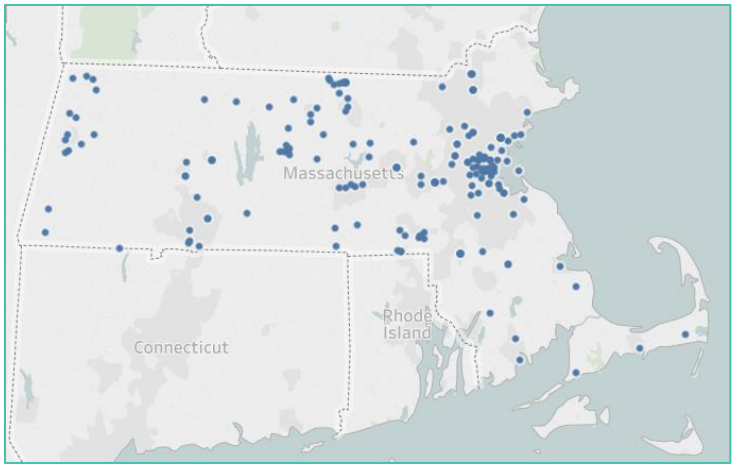
Combined Heat and Power (CHP) Snapshots – Massachusetts

New England CHP Technical Assistance Partnership (TAP) Quick Facts

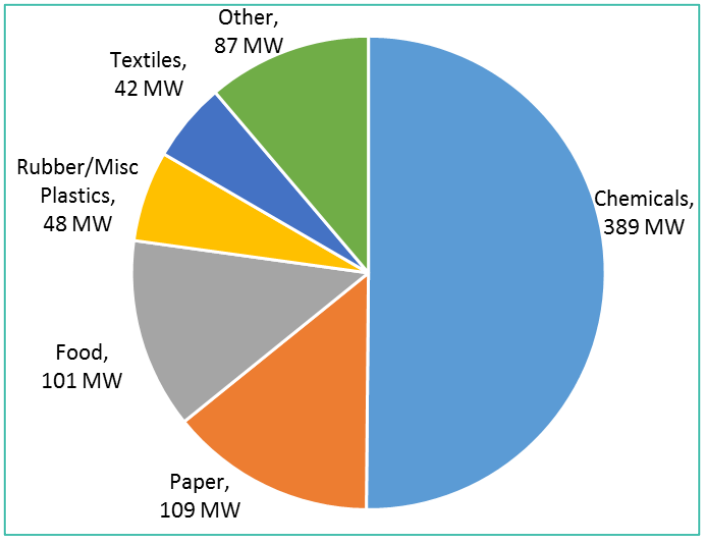
- The New England CHP TAP works with regional partners to promote and assist in transforming the market for CHP, waste heat to power, and district energy technologies throughout the northeastern region of the U.S.
- The New England CHP TAP serves the states of Connecticut, Maine, **Massachusetts**, New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

Massachusetts CHP Installations



CHP Technical Potential by Industrial Sector



Massachusetts CHP Project Snapshots

- **Simonds International (Fitchburg, MA)** - Simonds International's Fitchburg facility has been in operation since 1935, manufacturing metal blades for band saws. In 2011, they installed a 1.8 MW CHP system to avoid high costs from purchasing grid electricity and to achieve additional efficiency and financial savings by using recovered heat to warm and cool buildings onsite. With improved economics as a result of CHP, the company was able to retain energy intensive manufacturing operations and consider adding new operations in the future.
- **Seaman Paper (Otter River, MA)** – The owners of Seaman Paper, a historic paper mill constructed in the 1800s, were interested in using wood waste from the mill to power their facility. Because of the rising costs of #6 fuel oil, the mill installed a 283 kW CHP system in 2009. With CHP supplying electricity and steam to meet industrial process needs at the mill, Seaman Paper is able to continue around-the-clock operations while saving $1.5 million per year in energy costs.

Testimonials from CHP TAP Beneficiaries in New England

"We implemented all of [the New England CHP TAP] 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 Hansom 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

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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).