Montana partners to study solar powered electric vehicles across Montana

The Montana Solar Powered Transportation Initiative will study the potential for solar powered electric vehicle charging stations in three communities in Montana. The group will compile its findings in a “roadmap” report to assist other communities across Montana in developing solar powered electric vehicle charging infrastructure.

Missoula, Montana – The Montana Renewable Energy Association announce they were selected by the U.S. Department of Energy’s National Renewable Energy Laboratory (NREL) to participate in a collaborative research effort to explore new ways solar energy can improve the affordability, reliability, and resiliency of the nation’s electric grid.

The Montana Solar Powered Transportation Initiative team is led by the Montana Renewable Energy Association. Project partners include the City of Bozeman, City of Missoula, City of Whitefish, the Montana Energy Office at the Department of Environmental Quality, Climate Smart Missoula, and Yellowstone Teton Clean Cities. The Montana Team is one of just nine teams selected nationally to join the program, which is known as the Solar Energy Innovation Network.

“We selected teams that are experimenting with promising ideas to use solar power to improve the future of grid security and reliability in their communities,” said Kristen Ardani, who leads the Innovation Network at NREL.

The Montana team’s participation in the Solar Energy Innovation Network will include financial, analytical, and facilitation support as it works to anticipate and address new challenges and opportunities stemming from solar energy and other distributed energy technologies in Montana. The solutions developed and demonstrated by the team will serve as a blueprint for other communities facing similar challenges and opportunities.

This project will be investigating the potential for powering electric vehicle charging infrastructure with solar power. As transportation moves towards electrification, communities will see an increase in electric buses and personal vehicles. It is important to analyze the costs, benefits, and interaction of solar with electric transportation and the grid.

The Montana Team hopes that by providing a template to deploy solar energy for electric transportation in communities, the project can serve as a model for similar-sized communities across the country. “Communities in Montana are increasingly interested in electric transportation as a solution to improve air quality and save on
vehicle fuel and maintenance costs. This project will help provide communities with critical information to help
determine the costs, benefits and impacts of solar-powered transportation in their communities,” says Kyla
Maki, with the Montana Energy Office at DEQ.

The electric transportation sector represents a tremendous growth opportunity for distributed renewable
energy, particularly solar energy. “Powering the transportation sector with solar energy is a great application of
the solar industry’s expertise and ability to innovate,” says Andrew Valainis, with the Montana Renewable
Energy Association. “The solar industry is growing, and this is yet another way to demonstrate its ability to find
solutions that benefit the greater community and their transportation and energy goals.”

Over the next 12 months, the Montana Team will be working with NREL to conduct data analysis that will help
identify optimal locations for solar powered charging infrastructure in the participating communities. The team
will also be studying grid impacts and policy and regulatory considerations. After completing these analyses, the
Team plans to facilitate public meetings to discuss the project with community members.

NREL is operating the Solar Energy Innovation Network with funding from the U.S. Department of Energy Solar
Energy Technologies Office. NREL pursues fundamental research and development of renewable energy and
energy efficiency technologies to transform the way we use energy.

**About Selectee Organization(s)**

The Montana Renewable Energy Association is a non-profit organization that works statewide to expand the use
of renewable energy in Montana, to affect public policy in favor of renewable energy, and to educate and inform
the residents of Montana of the benefits and uses of renewable energy. We are businesses, individuals, and
families dedicated to expanding Montana’s use of renewable energy in order to conserve natural resources,
create jobs, and increase the independence and resilience of our communities. Learn more at
montanarenewables.org.

The Montana Energy Office is the State Energy Office located within the Montana Department of Environmental
Quality. The Energy Office works to increase Montanans’ access to energy efficiency and renewable energy and
improve the state’s energy security, provide analysis of energy trends and issues, and demonstrate the benefits
of compliance with environmental regulations through innovation, education, and technical and financial
assistance. Learn more at deq.mt.gov/energy.

Climate Smart Missoula is the hub that fosters partnerships and actions to address climate change in our
community. With signature programs in the arenas of mitigation and adaptation, we work to transform our
energy systems to clean, renewable ones, while building a healthier Missoula for all. Learn more at
climatesmartmissoula.org.

Yellowstone-Teton Clean Cities (YTCC) is part of the U.S. Department of Energy’s (DOE’s) Clean Cities program,
which advances the nation’s economic, environmental and energy security by supporting local actions to cut
petroleum use in transportation. YTCC supports fleets, businesses, government and individuals by providing
technical assistance for implementing alternative and renewable fuels, idle-reduction measures, fuel economy
improvements, and emerging transportation technologies. Learn more at ytcleancities.org.

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