecting an electricity provider. State policy might be designed to meet the Corporate Renewable Energy Buyers' Principles. In addition, it is prudent to incorporate corporate renewable purchase commitments into the ESRPs that utilities submit to regulators to plan for resource needs over multiple decades. By integrating these renewable purchase commitments into the resource planning process, regulators can avoid over-building resources and stranding generation assets.

Utility-Oriented Policies

Some states have created programs that aim to reduce greenhouse gas (GHG) emissions and increase utility investments in clean energy resources. Montana's RPS requires IOUs and competitive electricity suppliers to provide 15% of their electricity from renewable sources by 2015 and each year thereafter. Some cities have taken the lead in increasing their clean energy usage – Missoula was the first city in Montana committed to a goal of 100% clean electricity by 2030.

To increase utility adoption of clean energy technologies, Montana's policymakers might consider the following:

1. Accelerating and Amending Renewable Portfolio Standards – One of the oldest and most successful advanced energy policy tools, renewable portfolio standards (RPSs) usually set a target for a specific percentage of renewable electric generation to be achieved by a specific date. While these policies have various target dates and percentages (for example 15% by 2015), states can revisit existing policies to increase targets and extend target dates to spur the development of renewable resources and save ratepayers money. States might also add one or more carve-outs to further incentivize the development of distributed generation.

2. Clean Peak Standards (CPS) – Clean Peak Standards aim to increase the share of clean energy resources used to meet peak demand and decrease energy bills over the long-term by reducing peak demand in the hours when energy costs are highest. These objectives can be met through different policy options, including: planning and procurement that focuses on peak demand; a moratorium on the construction of new peaking units or a phase out of existing units; incentives – including carve-outs in states with RPSs – for clean energy resources delivered during peak times; and/or adopting a new clean peak standard that sets a target for clean energy deliveries during peak times.

In combination, these initiatives can increase available clean energy for dispatch during peak hours, reduce peak demand, and increase efficiency, all while reducing energy bills for customers.

[2] Customers of NorthWestern Energy can also take advantage of the state mandated E+Green program, in which customers can purchase 100 kilowatt hour (kWh) blocks of renewable energy directly from the utility.

PATHWAYS TO A LOW CARBON FUTURE

The international scientific community has determined that steep and rapid reductions in global greenhouse gas (GHG) emissions are needed to avoid the worst impacts of global warming and climate change. Federal and state policy interventions are necessary to transform our energy systems and rapidly reduce GHG emissions in the U.S. In general, effective policies will:

1) Establish performance standards and place enforceable limits on carbon pollution;
2) Provide financial incentives for individuals, businesses, and industry to choose clean energy and greatly improve energy efficiency;
3) Spur public and private investment in clean energy infrastructure, including investment in advanced transportation systems for the movement of people and goods; and
4) Provide funding for research, development, and demonstration of technologies that will underpin the de-carbonization of the U.S. economy.

On July 1, 2019, Governor Bullock issued Executive Order 8-2019, creating the Montana Climate Solutions Council and joining the U.S. Climate Alliance. The Council is tasked with developing a Climate Solutions Plan that provides recommendations and strategies aimed at preparing Montanans for climate impacts; reducing greenhouse gas emissions—including achieving an interim goal of net greenhouse gas neutrality for average annual electric loads in the state by no later than 2035 and a goal of net greenhouse gas neutrality economy-wide at a date to be determined by the Council; advancing the research, development, and commercialization of new technologies necessary to meet these goals; and assisting communities impacted by the transition to clean energy. Montana's policymakers might consider the following:

1. GHG Emissions Monitoring and Reporting – To effectively implement policies that reduce emissions, a mandatory system for monitoring, reporting, and verifying GHG emissions must be put in place. While the U.S. EPA has GHG reporting requirements, the federal reporting requirements focus on major industrial sources, leaving significant gaps in the information states need to fully understand their emissions profile. Policymakers might consider legislation similar to Colorado's SB19-096, which requires annual GHG reporting and establishes emissions baselines from which to measure progress.

2. Cap-and-Trade / Cap-and-Invest – These policies place enforceable limits on carbon emissions that cannot be exceeded by regulated entities without penalty. Emissions allowances are allocated or sold to companies by the state and sources must hold an allowance for each ton of carbon they emit in a given year. Emissions caps and available allowances are reduced every year, requiring that industries reduce their emissions or pay higher market prices for available allowances. States might choose to invest the revenue associated with emissions allowances in renewable energy, public transportation, zero-emission vehicles, environmental restoration, sustainable agriculture, recycling, and other actions.

   States might consider joining an existing program like the Western Climate Initiative (WCI) or the Regional Greenhouse Gas Initiative (RGGI), as joining an established network can remove administrative barriers to entry.

