



# **CHP BIENNIAL REPORT 2025**

Technical Utility Services  
Paul T. Diskin, Director

Prepared by David Edinger  
Policy and Planning

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## Executive Summary

This report has been prepared to provide a picture of the amount and types of combined heat and power (CHP) systems that exist or are in some stage of development in Pennsylvania and represents the deployment of CHP from July 2022 to June 2024. The information contained herein is given in a manner that does not compromise the confidentiality of CHP owners, while also providing a useful snapshot of the state of CHP deployment. This report does not speculate on the long-term prospects of CHP deployment, nor is it intended to provide commentary, good or bad, as to the relative capacities or the amount of CHP systems in the respective service territories of any electric or natural gas distribution company.

The deployment of CHP relies on many factors, principally driven by the customer's valuation to invest in owning and operating such a system. Two of the primary considerations include the value of energy resiliency and a project's rate of return, including aspects such as the cost of installation versus reducing overall electricity and heating costs, payback period of the cost of installation, and/or whether the capital expenditure could better be utilized elsewhere. While this report reflects deployment during the time when COVID-19 pandemic restrictions were easing and removed, disruptions from the pandemic may still have had an effect on CHP deployment, particularly with supply chain issues during this time period.

As noted in Table 1, there are a total of 134 interconnected CHP systems (101 reported by electric distribution companies (EDCs) and natural gas distribution companies (NGDCs) and 33 found through other means). This is one more than was listed in the 2023 CHP Biennial report. Only one previously reported potential system came online since the last report and a few more potential systems have been added, for a total of 19 potential CHP systems. This number is a slight decrease from the last report. EDCs and NGDCs have continued to report on previously unreported interconnected systems as they are discovered, demonstrating an earnest effort to continue to capture the full scope of CHP deployment in Pennsylvania. For this 2025 report, the reported number of disconnected CHP systems is nine.

Table 1. Comparison of the Number of Reported CHP Systems and Nameplate Capacity (MW)

	2023 REPORT		2025 REPORT	
	INTERCONNECTED	POTENTIAL	INTERCONNECTED	POTENTIAL
<b>SYSTEMS</b>	131*	21	135*	19
<b>NAMEPLATE CAPACITY (MW)</b>	777.07	43.68	1,134.13	31.33
<b>SYSTEMS (&lt;1 MW)</b>	70	11	72	7
<b>SYSTEMS (1-10 MW)</b>	45	9	46	12
<b>SYSTEMS (&gt;10 -50 MW)</b>	10	1	10	0
<b>SYSTEMS (&gt;50 MW)</b>	5	0	6	0

\* The total number of systems is one greater than the sum of the systems based on nameplate capacity because one of the system’s nameplate capacity is unknown.

## Introduction and Background

CHP is not a single technology but rather a well understood suite of technologies. The first power plant in the United States, the Pearl Street Station, began operation on Sept. 4, 1882. It was also the first CHP plant because the thermal byproduct of the steam engines was used to provide steam to local manufacturers and heat to nearby buildings on the same Manhattan block.<sup>1</sup> While CHP has been around for over 100 years, it continues to evolve. This evolution includes the use of different fuels, like biogas and hydrogen, and advances in engine design, like combustion turbines and fuel cells. The key to any successful CHP project is whether it will meet the owner’s needs and budget.

In the spring and fall of 2014, the Commission held *En Banc* hearings on CHP at Drexel University and the University of Pittsburgh, respectively.<sup>2</sup> Witnesses representing a cross section of the community interested in CHP testified at the hearings, including consultants, electric and natural gas distribution companies, universities, and CHP system owners and advocates. These hearings reinforced the Commission’s understanding that a

<sup>1</sup> See [Northwest CHP Technical Assistance Partnership > About Clean Energy > Combined Heat and Power \(CHP\) > History of CHP \(northwestchptap.org\)](#).

<sup>2</sup> See <https://www.puc.pa.gov/natural-gas/combined-heat-power/> under “Combined Heat and Power (CHP) En Banc Hearing – May 5, 2014” and “Combined Heat and Power (CHP) En Banc Hearing – October 7, 2014”.

coordinated approach to CHP can provide real benefits to the economy, the environment, and the security of residents and businesses within the Commonwealth.

On Feb. 25, 2016, the Commission adopted a Proposed Policy Statement in support of CHP, to encourage companies to share progress on the deployment of CHP systems, and to help the Commission determine how to best continue the advancement of CHP.<sup>3</sup> Numerous stakeholders provided a variety of comments regarding policy issues and the proposed biennial reporting requirements.

On April 5, 2018, the Commission issued its Final Policy Statement.<sup>4</sup> In doing so, the Commission sought to catalog known, existing and proposed CHP systems.<sup>5</sup> The Commission further sought to understand 1) if and how the EDCs and NGDCs encourage and/or extol the benefits of CHP, via marketing or otherwise to potential clients and, 2) if, via the establishment of a CHP Working Group process, the Commission may be able to better facilitate the deployment of CHP technology within the Commonwealth. Finally, the Final Policy Statement requires the Bureau of Technical Utility Services (TUS) to produce a report based on the findings of the biennial report filings and any timely outcomes from the CHP Working Group meetings.

A series of three CHP Working Group meetings were held in Harrisburg at the Keystone State Office Building. The first Working Group meeting was held on May 30, 2018. The main topics of discussion were clarifications to the biennial reporting requirements, clarifications of interconnection jurisdiction and costs, information on CHP financing and project support, issues and questions regarding standby rates, and an overview of alternative ratemaking. The second Working Group meeting was held on July 16, 2018. The sole focus of this subsequent meeting was standby rates, because of the significant interest and discussion on the topic during the prior meeting. Additionally, presentations were provided by the U.S. Department of Energy's (DOE) Combined Heat and Power Technical Assistance Partnership regarding a relevant, DOE-commissioned study on standby rates, and by PECO regarding a new standby rate rider. The last Working Group

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<sup>3</sup> See [Proposed Policy Statement](http://www.puc.pa.gov/pcdocs/1422142.doc) at <http://www.puc.pa.gov/pcdocs/1422142.doc>

<sup>4</sup> See [Final Policy Statement](http://www.puc.pa.gov/pcdocs/1560599.doc) at <http://www.puc.pa.gov/pcdocs/1560599.doc>

<sup>5</sup> See [http://www.puc.state.pa.us/Electric/xls/CHPWG/CHP\\_Report\\_Form.xlsx](http://www.puc.state.pa.us/Electric/xls/CHPWG/CHP_Report_Form.xlsx) for the form used by the utilities to report their CHP information.

meeting was held on April 16, 2019. The purpose of this meeting was to present and discuss the findings of the first CHP Biennial Report, discuss the upcoming CHP Market Potential Assessment,<sup>6</sup> and the Standby/Capacity Reservation charges best practices.<sup>7</sup>

## Biennial Report Information

Installation of a CHP system involves a great deal of planning and financial considerations, and by its very nature, is a capital expenditure with a long service life. CHP systems also take a great deal of time to install and become fully operational, during which time changes in needs, finances, and the marketplace may affect whether a CHP system is actually deployed. Thus, it is not uncommon for a CHP system to be planned, and for discussions to occur between an EDC and/or a NGDC only for the system to never come to fruition. As such, several of the potential systems reported in this report were also listed as potential in the prior biennial report. Similarly, because CHP systems have a long service life, most of the systems that have been reported as interconnected in the first biennial report are still interconnected and operational.

