



CHP in Missouri's Comprehensive State Energy Plan



Plan Description

In June 2014, the Missouri Department of Natural Resources' Division of Energy (Division) was tasked to lead development of the state's first Comprehensive State Energy Plan (CSEP). The task required in-depth analysis of Missouri's energy resources, consumption, and infrastructure; an examination of existing state energy policies and regulations; and identification of the challenges and opportunities for Missouri's energy future. The CSEP's recommendations for action were shaped by this analysis, along with a comprehensive stakeholder engagement process and a review of best practices from around the country. At the 2015 Midwest Energy Policy Conference in St. Louis, Missouri, officials released the CSEP, with combined heat and power (CHP) featured as a resource to meet Missouri's short- and long-term needs for clean, reliable, affordable, and abundant energy. In 2020, Division staff are gearing up for additional workshops to continue the ongoing state energy planning process.

Plan Development and Stakeholder Engagement

Missouri has a strong history of thoughtful and forward-looking energy planning. Past efforts include the "Missouri Statewide Energy Study" (1992), "Report of the Missouri Energy Futures Coalition" (1997), "Missouri's Energy Task Force Report: A Comprehensive Look at Fossil Fuels & A Plan for Missouri's Future" (2006), and "Report of the Joint Interim Committee on Missouri's Energy Future" (2009).

The CSEP process built upon these previous efforts with a focus on robust stakeholder engagement. In October 2014, the Division hosted seven meetings across the state to provide information about the planning process and encourage input. During these events, subject matter experts educated steering committee members about aspects of energy to be



Rich Sedano of the Regulatory Assistance Project gave a presentation during the October 22 stakeholder session, held at Metropolitan Community College – Penn Valley in Kansas City, Missouri.

Source: Missouri Department of Natural Resources, Division of Energy

addressed in the CSEP. Each meeting included presentations from local and national subject matter experts and focused on a different energy topic or combination of topics. For example, Rich Sedano of the Regulatory Assistance Project presented at the October 22 session on energy pricing and rate-setting practices. Establishing cost-based standby rates and interconnection procedures that reflect best practices are key CSEP action items related to CHP. At a meeting on "Diversity and Security of Supply," participants discussed how CHP might contribute to the state's energy security and resilience. During this workshop, it was noted that the University of Missouri CHP plant has an efficiency factor of approximately 76%, reduces CO₂ emissions by an estimated 107,000 tons per year, and received the EPA Energy Star Combined Heat and Power Award in 2010. The plant added a biomass boiler in 2012, reducing the system's fossil fuel use by an additional 25%. The CSEP features the university's CHP system in a highlight box, increasing the visibility of CHP successes.

Altogether, a total of 359 stakeholders—representing state and local government, regulators, industry, and environmental organizations—attended the seven public meetings that shaped the content of the CSEP.

Summary of Plan Recommendations

The CSEP summarizes the benefits of CHP and provides data on CHP's technical potential in Missouri, recognizing the opportunity to help Missouri achieve its short- and long-term energy goals. The CSEP included the following explicit and actionable recommendations specific to CHP:

- Allow electric utilities to treat CHP in the same manner as other energy efficiency measures.
- Examine the potential for CHP, geothermal, and solar thermal applications at existing and new state facilities as approaches to efficiency on a larger scale.
- Develop a statewide study that fully assesses both the technical and economic potential of CHP opportunities.
- Establish cost-based standby rates and interconnection procedures that reflect best practices.

As of 2020, all CSEP recommendations are being assessed to further understand feasibility, costs, benefits, and timelines for implementation.

Lessons to Share

Division leadership pursued an "all of the above" approach with the CSEP, which allowed natural market forces and industry stakeholders to be the main drivers. As a result, there was considerable discussion regarding CHP, including actions to be taken to better inform energy stakeholders about the technology, and challenges that need to be addressed. Discussion participants acknowledged that CHP might experience slow uptake in the Missouri marketplace if the policy, regulatory, and financing challenges were not addressed, given the considerable up-front investment that CHP implementation entails.

Overall, in conducting its analysis and soliciting public input during the CSEP development process, the Division grounded its approach on the following principles:

- **Promoting Efficiency of Use:** Using energy more wisely is a first step in optimizing Missouri's energy system.
- **Ensuring Affordability:** Missouri's energy system must meet the health, welfare, and economic needs of its citizens, with particular emphasis on vulnerable populations.
- **Diversifying and Promoting Security in Supply:** Missouri must maximize in-state clean energy resources and decrease dependence on imported fossil fuel energy sources.
- **Undertaking Regulatory Improvements:** Updates and modifications to laws and regulations can expand opportunities, deliver enhanced benefits to residents, and guide Missouri forward.
- **Stimulating Innovation, Emerging Technologies, and Job Creation:** Research initiatives, workforce development, education, and support for local industry will foster a business climate that attracts innovation and creativity.

For More Information

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