3. Carbon Tax – Carbon taxes impose a price on each ton of carbon emitted and are levied on the purchase and use of fossil fuels by business and industry. That cost is subsequently reflected in consumer prices. If carbon taxes are levied at a high rate, they will discourage the use of GHG emitting resources and technologies, encouraging a market switch to new technology. Alternatively, carbon taxes can be set at a lower rate, which will have a limited impact on market behavior, but the revenue can be substantial and that revenue can be invested in energy efficiency and emission reduction technologies which will result in lower emissions. States considering this option might examine British Columbia's existing tax structure or the federal proposals from the Citizen's Climate Lobby and the Climate Leadership Council.

4. Emissions Performance Standards – Transportation sources now emit more GHGs than any other sector, and rapid reductions from all types of vehicles, engines, and equipment is critical to achieving carbon reduction goals. The Low Carbon Fuel Standard (LCFS) implemented by both Oregon and California is another example of a flexible, market-based approach to regulating carbon emissions at the state level. LCFSs regulate the carbon intensity of transportation fuel in order to reduce the use of petroleum-based fuels and promote investment in

low-carbon options (electrification, biofuels, hydrogen, etc.). The market mechanism LCFSs use is a crediting system where each fuel type is assigned a carbon intensity (CI) score. The allowable CI score is decreased yearly, requiring a switch to lower CI fuels. Entities who provide fuel below the regulated CI score earn credits. These credits can be sold to providers who operate at a deficit (above the mandated CI score), creating a market incentive for investment in cleaner fuels

ELECTRIFICATION OF THE TRANSPORTATION SECTOR

Bloomberg New Energy Finance estimates that 58% of all new passenger vehicle sales will be electric by 2040 and that price parity with conventional vehicles will be met for most segments in the mid-2020s. Therefore, a key part of building a modernized grid involves designing infrastructure that will facilitate easy connection of electric vehicles (EVs) to the grid. One of the most important barriers to increased adoption of EVs is the consumer's awareness of the availability of EV charging stations. Ultimately, drivers want to be sure that their car will get them where they need to go. Another important barrier to increased adoption of EVs is their higher up-front cost as compared to similar conventionally fueled vehicles. The good news is that both supportive policies for developing charging infrastructure and technological advancements have eased range anxiety.

In December 2019, Governor Bullock signed the revised Intermountain West EV Corridor Memorandum of Understanding (MOU).[3] The mutual intention of the signatories (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming) is to update their Regional Electric Vehicle Plan for the West (REV West Plan) based on progress to date. Under the MOU, the signatory states agree to create best practices and procedures that will enhance EV adoption; create voluntary minimum standards for EV charging stations; identify and develop opportunities to incorporate EV charging station infrastructure into planning and development processes; encourage EV manufacturers to stock and market a wide variety of EVs in the states; and identify, respond to, and where possible, collaborate on funding opportunities to support the development of the REV West Plan.

There are additional opportunities to expand the market for EVs in Montana:

1. EV and EV Supply Equipment (EVSE) Financing and Financial Incentives – Providing additional financial incentives and innovative financing options can increase market penetration of EVs. Sales, property, and income tax credits are some of the simplest methods for addressing high up-front costs of EVs and EV supply equipment (EVSE). While sales tax credits are typically applied at the time of purchase, property and income tax credits may do less to address upfront cost barriers as receipt of the credit is typically removed in time from the purchase.[4] States have adopted other financial incentives including low-interest loans, grants, vouchers and rebates. A handful of states qualify EVSE under their property assessed clean energy (PACE) programs. A simple solution is to increase and expand existing tax credits to incentivize commercial, publicly available charging stations. The State of Montana currently does not offer incentives for citizens to purchase EVs or EVSE. However, the state offers a tax credit for converting vehicles to operate on alternative fuels.

2. Charging Infrastructure Plan – Locating charging infrastructure is different from locating conventional fueling stations. While some drivers will need to charge more quickly, others will refuel when they are parked for longer periods of time, for example when shopping, eating at a restaurant, or going to work. Charging infrastructure plans should attempt to pair the appropriate level of charging (level 2 or direct current fast charging) with a reasonable amount of time a person will be at that location. Legislation could direct a state agency to develop an infrastructure plan through a stakeholder process. States with existing registration fees for EVs could use a portion of this revenue to fund charging infrastructure development efforts, as Washington has done.

3. Parking Infrastructure Requirements – In tandem with the development of a statewide plan, legislation could set requirements for EV parking infrastructure. Some states have adopted permitting standards for parking lots, requiring, for instance, that for every 100 parking spaces, there must be at least one EV charging space. Legislation could also incentivize utilities to develop make-ready locations. These locations supply power to the point where a utility or third-party developer might install an EV charging station. Montana's statewide building energy code could be updated to include requirements for EV charging infrastructure.

[3] Governor Bullock signed the original Intermountain West EV Corridor Memorandum of Understanding (MOU) in 2017.

[4] A study by the Congressional Budget Office however suggests that tax credits are important tools for ensuring increased adoption of alternative-fueled vehicles.