Consistent with prior biennial reports, some information required research and verification by TUS staff, mainly through web-scraping exercises. Aside from this, the information submitted was accepted as received. In addition, TUS provided a more thorough picture of the amount of CHP in Pennsylvania by including anaerobic digesters and other known CHP systems that were unreported by EDCs and NGDCs. This is not to say that the EDCs and NGDCs were lax in reporting these as most of these systems are unique to biogas applications and likely not as fully understood by the utilities or may exist within the service area of a rural electric cooperative or municipal authority.

It is important to note that the reporting effort may not constitute a complete list of all CHP systems in Pennsylvania for two main reasons. First, systems deployed in areas not

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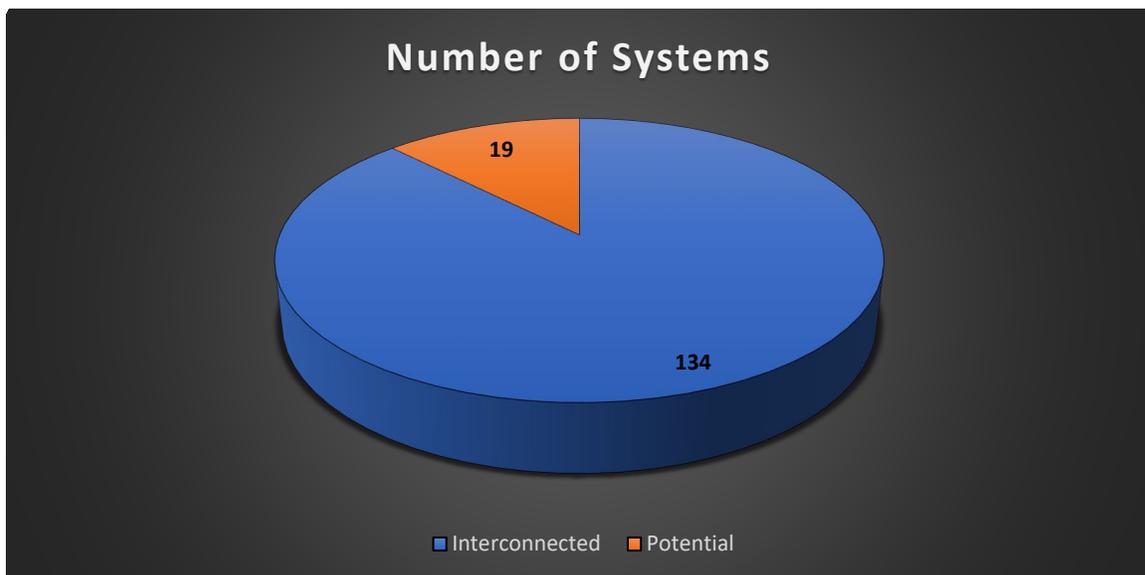
<sup>6</sup> The CHP Market Potential Assessment was conducted by the SWE as a part of the larger [Pennsylvania Act 129 Phase IV Energy Efficiency and Peak Demand Reduction Market Potential Study](https://www.puc.pa.gov/pcdocs/1656474.pdf). The purpose of the study is to determine the potential for energy efficiency and peak demand reductions available in Pennsylvania. See <https://www.puc.pa.gov/pcdocs/1656474.pdf>.

<sup>7</sup> See [https://www.puc.pa.gov/Electric/pdf/CHPWG/CHP\\_Standby\\_Capacity\\_Reservation\\_Charge041619.pdf](https://www.puc.pa.gov/Electric/pdf/CHPWG/CHP_Standby_Capacity_Reservation_Charge041619.pdf) for the information presented on Standby/Reservation charges.

served by either an EDC or NGDC could be missed by this reporting initiative and, second, systems such as biogas digester CHPs may be poorly understood by the utilities and go unnoticed. This is the primary reason why there is a difference in the number of CHP systems reported here compared to the U.S. DOE’s CHP Installation Database. Some information may have required different levels of data collection and outreach by the utilities and was dependent upon the CHP system owner to provide the requested information. Because of that, some information was not obtainable, available, or known. Furthermore, the reporting of potential<sup>8</sup> CHP systems should not be considered as a full and complete assessment of CHP potential within the Commonwealth.

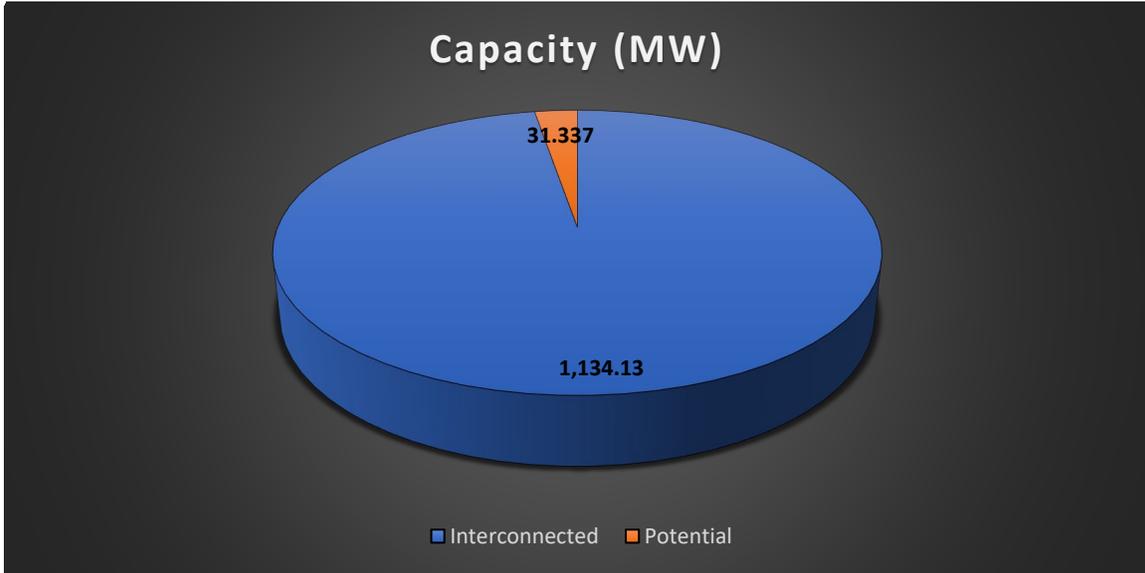
Figures 1 and 2 show the number of interconnected and potential CHP systems and the nameplate capacity of those systems, respectively. New in this report we see a large increase in the aggregate nameplate capacity due to the Shell ethane cracker plant that began operations in Beaver County in late 2022. This single site accounted for most of the increase in the nameplate capacity from the prior CHP biennial report.

*Figure 1. Number of Interconnected and Potential CHP systems, as Reported by EDCs and NGDCs, and TUS research*



<sup>8</sup> In the context of this report, “potential” means any CHP system that is not yet fully operational. These could be CHP systems that are in various phases of construction or could mean that the EDC or NGDC has had some level of conversation with a customer about the possibility of installing a CHP system. The EDCs and NGDCs had discretion as to what they deemed a potential system.

Figure 2. Nameplate Capacity of Interconnected and Potential CHP Systems, as Reported by EDCs and NGDCs, and TUS research



Figures 3 and 4 show the number of CHP systems based on nameplate capacity for interconnected and potential systems, respectively. Please note that Figure 3 represents *all* interconnected systems, not just those reported by EDCs and NGDCs.

