



RENEWABLE ENERGY

We envision a Missoula area that is powered by renewable energy and where community members are engaged with and have control over affordable energy systems.

Our community will significantly reduce our reliance on carbon-based fuels and increase the percentage of renewable energy in Missoula's energy budget. By 2050, we will generate enough energy through renewable sources to supply the entire Missoula community's electrical energy needs.

Snapshot: Renewable energy reduces the amount of carbon pollution associated with fossil-fuel sources. Most often, developing renewable energy is thought of as a mitigation strategy to climate change; while this is true, it is also an adaptation strategy as developing cleaner, local energy sources can be an economic driver and hedge against volatile and increasing energy prices. Already the site of one of the largest [solar photovoltaic arrays](#) in the state, opportunities abound within the Missoula community for additional renewable energy implementations. Both small and large-scale projects and accompanying state policy changes are necessary to meet our ultimate goal of community carbon neutrality. When combined with energy conservation and efficiency measures—everything from smart meters to building insulation—renewable energy projects can significantly reduce, and ultimately eliminate, the portion of Missoula's energy generation from coal, and it can do so in an affordable way. Clearly, our Renewable Energy bucket is very intertwined with Green Building, Energy efficiency and conservation Bucket.

KEY STRATEGIES:

1. Accelerate renewable energy development in Missoula

Goal: Develop at least one large renewable energy project to showcase and inspire our community while simultaneously facilitating the accelerated adoption of rooftop solar and other small-scale renewable energy projects.

Activities:

- A. Encourage and help with efforts to bring a "Solarize Missoula" group purchasing campaign to fruition. Solarize Missoula would accelerate the adoption of rooftop solar in Missoula by bringing together contractors and customers to facilitate volume-based discounts on rooftop solar installations.
 - a. Work with Montana Renewable Energy Association (MREA) to launch Solarize Missoula.
 - b. Enhance outreach and opportunities to grow the program.
 - c. Track success as measured with our community greenhouse gas inventory
- B. Support the University of Montana as it explores an expansive renewable energy project.
- C. Help build support for new biogas electrical generation project at the wastewater treatment plant.
- D. With the Missoula Energy and Climate Team, consider and assist with a community fundraiser to install solar on a municipal or nonprofit building.
- E. Work with financial institutions and local and state government to address upfront financing costs.

Metrics and timetable



- a. Kick off Solarize Missoula in 2015. Track number of solar installations and business impacts.
- b. Track success of UM, City of Missoula's projects over the course of next five years.
- c. Biogas generation moving forward in 2016 (completed by 2018).

2. Advocate for needed policy

Goal: Develop strategies to understand and advocate for crucial policy changes to allow more individual and community scale renewable energy.

Activities:

- A. Research and document barriers and outdated local and state policies that hamper efforts to move renewable energy forward.
- B. Build support for needed policies that promote distribution of energy within neighborhoods and communities (net metering, community solar, etc.)
- C. Encourage pro-renewable energy policy with both Montana's Public Service Commission and NorthWestern Energy.
- D. Legislative change. Each legislative session, prioritize proactive clean energy policies, such as:
 - i. State Renewable Portfolio Standard Increase (e.g., 25% by 2025)
 - ii. Improved net-metering laws (increase cap, allow for neighborhood/community aggregation, roll over credits beyond one year, etc.).
 - iii. Legislation that allows PACE Programs – Property Accessed Clean Energy.
 - iv. Legislation to legalize crowd-funding (e.g., Mosaic) in Montana to increase abilities of individuals and businesses to invest in renewable energy
 - v. Legislation that allows solar-leasing.
 - vi. For all, be part of smart campaign strategy. Identify specific project to showcase during next legislative session, have the right messengers tell stories, work with partners across Montana.
 - Identify ways to streamline local and state permitting processes for renewable energy production. Provide incentives and remove barriers.
 - Generally advocate in support of current good rules, regulations, and laws (play defense when necessary).

Metrics and Timetable

- a. Results of policy assessment and financing options would be shared widely and dissemination and utility documented (through 2017 Legislative session).
- b. Success defined by laws passed or rules established. Document success and disappointments at each of our every-other-year State legislative session.

3. Engage in education and outreach

Goal: Enhance community understanding of and enthusiasm for renewable energy, in terms of both its carbon footprint and its economic benefit.

Activities:

- A. Work with partners to develop outreach materials, utilizing Climate Smart website, social media, and more.



- B. Co-sponsor MREA's fall Clean Energy Fair
- C. Help showcase renewable energy at other local fairs and events (Earth Day, River City Roots festival, etc).

Metrics and Timetable

- a. Track materials produced and disseminated. Ongoing
- b. Track participation in events and attendees. Ongoing

ADDITIONAL STRATEGIES:

- Develop and implement Community Renewable Energy Loan Fund program (see Helena ex.).
- Build support for and expand technologies to utilize additional forward thinking energy projects:
 - landfill methane co-generation system
 - micro-hydropower
 - Solar roadways
 - Geothermal home heating and cooling, ground source heat pump
 - Energy transmission optimization
 - Smart Grid prototype
- Develop system for carbon offsets.
- Develop additional financing mechanisms beyond state and federal renewable energy tax credit (see ClearSky Climate Solutions).
- Improve marketing of renewable energy technology.

A CLIMATE SMART WAY FORWARD:

Progress on the local renewable energy front requires many pieces of the puzzle to come together: better policy and financing combined with bold individuals and groups and individuals who are willing to, at times, take risks and consider the long view. State policy changes are needed to permit large-scale generation projects and many net-metering installations. The community likely needs to attract significant capital investment from the private sector for large-scale renewable energy projects. Additional financing tools are needed to lower upfront capital investment requirements and enable broader implementation of renewable energy projects by businesses and homeowners. As we implement our community greenhouse gas inventory, we will need solid energy data, and although this will be a challenge, we hope improvements can be made in the years to come. For instance, Smart Grid implementation throughout the Missoula community, would allow us to use clear and readily available data regarding Missoula's energy use and generation profile. Although the challenges to wide-scale use of renewable energy are real, the Missoula Community can position itself to be closer to the cutting edge and really make things happen.

And Remember:

- Work together, with partners and experts
- Build and support energy systems that support all our community members, especially lower income.
- Be persistent—systematic and real change will take a while. NASA didn't know exactly how they'd get to the moon – or Pluto – they just knew they needed to try, one step at a time.



Potential Partners: Montana Renewable Energy Association (MREA), University of Montana, Missoula College, US Forest Service, Alternative Energy Resource Association, City of Missoula, Missoula County, and more.



Developing Renewable Energy strategies during Summit #2