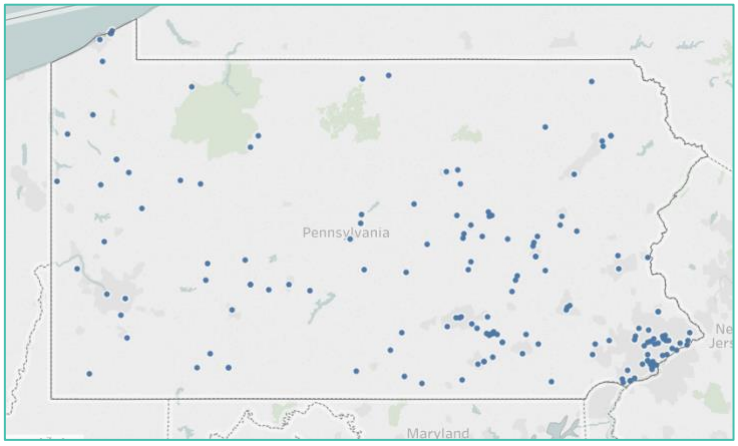
Combined Heat and Power (CHP) Snapshots – Pennsylvania

Mid-Atlantic CHP Technical Assistance Partnership (TAP) Quick Facts

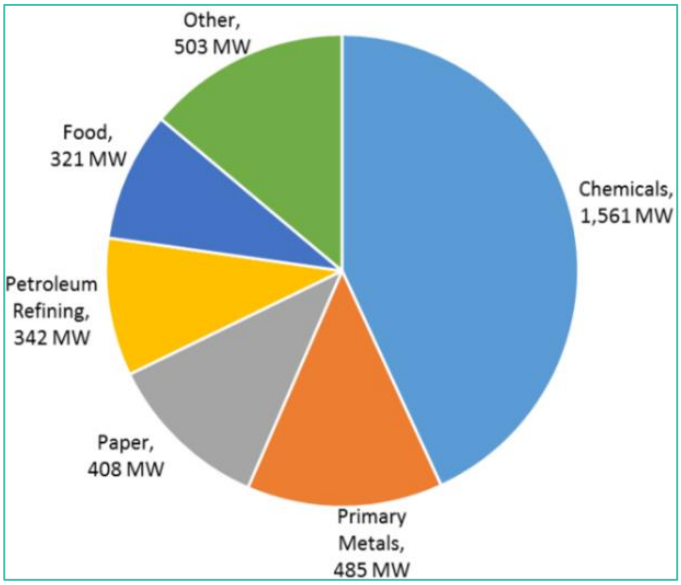
- The Mid-Atlantic CHP TAP works with regional partners to promote and assist in transforming the market for CHP, waste heat to power, and district energy technologies throughout the Mid-Atlantic region of the U.S.
- The Mid-Atlantic CHP TAP serves the states of Delaware, Maryland, **Pennsylvania**, Virginia, and West Virginia.

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
Delaware	7	371	832	747	11	1	0
Maryland	37	668	4,920	2,645	104	2	14
Pennsylvania	**168**	**2,938**	**12,708**	**7,759**	**67**	**13**	**21**
Virginia	50	1,608	7,291	4,308	10	3	6
West Virginia	10	277	1,630	929	5	3	3
Total	272	5,862	27,381	16,388	197	22	44

Pennsylvania CHP Installations



CHP Technical Potential by Industrial Sector



Pennsylvania CHP Project Snapshots

- **Allentown Wastewater Treatment Plant (Allentown, PA)** – To reduce operating costs at its wastewater treatment plant, the City of Allentown installed a 360 kW CHP system. With these three microturbine CHP units at the facility, the City was able to reduce its reliance on the grid while utilizing inexpensive, biogas produced onsite as a fuel source. The City received state energy efficiency incentives, financed the project through a performance contract, and sees energy savings of $65,000-125,000 per year.
- **Interstate Resources – Evergreen Community Power Plant (Reading, PA)** – Facing a declining demand for paper products and the continued outsourcing of the pulp and paper industry, Interstate Resources installed a CHP system at their Reading paper mill to make the facility more cost competitive. Operating the 33 MW Evergreen Community CHP power plant that utilizes wood waste from the mill, enabled Interstate Resources to save over $10 million in energy costs per year while meeting the facility's electricity and thermal energy needs and making the plant more competitive with other producers in the industry.

Testimonials from CHP TAP Beneficiaries in Pennsylvania

"Berks County Industrial Development Authority (BCIDA) greatly appreciates the technical guidance that the DOE Mid-Atlantic CHP TAP has provided over the last two years in delineating the central role of Combined Heat and Power in a proposed Industrial Park Microgrid at the Reading Airport complex. Successful implementation of the CHP based microgrid at the Park is expected to produce 500+ high quality jobs, with the CHP system using PA Marcellus Shale gas for in-state economic growth. The developing industrial park has been a team effort among BCIDA, the Commonwealth of PA, local utility Met Ed/First Energy, a local energy storage (battery) manufacturer and the MACHPTAP. We look forward to continuing to work with the MACHPTAP in assessing the role of CHP in the various micro-grid assessments underway."

Berks County Industrial Authority
Berks County, PA

"The Mid-Atlantic CHP Technical Assistance Partnership engagement in policy and regulatory development has provided the PA DEP with clear and distinct best practices from across the nation. We are excited by the progress made in using CHP to enable renewable energy and storage in micro-grids for resiliency and environmental benefits."

Pennsylvania Department of Environmental Protection
Harrisburg, PA

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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).