Figure 3. Number of Interconnected CHP Systems Based on Nameplate Capacity

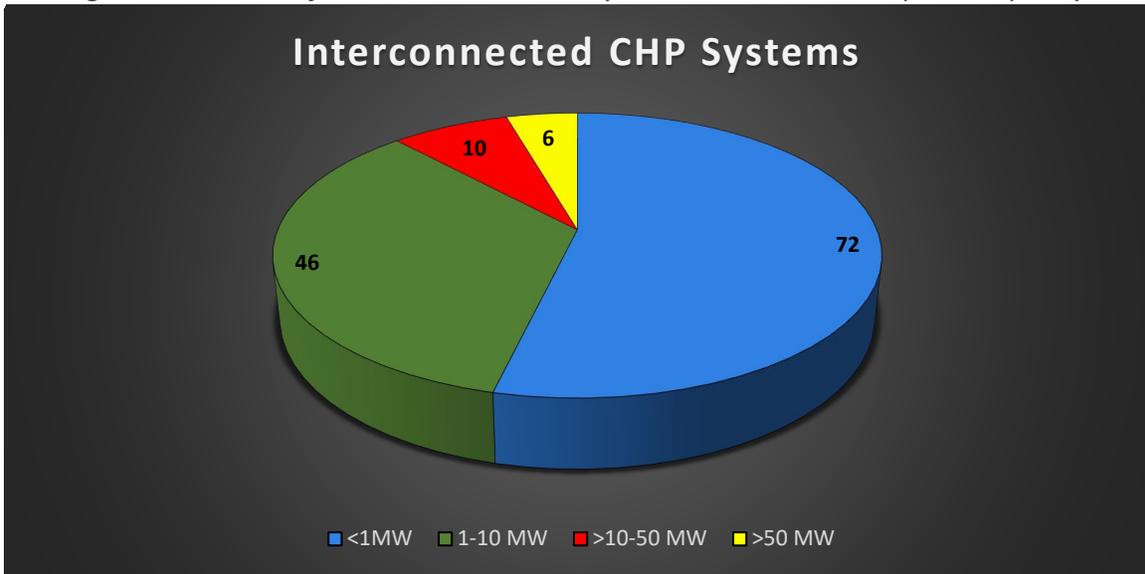
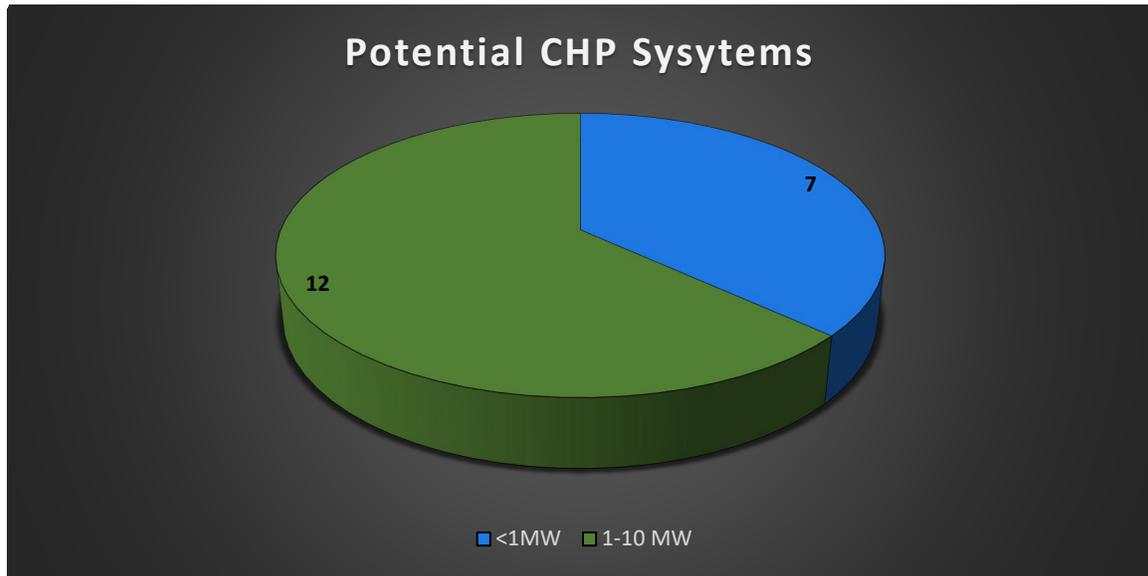


Figure 4. Number of Potential CHP Systems Based on Nameplate Capacity as reported by EDCs and NGDCs



Figures 5 and 6 give a breakdown of the interconnected CHP systems, by EDC. Figure 5 shows the number of interconnected CHP systems by EDC. Figure 6 shows each EDC's percentage of the total nameplate capacity (MW) reported. It should be noted that the sum of EDC-interconnected systems does not equal the total number of CHP systems since some CHP systems have been reported by NGDCs and not by EDCs. Due to space constraints, values are rounded to the nearest whole number. In addition, the former FirstEnergy EDCs (MetEd, Penelec, Penn Power, and West Penn Power) have merged since

the last CHP biennial report. Thus, the CHP systems for all four legacy FirstEnergy EDCs are consolidated into one EDC, FirstEnergy.

Figure 5. Number of Interconnected CHP Systems by EDC

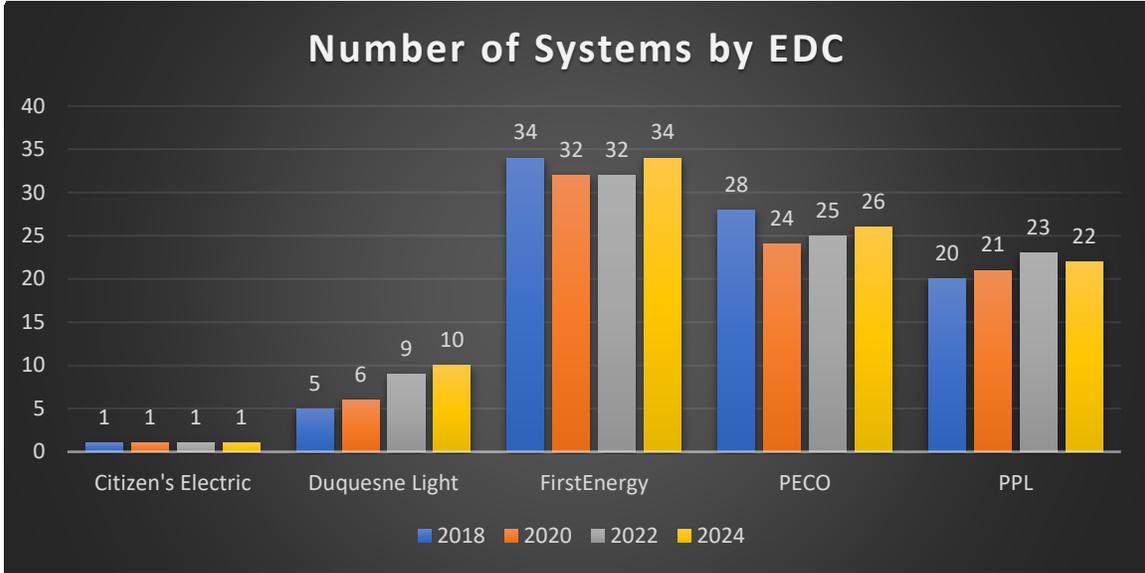
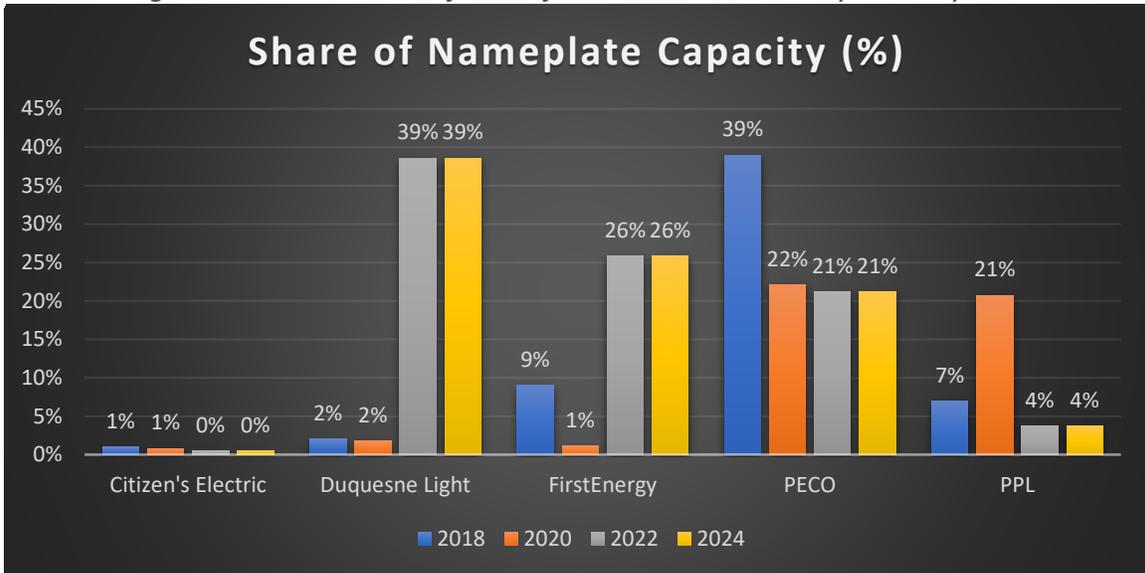


