



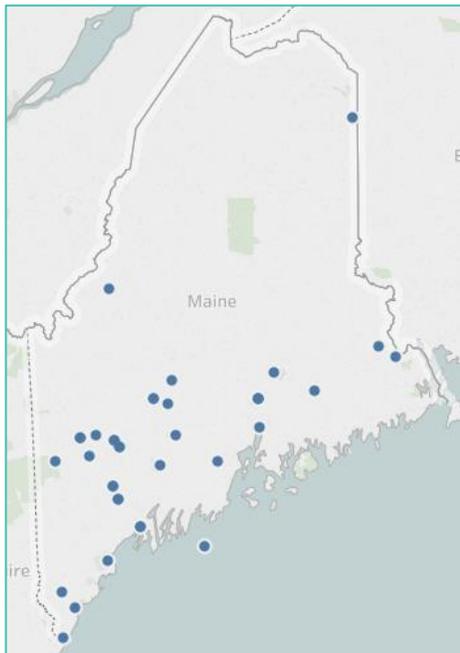
Combined Heat and Power (CHP) Snapshots – Maine

New England CHP Technical Assistance Partnership (TAP) Quick Facts

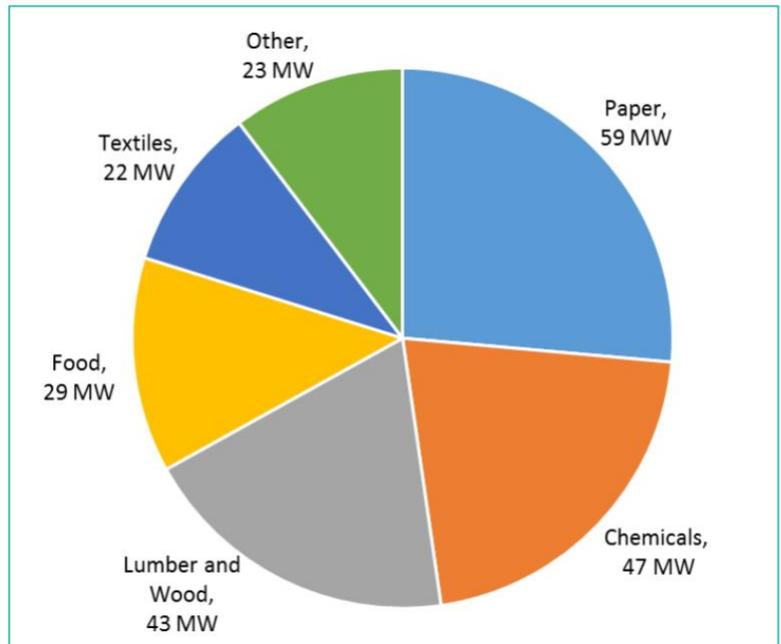
- The New England CHP TAP works with regional partners to promote and assist in transforming the market for CHP, waste heat to power, and district energy technologies throughout the northeastern region of the U.S.
- The New England CHP TAP serves the states of Connecticut, **Maine**, Massachusetts, New Hampshire, Rhode Island, and Vermont.

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
Connecticut	188	740	3,443	1,323	14	7	4
Maine	38	933	1,385	494	1	3	4
Massachusetts	224	1701	6,659	3,434	120	15	3
New Hampshire	17	47	1,363	447	8	2	1
Rhode Island	28	133	1,114	616	2	2	2
Vermont	34	20	657	228	7	2	1
Total	529	3,574	14,621	6,542	152	31	15

Maine CHP Installations



CHP Technical Potential by Industrial Sector





Maine CHP Project Snapshots

- ◆ **Eastern Maine Medical Center (Bangor, ME)** – The medical center installed a 4.4 MW CHP system in 2006 to provide heating, cooling, and electric power to all essential hospital services. The CHP system increased the hospital’s overall reliability and helps protect patients by allowing the facility to keep operating during grid outages, such as those caused by devastating ice storms that impacted the region in previous years. In addition, during normal operations, the significant energy cost savings from the CHP installation resulted in a 4.5 year payback on the investment for the facility.
- ◆ **Moose River Lumber (Jackman, ME)** – A 425 kW CHP system was installed in 2011 at the Jackman lumber mill. The CHP system is powered by biomass waste (wood chips, shavings, etc.) generated by the facility, greatly increasing the mill’s efficiency and decreasing fuel and operating costs by about \$800,000 per year. The increased efficiency and cost reductions from the CHP system have allowed the mill to become increasingly competitive with other wood products manufacturers in the Northeast.

Testimonials from CHP TAP Beneficiaries in New England

“We implemented all of [the New England CHP TAP’s] recommendations and all of them proved very helpful. The biomass CHP proved especially valuable during the period when #6 fuel oil rose above \$100 per barrel. This proved a death knell for many paper mills during that period but we rode through comfortably thanks to the steady and low cost of biomass. Thank you again for [the TAP’s] help.”

*George Jones, Owner
Seaman Paper
Otter River, MA*

“Dr. Dragoljub Kosanovic of the CHP TAP performed a feasibility study for a CHP plant at Hanscom Air Force Base in 2014. In addition, he attended a one-day in-house conference at Hanscom to help pitch to project to Hanscom tenants, engineers, and maintenance staff. As a result of Dr. Kosanovic's efforts, the groundbreaking for a 5 MW CHP plant at Hanscom is taking place in June 2017, expected to be completed by January 2018. Dr. Kosanovic was very helpful in overcoming preliminary objections to the CHP plant.”

*Kate DeWolf, Architect in NH & TX, LEED AP, CEM Resource Efficiency Manager
US Army Garrison, Fort Devens, Hanscom Air Force Base
Devens, MA*

New England CHP TAP Contact:

David Dvorak, Ph.D., P.E., University of Maine
207-581-2338, dvorak@maine.edu

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>).