



Combined Heat and Power (CHP) Background – Montana

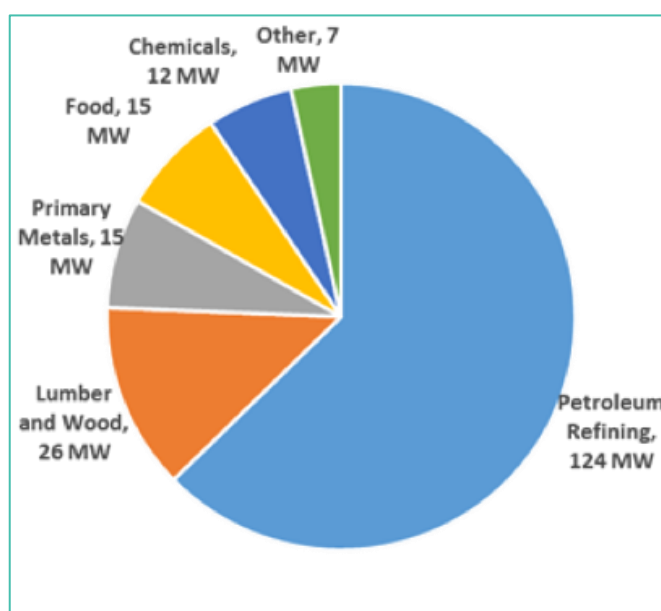
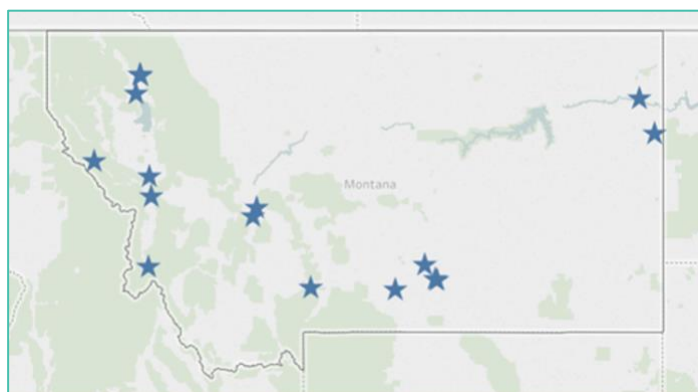
Upper-West CHP Technical Assistance Partnership (TAP) Quick Facts

- The Upper-West CHP TAP works with regional partners to promote and assist in transforming the market for CHP, waste heat to power, and district energy technologies throughout the upper western part of the U.S.
- The Upper-West CHP TAP serves the states of Colorado, **Montana**, North Dakota, South Dakota, Utah, and Wyoming.

State	Number of Current Sites	Total CHP Capacity (MW) Deployment	Number of Potential Sites	Total CHP Technical Potential (MW)	CHP TAP Activities (2014-2017)		
					Technical Assistance	End-User Education	Policymaker Education
Colorado	26	508	4,544	1,718	19	7	19
Montana	16	73	942	377	31	6	3
North Dakota	12	165	890	445	1	4	0
South Dakota	5	24	969	378	0	4	0
Utah	22	289	2,676	1,119	15	7	17
Wyoming	11	170	609	847	2	4	6
Total	92	1,229	10,630	4,884	68	32	45

Montana CHP Installations

CHP Technical Potential by Industrial Sector





Montana CHP Project Snapshots

- ♦ **University of Montana, Missoula (Missoula, MT)** – The University of Montana in Missoula installed a 440 kW CHP system in its central heating plant in 1995 in order to reduce energy costs and increase generation efficiency. The CHP system operates 24/7, with only ten days of down time per year, and provides the campus with energy savings of over \$73,000 per year.
- ♦ **F.H Stoltze Land and Lumber (Columbia Falls, MT)** – In order to replace aging boilers and increase efficiency at the mill, the F.H. Stoltze Land and Lumber mill installed a 2.5 MW steam turbine CHP system. The CHP system uses local wood waste as fuel, provides waste heat to the mill for space heat and drying kilns, and electricity to 3,000 local customers.

Testimonials from CHP TAP Beneficiaries in the Upper-West

“With [the Upper-West CHP TAP’s] support, we have done extensive design analysis for implementing a 5 MW scale CHP system at one of our universities and have completed feasibility screenings at state and private hospitals....The CHP TAP has provided educational and technical support that has enabled our office to analyze CHP projects. Without the screening tools and support from the CHP TAP we most likely would not have considered CHP as an alternative to standard HVAC systems for many of our facilities. On-going support provided by [the TAP] is a high value resource. We also appreciate their continued effort to upgrade CHP tools to include additional product vendors.”

*David Lemieux, Senior Energy Engineer
Montana State Energy Office
Helena, MT*

The Upper-West CHP TAP provided early stage screenings, technical assistance, and/or studies to determine project feasibility for the following:

“Cogen is a good way to go for a large facility with a heat load like ours. We’ve hardly ever been without power. If you want high reliability, especially in outlying areas, cogen can be a good alternative or supplement to the utility.”

*Jerry Giles, Director of Village Operations
Snowbird Ski and Summer Resort
Salt Lake City, UT*

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¹ U.S. DOE, December 2016, “Combined Heat and Power Installation Database” (<https://doe.icfwebservices.com/chpdb/>).

² U.S. DOE, March 2016, “Combined Heat and Power (CHP) Technical Potential in the United States” (<https://energy.gov/eere/amo/downloads/new-release-us-doe-analysis-combined-heat-and-power-chp-technical-potential>).