Figure 6. Percent Share of MW of Interconnected CHP Systems by EDC



Figures 7 and 8 show both the interconnected and potential CHP systems by technology type. The newly constructed Shell ethane cracker plant has five CHP units onsite; three of these are combustion turbines and two are steam turbines. Thus, because

both technologies are listed for this site, the total does not match the number of sites in Appendix B.

Figure 7. Interconnected CHP Technologies

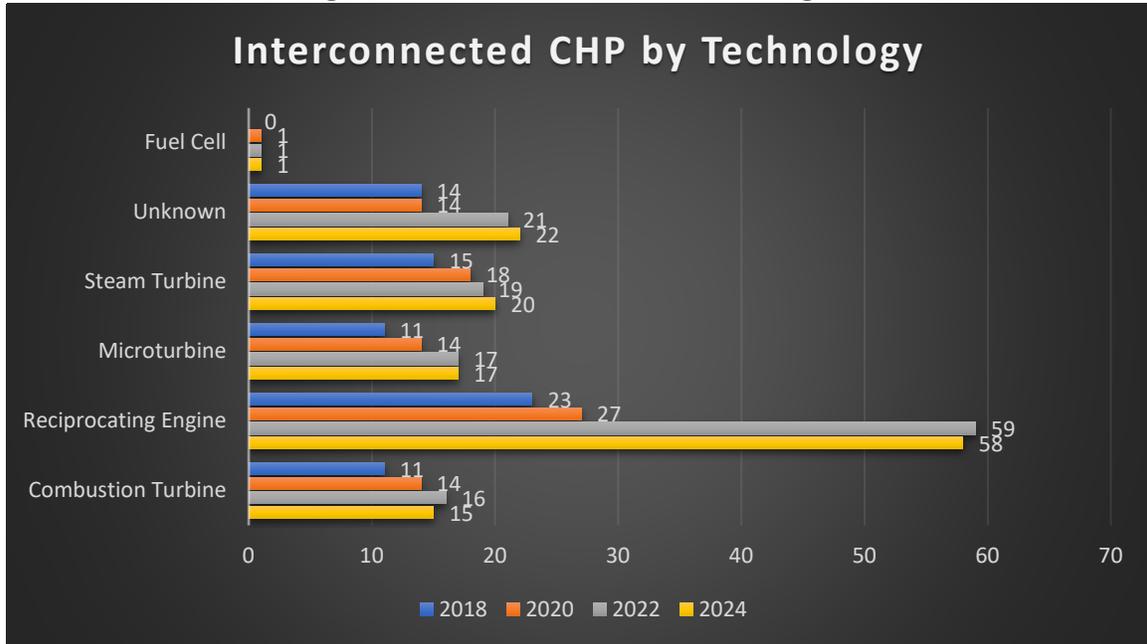
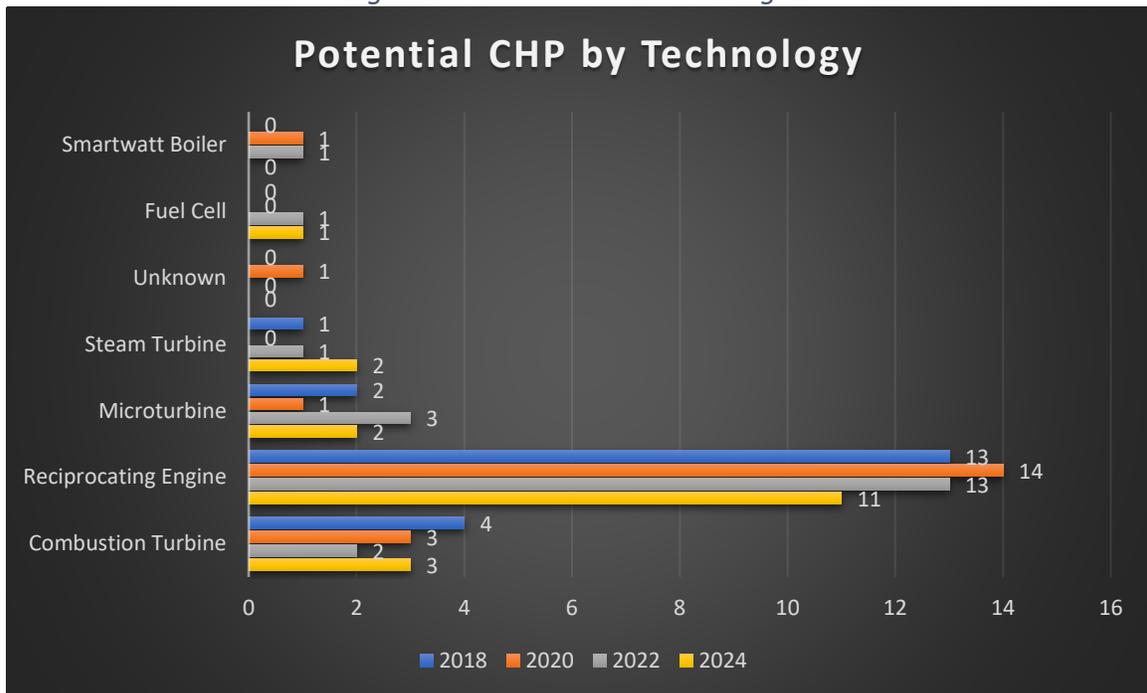


Figure 8. Potential CHP technologies



In the following appendices information about proposed and operational CHP systems that were reported by the EDCs and NGDCs is provided. The lists in the appendices are organized alphabetically by County and then by CHP system name.

