



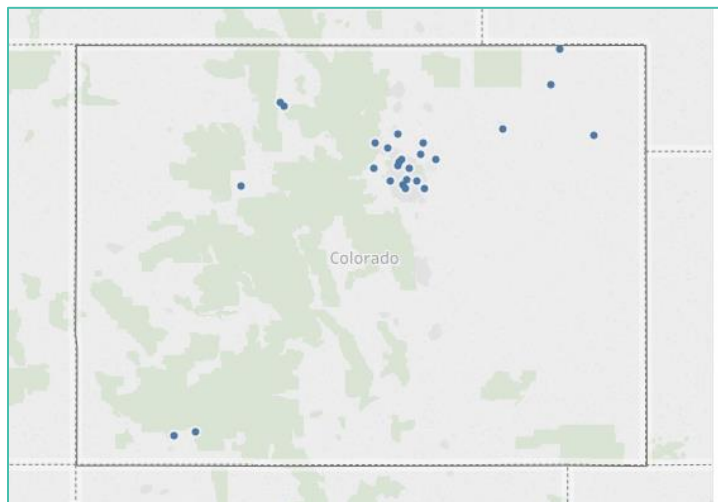
## Combined Heat and Power (CHP) Snapshots – Colorado

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

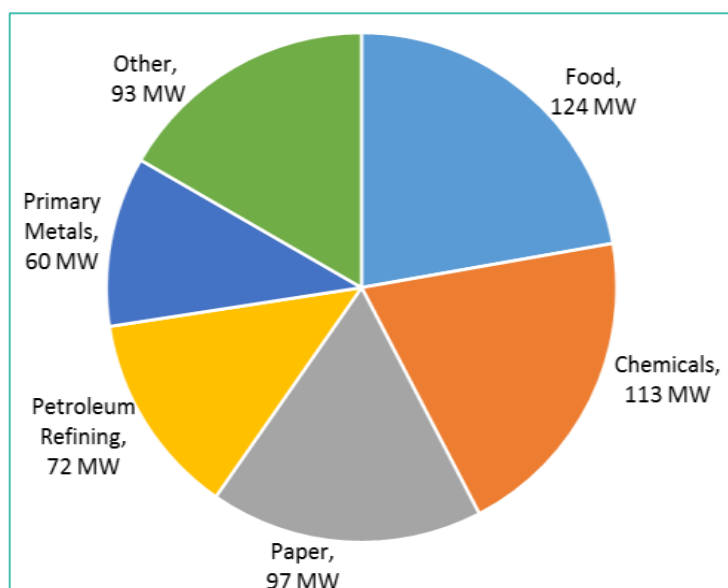
- The Upper-West CHP TAP works with regional partners to promote and assist in transforming the market for CHP, waste heat to power, and district energy technologies throughout the upper western part of the U.S.
- The Upper-West CHP TAP serves the states of **Colorado**, Montana, North Dakota, South 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
<b>Colorado</b>	<b>26</b>	<b>508</b>	<b>4,544</b>	<b>1,718</b>	<b>19</b>	<b>7</b>	<b>19</b>
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
<b>Total</b>	<b>92</b>	<b>1,229</b>	<b>10,630</b>	<b>4,884</b>	<b>68</b>	<b>32</b>	<b>45</b>

### Colorado CHP Installations



### CHP Technical Potential by Industrial Sector





## Colorado CHP Project Snapshots

- **Metro Wastewater Reclamation District (Denver, CO)** - In order to effectively serve the 1.7 million people in its district, the Metro Wastewater Reclamation District installed a 6 MW CHP system in 2000. Utilizing methane produced onsite as a byproduct of the water treatment process, the CHP system provides electricity and heat to the largest wastewater treatment plant west of the Mississippi River. Suez Energy owns and operates the CHP system, which provides a more reliable power source than the local grid.
- **Trailblazer Pipeline (Peetz, CO)** – Gas turbines drive compressors to maintain the pressure of the gas as it travels through the 436-mile Trailblazer natural gas pipeline near Peetz, Colorado. A 4 MW Waste Heat to Power (WHP) system, owned and operated by Ormat Technologies, captures the exhaust heat from the turbines and uses it to generate electricity. Ormat sells the power to Highline Electric Association (HEA), the local rural electric co-op; the associated renewable energy credits (RECs) are ultimately transferred to Tri-State Generation and Transmission to help it meet its obligation under Colorado's renewable energy standard. The WHP system, called recycled energy in Colorado, helps HEA save over \$600,000 a year and reduces annual CO<sub>2</sub> emissions by 27,600 tons.

## 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*

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

<sup>2</sup> 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>).