NEWS

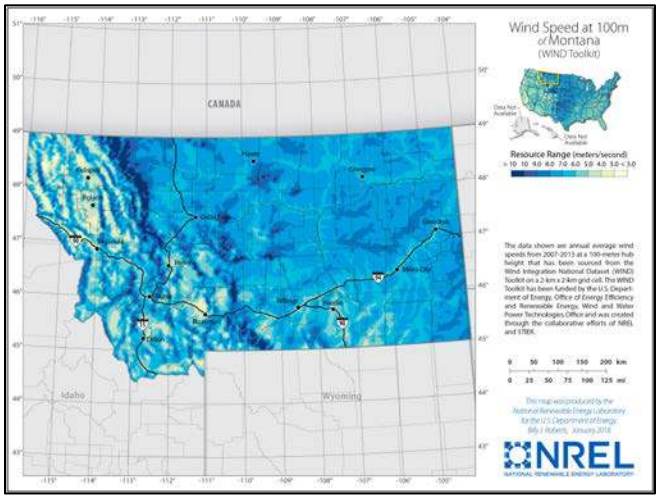
- August 27, 2020: MSU Engineering Students Honored at International Design Competition
- August 4, 2020: Mortonson Starts Turbine Tower Work at Pacificorp Wind Farm in Montana
- June 26, 2020: Eastern Montana Will House Solar Project
- June 18, 2020: Electric Cooperatives Contract With Montana's Largest Solar Project
- August 13, 2019: Montana Developer Ready to Build Modern-Day Pumped Hydro Storage
- August 10, 2019: Montana Supreme Court Order Favors Large Billings Solar Farm
- August 8, 2019: Clean Energy Fair In Bozeman to Showcase Renewable Energy Options
- August 6, 2019: Judge: Northwestern Illegally Put Off Renewable Energy Projects, Regulators Didn't Enforce Law
- July 23, 2019: Governor Names Climate Solutions Board Members
- July 14, 2019: Montana Energy Storage Project Lines Up Financial Partner

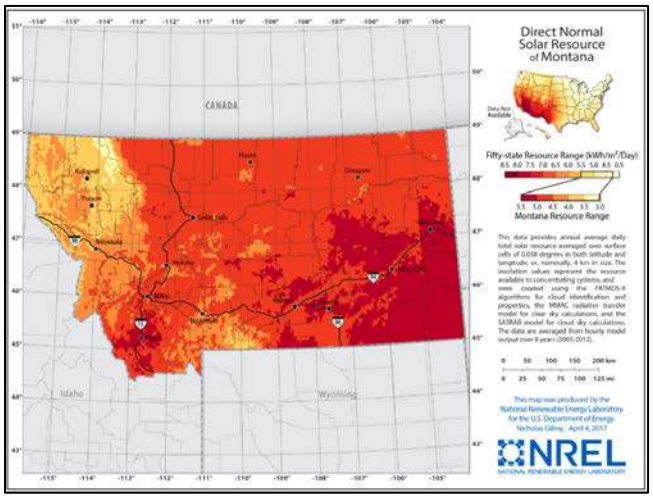
OTHER RESOURCES

- Montana Department of Environmental Quality: http://deq.mt.gov/energy
- Northern Plains Resource Council, Clean Renewable Energy: https://www.northernplains.org/issues/clean-energy/
- The American Council for an Energy-Efficient Economy State and Local Policy Database, Montana: https://database.aceee.org/state/montana
- The Database of State Incentives for Renewables and Efficiency, Montana: http://programs.dsireusa.org/system/program?fromSir=0&state=MT
- U.S. Energy Information Administration, Montana: https://www.eia.gov/state/?sid=MT
- U.S. Department of Energy's Alternative Fuels Data Center, Montana: https://www.afdc.energy.gov/states/mt
- SPOT for Clean Energy, Montana: https://spotforcleanenergy.org/state/montana/
- American Wind Energy Association (AWEA): https://www.awea.org/resources/fact-sheets/state-facts-sheets
- National Renewable Energy Laboratory Biomass Maps: https://www.nrel.gov/gis/biomass.html
- The Rocky Mountain Institute, From Gas to Grid – Building Charging Infrastructure to Power Electric Vehicle Demand: https://rmi.org/wp-content/uploads/2017/10/RMI-From-Gas-To-Grid.pdf
- The GridWise Alliance, EVs - Driving Adoption, Capturing Benefits: http://gridwise.org/evs-driving-adoption-capturing-benefits/
- The Regulatory Assistance Project, Performance-Based Regulation: https://www.raponline.org/event/performance-based-regulation-the-power-of-outcomes-part-1/
- The Interstate Renewable Energy Council, A Playbook for Modernizing the Distribution Grid, Volume 1: https://irecusa.org/publications/a-playbook-for-modernizing-the-distribution-grid-volume-1/

MONTANA'S WIND AND SOLAR RESOURCES

WIND https://windexchange.energy.gov/states/mt





Our Resources

CNEE Homepage: https://cnee.colostate.edu/

The SPOT for Clean Energy: https://spotforcleanenergy.org/

The Advanced Energy Legislation (AEL) Tracker: https://www.aeltracker.org/

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