## Appendix A - Proposed CHP Systems\*

CHP System	Status	County	Identified by		Prime Mover Type	Nameplate Capacity (MW)	Fuel Type	Thermal Energy Type
			EDC	NGDC				
Confidential	Unknown	Allegheny		X	Reciprocating Engine	3.334	Natural Gas	Hot Water
Confidential	Unknown	Allegheny		X	Combustion Turbine	6.3	Natural Gas	Steam
Confidential	Unknown	Beaver		X	Reciprocating Engine	0.537	Natural Gas	Hot Water
Confidential	Unknown	Bucks		X	Reciprocating Engine	1.062	Natural Gas	Heat & Steam
Confidential	Unknown	Clearfield		X	Reciprocating Engine	1	Natural Gas	Hot Water
Confidential	Unknown	Clearfield		X	Reciprocating Engine	0.55	Natural Gas	Steam & Hot Water
Confidential	Unknown	Dauphin	X	X	Combustion Turbine	2	Natural Gas	Heat & Hot Water
Confidential	Unknown	Lancaster	X		Reciprocating Engine	1.141	Natural Gas	Heat & Cooling
Confidential	Unknown	Lawrence	X		Steam Turbine	2.4	Natural Gas	Steam
Confidential	Unknown	Lawrence	X		Steam Turbine	2.5	Natural Gas	Steam
Confidential	Unknown	Lehigh	X		Reciprocating Engine	.843	Natural Gas	Heat
Confidential	Unknown	Montgomery	X	X	Fuel Cell	1.3	Hydrogen	Unknown
Confidential	Unknown	Philadelphia	X	X	Reciprocating Turbine	0.07	Natural Gas	Hot Water
Confidential	Unknown	Philadelphia	X	X	Microturbine	0.13	Natural Gas	Unknown
Confidential	Unknown	Philadelphia	X	X	Microturbine	0.13	Natural Gas	Hot Water
Confidential	Unknown	Philadelphia	X	X	Reciprocating Engine	0.14	Natural Gas	Hot Water
Confidential	Unknown	Philadelphia	X	X	Reciprocating Engine	0.45	Natural Gas	Hot Water
Confidential	Unknown	Philadelphia	X		Reciprocating Engine	5.8	Natural Gas	Steam
Confidential	Unknown	Westmoreland		X	Reciprocating Engine	1.2	Natural Gas	Hot Water

**\*Status:**

Start-up – initial operation has begun but system not operating steady-state

Construction – under construction at the time reports were being filed; may now be operational

Planning – system is in some stage of development but not yet in construction

Unknown – prospective system has been identified but no further information is available

## Appendix B - Interconnected CHP Systems

CHP System	County	Identified by		Prime Mover Type	Nameplate Capacity (MW)	Fuel Type	Thermal Energy Type
		EDC	NGDC				
Hillandale Gettysburg	Adams	X		Steam Turbine	3.24	Natural Gas	Steam
Knouse Foods	Adams	X	X	Combustion Turbine	1.2	Natural Gas/Biogas	Steam
Mason Dixon Farms	Adams			Reciprocating Engine	0.6	Biogas	Digester Temperature Control, Heating
Allegheny Health Network	Allegheny	X	X	Reciprocating Engine	2.2	Natural Gas	Hot Water
Chatham University	Allegheny		X	Reciprocating Engine	0.02	Natural Gas	Hot Water
Duquesne University	Allegheny	X	X	Combustion Turbine	5.3	Natural Gas	Steam, Hot & Chilled Water
Energy Innovation Center	Allegheny	X	X	Microturbine	0.13	Natural Gas	Hot & Chilled Water
Residential	Allegheny	X		Microturbine	0.005	Natural Gas	Hot Water
Peoples Etna Office	Allegheny	X	X	Reciprocating Engine	0.035	Natural Gas	Hot Water
Robotany Microgrid	Allegheny	X		Reciprocating Engine	1.732	Natural Gas	Unknown
South Hills Retirement	Allegheny	X	X	Microturbine	0.065	Natural Gas	Hot Water
U.S. Steel - Clairton	Allegheny	X		Unknown	25	Coke Gas	Unknown
U.S. Steel - Edgar Thomson	Allegheny	X		Unknown	52	Coke Gas	Unknown
G & D Medical Properties	Beaver	X	X	Reciprocating Engine	0.07	Natural Gas	Hot Water
Shell	Beaver	X		Steam & Gas Turbines	353.55	Natural Gas	Unknown
DAK Americas, LLC	Berks		X	Reciprocating Engine	4.4	Natural Gas	Steam, Hot Water
Reading Hospital	Berks	X	X	Steam Turbine	10	Natural Gas	Steam
Norfolk Southern	Blair	X	X	Steam Turbine	2	Natural Gas	Steam, Hot Water
Penn England Farm	Blair			Reciprocating Engine	0.16	Biogas	Digester Temperature Control, Hot Water
American Refining Group	Bradford	X		Steam Turbine	2	Natural Gas	Steam
Jeld-Wen/Craftmasters	Bradford	X		Steam Turbine	1	Natural Gas	Steam

Robert Packer Hospital	Bradford	X	X	Steam Turbine	2	Natural Gas	Steam
Abzena	Bucks	X	X	Microturbine	0.26	Natural Gas	Unknown
Doylestown Hospital	Bucks	X	X	Reciprocating Engine	1.6	Natural Gas	Unknown
Seneca Landfill	Butler		X	Reciprocating Engine	0.3	Biogas	Hot Water
Dept. of L&I GH Andrews Center	Cambria	X		Steam Turbine	0.45	Natural Gas	Steam
DLP Conemaugh Medical Center	Cambria	X		Steam Turbine	2	Natural Gas	Steam
Penn State University 1	Centre	X	X	Steam Turbine	7	Natural Gas	Steam
Penn State University 2	Centre		X	Combustion Turbine	6	Natural Gas	Steam
Clarion Boards	Clarion	X	X	Steam Turbine	17.6	Natural Gas	Steam
Croda, Inc.	Clinton	X	X	Microturbine	1	Natural Gas	Steam, Hot Water
Schrack Farms	Clinton			Reciprocating Engine	0.2	Biogas	Digester Temperature Control, Hot Water
Bortnick Dairy	Crawford			Reciprocating Engine	0.45	Biogas	Digester Temperature Control
Defense Logistics Agency	Cumberland		X	Combustion Turbine	0.42	Natural Gas	Hot Water
Messiah College	Cumberland	X	X	Microturbine	1	Natural Gas	Hot Water
Hard Earned Acres, Inc.	Cumberland			Reciprocating Engine	0.135	Biogas	Unknown
Mains Farm	Cumberland			Reciprocating Engine	0.074	Biogas	Digester Temperature Control, Hot Water
Derry Township Municipal Authority	Dauphin	X	X	Reciprocating Engine	2	Natural Gas/Biogas	Digester Temperature Control
Hershey Medical Center	Dauphin	X	X	Combustion Turbine	6.7	Natural Gas	Steam
Phoenix Contact	Dauphin	X	X	Microturbine	1	Natural Gas	Hot & Chilled Water
PSECU	Dauphin	X	X	Microturbine	0.8	Natural Gas	Hot Water
The Hershey Company	Dauphin		X	Reciprocating Engine	0.8	Renewable Gas/Natural Gas	Unknown
UGI Utilities, Middletown	Dauphin		X	Microturbine	0.13	Natural Gas	Hot Water
Kimberly-Clark	Delaware	X	X	Combustion Turbine	23	Natural Gas	Steam
Domtar Paper Company	Elk	X		Steam Turbine	60	Natural Gas	Steam

