



Appendix IV: Energy Efficiency in Cities and States Across the U.S.

To inform Missoula's 100% Clean Electricity Options Report

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Climate Smart Missoula

What Energy Efficiency Models are being pursued in other states and cities?

Beyond the cities, counties, and states that have committed to 100% renewable energy goals, many more have adopted plans to increase their energy efficiency. Saving energy is often one of the first steps in developing community sustainability plans as it's seen as the "cleanest cheap energy" available that saves money and establishes a foundation for more ambitious renewable energy goals. The American Council for an Energy-Efficient Economy (ACEEE) releases an updated [State Energy Efficiency Scorecard](#) that ranks states' energy efficiency based on factors such as city involvement, transportation, and utility participation.¹ ACEEE's top five states--Massachusetts, California, Rhode Island, Vermont, and Connecticut--all share commonalities in their plans including an emphasis on benchmarking and transparency.

Most of these states have energy consumption disclosure mandates for residential and municipal buildings that require them to share energy information with buyers, lenders, and lessees, as well as are required to share information on the benefits of home energy audits to home buyers.²³ Many states and cities that have benchmarked their efficiency targets also provide annual reports that breakdown the community's current Greenhouse Gas inventory and energy savings. This transparency can hold both private business owners and city municipalities accountable for the efficiency of their buildings and infrastructure. Communities with effective energy savings programs often have green building codes for new developments that require a certain level of energy efficiency to be met. In San Antonio, Texas, it is a formally adopted tenant of their sustainability plan to reduce the energy use of their buildings within the city from 116 to 90 kBtu per square foot by 2040.⁴

Effective energy efficiency plans also contain rebates and other financial incentive programs. The focus of these programs varies depending on the city or state, but they all exist to motivate community members and city officials to make development decisions, whether purchasing appliances or building a new school, with sustainability in mind. For example, Massachusetts (ranked #1 on ACEEE's Scorecard) has a Transit-Oriented Development Bond Program that provides financial support for pedestrian improvements, biking infrastructure, housing projects, and parking facilities near public transit stations to foster a more diverse transportation mix throughout the state.⁵ In California, there is a significant

¹ <https://aceee.org/state-policy/scorecard>

² <https://database.aceee.org/state/california>

³ <https://database.aceee.org/state/massachusetts>

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<https://www.sasustainabilityplan.com/files/managed/Document/160/SA%20Tomorrow%20Sustainability%20Plan%20Adopted%2008%2011%202016%20S.pdf>

⁵ <https://database.aceee.org/state/massachusetts>

focus on sustainable construction and modernization of K-12 schools. The Governor's Strategic Growth plan provides \$100 million in grants for projects that include such attributes as using materials that promote energy and water efficiency, maximizing the use of natural light, and utilizing recycled, non-toxic building materials.⁶

Regardless of the specificities of these programs, a necessity for efficiency success appears to be cooperation from the local energy utilities. The most significant energy efficiency programs include least-cost energy plans that require the utility to purchase its energy resources from the cheapest sources--which, increasingly, encompass solar and wind energy--as well as account for both environmental and economic costs in these cost-benefit analyses. Additionally, all of ACEEE's top five ranked states have or are in the process of decoupling their energy utilities, a process that removes the pressure on utilities to sell as much energy as possible by disassociating utility revenues and sales volume. This counteracts the utility system that discourages conservation and efficiency measures because it would decrease sales.⁷ Decoupling is by no means a perfect solution, but when its approach is developed in a collaborative way it can be effective. Many utilities also have their own rebate or incentive programs that provide customers with opportunities to support the utility's development of new renewable generation or receive financial support for small residential solar or wind installations.

What Energy Efficiency Models are most relevant to Missoula?

Based on our options report, energy efficiency could account for ~15% of our 100% renewable electricity goals, amounting to 45,000 MWh. It's clear that reaching this goal would require a diverse number of approaches, some built off of frameworks that already exist. The City of Missoula has benchmarked sustainability goals that include reducing energy use in city buildings and the city fleet that have been successful so far.⁸ In order for that work to progress, Missoula needs updated Greenhouse Gas inventories and energy audits to effectively track our goals. This will also require us to build active data-sharing partnerships within Missoula, especially with our main electricity provider, NorthWestern Energy. Assistance with aggregated data and transparency from NorthWestern Energy will be critical as we develop bolder efficiency benchmarks, and cooperation with the city and county will require them to expand on their current efficiency incentive programs. NorthWestern Energy is not currently in the process of decoupling, but their representatives have said they are not opposed to the idea.

Overall, Missoula is currently lacking the funding and capacity to make major moves on efficiency. There are plenty of examples from other cities and states of how to develop incentive programs and mandate efficiency requirements while remaining transparent and accountable to the public. There are many resources for more information on energy efficiency measures Missoula could implement, such as the [North West Energy Coalition](#), a coalition of organizations, businesses, and utilities which exists to promote energy conservation and develop renewable energy in the northwestern region. Partnering with such groups is a good way to foster more ambitious commitments as we develop our electricity efficiency goals.

⁶ <https://database.aceee.org/state/california>

⁷ <https://www.c2es.org/document/decoupling-policies/>

⁸ <http://www.ci.missoula.mt.us/1709/Conservation-Climate-Action-Plan>