Westmoreland Biogas LLC	Fayette		X	Reciprocating Engine	2	Natural Gas/Biogas	Unknown
Duffield Farm	Franklin			Reciprocating Engine	0.1	Biogas	Unknown
Slate Ridge Farm	Franklin			Reciprocating Engine	0.6	Biogas	Grain Drying
Borough of Chambersburg/Blue Ridge Landfill	Franklin			Unknown	6.4	Landfill Gas	Unknown
Indiana University of PA	Indiana		X	Reciprocating Engine	24	Natural Gas/Diesel	Steam, Hot Water
Confidential	Indiana		X	Fuel Cell	0.005	Natural Gas	Hot Water
Brookside Dairy	Indiana			Reciprocating Engine	0.85	Biogas	Digester Temperature Control, Hot Water
Myron Gehman	Juniata			Reciprocating Engine	0.225	Biogas	Unknown
Reinford Farms Inc.	Juniata			Reciprocating Engine	0.14	Biogas	Heat, Hot Water
Reinford-Freymoyer LLC	Juniata			Reciprocating Engine	0.175	Biogas	Unknown
Lackawanna County Prison	Lackawanna	X	X	Reciprocating Engine	0.225	Natural Gas	Hot Water
Brubaker Farms	Lancaster	X		Reciprocating Engine	0.335	Biogas	Process Heating
Dart Container	Lancaster	X		Reciprocating Engine	11.4	Biomass/Landfill Gas	Unknown
Eden Resort	Lancaster	X	X	Reciprocating Engine	0.4	Natural Gas	Hot Water
F&M College	Lancaster	X	X	Reciprocating Engine	1	Natural Gas	Steam, Hot Water
Lancaster General Hospital	Lancaster	X	X	Combustion Turbine	3.2	Natural Gas	Steam, Hot Water
Masonic Homes	Lancaster	X	X	Microturbine	0.39	Natural Gas	Hot Water
Jay C & Andrea Sensenig	Lancaster			Reciprocating Engine	0.1	Biogas	Digester Temperature Control, Hot Water
Klines Services Inc.	Lancaster			Unknown	0.6	Biogas	Digester Temperature Control
Landyshade Farms	Lancaster			Reciprocating Engine	0.08	Biogas	Unknown
Oregon Dairy Farm	Lancaster			Reciprocating Engine	0.12	Biogas	Digester Temperature Control, Heating, Hot Water
S&A Kreider and Sons Inc.	Lancaster			Reciprocating Engine	0.58	Biogas	Unknown
UGI Headquarters	Lancaster	X	X	Microturbine	0.13	Natural Gas	Hot & Chilled Water

Wanner's Pride-N-Joy Farm	Lancaster			Reciprocating Engine	0.13	Biogas	Digester Temperature Control, Hot Water
Yippee Farms/Arlin Benner	Lancaster			Reciprocating Engine	0.38	Biogas	Heat & Hot Water
Bayer Healthcare	Lebanon		X	Reciprocating Engine	2	Natural Gas	Heat & Hot Water
Downs Racing	Luzerne	X	X	Reciprocating Engine	0.828	Natural Gas	Hot Water
Geisinger Health - Wyoming Valley	Luzerne	X	X	Combustion Turbine	1.125	Natural Gas	Steam, Hot & Chilled Water
Pepsico/Gatorade	Luzerne	X	X	Steam Turbine	2	Natural Gas	Hot Water
Williamsport Hospital	Lycoming	X	X	Reciprocating Engine	1.9	Natural Gas	Unknown
Hermitage Municipal Authority	Mercer			Unknown	0.8	Biogas	Unknown
Kish-View Farms	Mifflin			Reciprocating Engine	0.18	Biogas	Unknown
Abington Hospital	Montgomery	X	X	Combustion Turbine	4.6	Natural Gas	Steam
Holy Redeemer Hospital	Montgomery	X	X	Reciprocating Engine	2	Natural Gas	Hot Water
Janssen (Johnson & Johnson)	Montgomery	X	X	Reciprocating Engine	3.8	Natural Gas	Steam, Hot Water
Merck & Co. 1	Montgomery	X	X	Combustion Turbine	38	Natural Gas	Steam
Merck & Co. 2	Montgomery	X	X	Combustion Turbine	27	Natural Gas	Steam
Valley Forge Casino & Resort	Montgomery	X	X	Microturbine	0.065	Natural Gas	Hot Water
Villanova University	Montgomery	X	X	Reciprocating Engine	2	Natural Gas	Steam
Geisinger Hospital	Montour	X	X	Combustion Turbine	5	Natural Gas	Steam, Hot & Chilled Water
FreshPet	Northampton	X	X	Reciprocating Engine	1.429	Natural Gas	Steam, Hot Water
Green Energy Park by Chrin Brothers	Northampton			Unknown	3.2	Landfill Gas	Unknown
Furmano Foods	Northumberland			Reciprocating Engine	0.25	Biogas	Unknown
1199 Ludlow	Philadelphia		X	Unknown	0.13	Natural Gas	Hot Water
1500 Locust LTD	Philadelphia	X	X	Microturbine	0.13	Natural Gas	Hot Water
AIMCO - Sterling Apt. Homes	Philadelphia		X	Unknown	0.21	Natural Gas	Heat, Hot Water
AIMCO - Univ. Sq.	Philadelphia		X	Unknown	0.14	Natural Gas	Heat, Hot Water
AIMCO -39	Philadelphia		X	Unknown	0.14	Natural Gas	Heat, Hot Water
Aria Health - Torresdale Campus	Philadelphia	X		Reciprocating Engine	1.1	Natural Gas	Hot Water

Cancer Treatment Center of America (Eastern Regional Medical Center)	Philadelphia	X	X	Reciprocating Engine	1.1	Natural Gas	Heat, Hot Water, A/C
Cathedral Village	Philadelphia	X	X	Unknown	0.225	Natural Gas	Heat, Hot Water, A/C
FMC Tower	Philadelphia	X	X	Microturbine	0.13	Natural Gas	Hot Water
Grays Ferry Cogen	Philadelphia	X		Combustion Turbine	118	Natural Gas	Steam
Imperial Tower Apts.	Philadelphia		X	Unknown	0.065	Natural Gas	Heat, Hot Water
Independence Visitor Center	Philadelphia	X	X	Reciprocating Engine	0.075	Natural Gas	Heat, Hot Water, A/C
Lima Co.	Philadelphia		X	Unknown	0.035	Natural Gas	Heat, Hot Water
Logan Hotel	Philadelphia	X	X	Microturbine	0.18	Natural Gas	Heat, Hot Water, A/C
Newman & Company	Philadelphia	X		Steam Turbine	1.8	Natural Gas/Fuel Oil	Steam
Park Towne Place East	Philadelphia	X	X	Unknown	0.21	Natural Gas	Heat, Hot Water, A/C
Park Towne Place West	Philadelphia	X	X	Unknown	0.21	Natural Gas	Heat, Hot Water, A/C
PGW	Philadelphia		X	Unknown	0.2	Natural Gas	Heat, Hot Water, A/C
PGW Northeast Operations Center	Philadelphia	X	X	Microturbine	.13	Natural Gas	Heat & Hot Water
Phil. College Osteo Medicine	Philadelphia		X	Unknown	0.13	Natural Gas	Heat
Phil. Industrial Dev. Corp.	Philadelphia		X	Unknown	8	Natural Gas	Unknown
Rittenhouse Claridge	Philadelphia	X	X	Reciprocating Engine	0.225	Natural Gas	Heat, Hot Water
SEPTA - Midvale Junction	Philadelphia	X	X	Combustion Turbine	7.8	Natural Gas	Hot Water
Sewage Plant (City of Philly)	Philadelphia	X	X	Reciprocating Engine	5.67	Natural Gas/Biogas	Hot Water
Simpson House	Philadelphia	X	X	Reciprocating Engine	0.265	Natural Gas	Heat, Hot Water
TJMAXX	Philadelphia		X	Unknown	3	Natural Gas	Unknown
Urban Outfitters	Philadelphia		X	Unknown	0.8	Natural Gas	Unknown
Four Winds Farm	Potter			Reciprocating Engine	0.13	Biogas	Digester Temperature Control, Hot Water
Yuengling Brewery	Schuylkill	X	X	Reciprocating Engine	0.86	Methane/Natural Gas	Hot Water
Yuengling Creamery	Schuylkill	X		Reciprocating Engine	0.18	Biogas/Natural Gas	Anaerobic Digester Heating & Space Heating

David High Farm	Snyder			Reciprocating Engine	0.022	Biogas	Digester Temperature Control, Hot Water
Ideal Family Farms	Snyder			Reciprocating Engine	0.12	Biogas	Digester Temperature Control, Heating
Dovan Farms	Somerset			Reciprocating Engine	0.8	Biogas	Digester Temperature Control, Hot Water
Hillcrest Saylor's Farm	Somerset			Reciprocating Engine	0.13	Biogas	Digester Temperature Control, Hot Water
SCI Laurel Highlands	Somerset	X	X	Steam Turbine	6.8	Methane/Natural Gas	Steam
Somerset County Conservation District	Somerset			Reciprocating Engine	0.17	Biogas	Unknown
Drew Remley Farm	Tioga			Reciprocating Engine	0.22	Biogas	Unknown
Bucknell University	Union	X	X	Combustion Turbine	5.5	Natural Gas/Oil	Steam
Evangelical Community Hospital	Union			Unknown	Unknown	Biomass	Unknown
United Refining Company	Warren	X		Steam Turbine	29	Natural Gas	Unknown
Firestone	Westmoreland		X	Microturbine	0.065	Natural Gas	Hot Water
Proctor & Gamble 1	Wyoming	X	X	Steam Turbine	57.8	Natural Gas	Steam
Proctor & Gamble 2	Wyoming	X		Steam Turbine	53	Natural Gas	Steam
PH Glatfelter	York	X		Steam Turbine	35	Black Liquor	Steam
York Solid Waste Authority	York		X	Steam Turbine	42	Solid Waste/Natural Gas	Steam

## Appendix C – Government Agency Funded CHP Systems

The following CHP systems have been identified as being awarded grant or loan funding by government agencies, with the exception of the Shell Petrochemical Plant. This entity receives tax credits through the Pennsylvania Resource Manufacturing Tax Credit, and as such the maximum amount of tax credit allowable by law is listed for the duration of the tax credit. The list below was produced with the help of the Department of Community and Economic Development (DCED) and the Department of Environmental Protection (DEP). It should be noted that although these entities were awarded funding, it does not mean that the projects were completed using any, or all, of the funding that was awarded, nor receives the full amount of tax credit possible. TUS also utilized Environmental Protection agency’s Livestock Anaerobic Digester Database to locate CHP systems located on farms and that were awarded USDA funding.

In addition, TUS staff has attempted to identify which of these systems were completed, or in some stage of construction, through web-scraping exercises, cross-referencing known systems, and communication with other reporting entities such as the EDCs, NGDCs, DCED, and DEP. TUS makes no guarantees that the following systems are still operational, though systems below that have also been reported by EDCs and NGDCs are likely still operational.

CHP System	County	Funding Source	Project Type	Nameplate Capacity (MW)	Awarded Grant	Awarded Loan	Operational
Hillandale Gettysburg	Adams	CFA	Biomass Gasification	2.5		\$5,000,000	Yes
Knouse Foods	Adams	PEDA 2014	CHP	1.2	\$1,000,000	n/a	Yes
Knouse Foods Coop Inc.	Adams	CFA	CHP	1.2	\$780,062	n/a	Yes
Duquesne University	Allegheny	CFA	CHP	5.3	\$2,000,000	n/a	Yes
Peoples Natural Gas	Allegheny	CFA	CHP	2	\$1,794,059	n/a	Yes
Shell*	Beaver	PRM	CHP	353.55	~ \$1.7 billion	n/a	Yes
Albright College	Berks	CFA	CHP	1		\$151,748	No
		SEP-PEDA 2010 ARRA	CHP	1	\$846,000	n/a	No
Penn England Farm	Blair	USDA	Anaerobic Digester	0.16	Unknown	Unknown	Yes
Jeld-Wen/Craftmaster Manufacturing Inc.	Bradford	SEP-Green Energy CHP	CHP	1.34	\$1,358,868	n/a	Yes
Global Tungsten & Powders Corp	Bradford	CFA	CHP	7.3	\$2,000,000	0	Unknown
Robert Packer Hospital	Bradford	CFA	CHP	2	\$1,589,139	n/a	Yes
Abzena	Bucks	SEP-PEDA 2008	CHP	0.26	\$1,000,000	n/a	Yes
Doylestown Hospital	Bucks	CFA	CHP	1.6	\$442,273	n/a	Yes
Seneca Landfill	Butler	CFA	CHP	0.3		\$712,110	Yes

Oak Spring Farms	Centre	CFA	Anaerobic Digester	0.285	\$625,062	n/a	Unknown
Oak Spring Farms	Centre	CFA	Anaerobic Digester	0.19	\$625,082	n/a	Unknown
Hickory Hollow Farms	Chester	CFA	Anaerobic Digester	0.1	\$365,690	n/a	Unknown
Paris Cleaners	Clearfield	CFA	CHP	0.874	\$43,000	n/a	Yes
Croda, Inc.	Clinton	CFA	CHP	1	\$950,000	n/a	Yes
Autoneum North America Inc.	Columbia	CFA	CHP	2	\$1,000,000	\$522,968	Unknown
Bortnick Dairy	Crawford	USDA	Anaerobic Digester	0.45	Unknown	Unknown	Yes
Dickinson College	Cumberland	CFA	CHP	1		\$1,225,000	Unknown
East Pennsboro Township	Cumberland	SEP-Green Energy CHP	CHP	0.117	\$500,000	n/a	Yes
Hard Earned Acres Inc.	Cumberland	CFA	Anaerobic Digester	0.135	\$300,115	0	Yes
		USDA	Anaerobic Digester		Unknown	Unknown	
Derry Township Municipal Authority	Dauphin	SEP-Green Energy Biogas	Biogas	0.233	\$500,000	n/a	Yes
Phoenix Contact Services, Inc.	Dauphin	CFA	CHP	1	\$975,000	n/a	Yes
The Pennsylvania State University	Dauphin	CFA	CHP	6	\$940,000	n/a	Yes
LCP Generation Partners	Delaware	CFA	CHP	2	\$965,000	n/a	Yes
Borough of Chambersburg/Blue Ridge Landfill	Franklin	CFA	Landfill Gas	6.4	\$900,000	n/a	Yes
Myron Gehman	Juniata	CFA	Digester Systems	0.225	\$607,081	n/a	Yes
Reinford Farms Inc.	Juniata	CFA	Anaerobic Digester	0.14	\$1,007,000	n/a	Yes
		USDA			Unknown	Unknown	
Reinford-Freymoyer LLC	Juniata	CFA	Anaerobic Digester	0.175	\$388,113	0	Yes
Lackawanna County Commissioners	Lackawanna	CFA	CHP	0.225	\$302,816	n/a	Yes
Brubaker Farms LLC	Lancaster	CFA	Anaerobic Digester	0.4	\$725,013	n/a	Yes
		USDA			Unknown	Unknown	
Eden Resort	Lancaster	CFA	CHP	0.333	\$337,930	n/a	Yes

Sensenig Farms	Lancaster	CFA	Anaerobic Digester	0.1	\$575,000	n/a	Yes
		USDA			Unknown	Unknown	
Klines Services Inc.	Lancaster	PEDA 2010 GG II	Anaerobic Digester	0.6	\$250,000	n/a	Yes
Lancaster General Hospital	Lancaster	CFA	CHP	3.5	\$1,300,000	n/a	Yes
MBC Developers L.P./Franklin & Marshall College	Lancaster	CFA	CHP	1.2	\$614,000	\$939,000	Yes
Mount Joy Wire Corporation	Lancaster	SEP-Green Energy CHP	CHP	1	\$1181,250	n/a	Yes
Wanner's Pride-N-Joy Farm	Lancaster	USDA	Anaerobic Digester	0.13	Unknown	Unknown	Yes
S&A Kreider and Sons Inc.	Lancaster	CFA	Anaerobic Digester	0.58	\$632,848	n/a	Yes
Yippee Farms/Arlin Benner	Lancaster	CFA	Anaerobic Digester	0.38	\$838,690	0	Yes
		USDA	Anaerobic Digester		Unknown	Unknown	
Bayer Healthcare LLC	Lebanon	CFA	CHP	2	\$1,541,347	n/a	Yes
Downs Racing L.P./Mohegan Tribal Gaming Authority	Luzerne	CFA	CHP	0.75	\$950,000	n/a	Yes
The Williamsport Hospital & Medical Center	Lycoming	SEP-PEDA 2008	CHP	1.9	\$1,000,000	n/a	Yes
American Refining Group Inc.	McKean	SEP-Green Energy CHP	CHP	0.875	\$831,072	n/a	Yes
Hermitage Municipal Authority	Mercer	SEP-Green Energy Biogas	Anaerobic Digester	0.8	\$350,000	n/a	Yes
Abington Memorial Hospital	Montgomery	SEP-Green Energy CHP	CHP	4.5	\$3,000,000	n/a	Yes
Arkema Inc	Montgomery	CFA	CHP	1.3	\$464,000	n/a	Yes
Clemens Food Group, LLC/Hatfield Quality Meats	Montgomery	CFA	CHP	4.4	\$2,000,000	n/a	Unknown
Geisinger Medical Center	Montour	SEP-Green Energy CHP	CHP	5	\$2,250,000	n/a	Yes
Easton Area Joint Sewer Authority	Northampton	CFA	Anaerobic Digester	0.66	\$1,737,000	n/a	Unknown
Freshpet Inc.	Northampton	CFA	CHP	1.137	\$694,928	n/a	Yes

Green Energy Park by Chrin Brothers	Northampton	SEP-PEDA 2009	Landfill Gas	3.2	\$1,000,000	n/a	Yes
Furmano Foods Inc.	Northumberland	SEP-Green Energy Biogas	Anaerobic Digester	0.25	\$850,000	n/a	Yes
Furmano Foods Inc.	Northumberland	CFA	Anaerobic Digester	0.25	\$1,750,000	n/a	Yes
Perry County Economic Development Authority	Perry	CFA	CHP	2.5		\$1,782,690	Unknown
Aria Health Systems	Philadelphia	PEDA 2014	CHP	1.1	\$500,000	n/a	Yes
ENER-G Rudox, Inc./Simpson House	Philadelphia	CFA	CHP	0.265	\$400,000	n/a	Yes
ENER-G Rudox, Inc./Cathedral Village	Philadelphia	CFA	CHP	0.265	\$500,000	n/a	Yes
OP Property Management, LLC	Philadelphia	SEP-Green Energy CHP	CHP	0.6	\$1,087,500	n/a	Yes
Philadelphia Gas Works	Philadelphia	SEP-Green Energy CHP	CHP	0.2	\$465,000	n/a	Yes
SFG RC CHP LLC/Rittenhouse Square Park	Philadelphia	CFA	CHP	0.225	\$150,000	n/a	Yes
Urban Outfitters	Philadelphia	CFA	Fuel Cell	0.2	\$432,000	n/a	Yes
Urban Outfitters	Philadelphia	CFA	Fuel Cell	0.6	\$1,274,843	n/a	Yes
Four Winds Farm	Potter	USDA	Anaerobic Digester	0.13	Unknown	Unknown	Yes
Keystone Potato Products LLC	Schuylkill	CFA	CHP	0.54	\$559,620	\$373,080	Unknown
Omnova Solutions Inc.	Schuylkill	CFA	CHP	1.5	\$1,115,464	n/a	Yes
Ideal Family Farms	Snyder	SEP-Green Energy Biogas	Anaerobic Digester	0.12	\$433,716	n/a	Yes
		USDA			Unknown	Unknown	
Dovan Farms	Somerset	USDA	Anaerobic Digester	0.8	Unknown	Unknown	Yes
Somerset County Conservation Dist.	Somerset	SEP- Energy Harvest	Anaerobic Digester	0.17	\$199,000	n/a	Unknown
Drew Remley Farm	Tioga	CFA	Anaerobic Digester	0.22	\$546,382	n/a	Yes
Evangelical Community Hospital	Union	PEDA 2011	Biomass	Unknown	\$250,000	n/a	Yes
Native Energy inc.	Westmoreland	SEP-Green Energy Biogas	Anaerobic Digester	0.1	\$893,752	n/a	Yes
PH Glatfelter Company	York	CFA	CHP	52.8	\$3,000,000	n/a	Yes

York City Sewer Authority	York	SEP-Green Energy Biogas	Anaerobic Digester	42	\$500,000	n/a	Yes
		CFA	CHP		0	\$1,500,000	Yes

\* The tax credit applies to the facility in its entirety, not just the CHP systems located there. It is not possible to determine the amount of funds that were directed to the CHP systems that operate here.

SEP – State Energy Plan

PEDA – Pennsylvania Energy Development Authority

CFA – Commonwealth Financing Authority

USDA – United States Department of Agriculture

PRM – Pennsylvania Resource Manufacturing Tax Credit. For more information on this tax credit, please visit [Pennsylvania Resource Manufacturing Tax Credit Report - Award Year 2023](#)

Biomass and Digester Systems are functionally similar to CHP in that these systems produce electrical and thermal energy.

A map, produced by DEP, is available to view the locations of these systems at <https://www.depgis.state.pa.us/EPOAlternativeEnergyViewer/>.



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