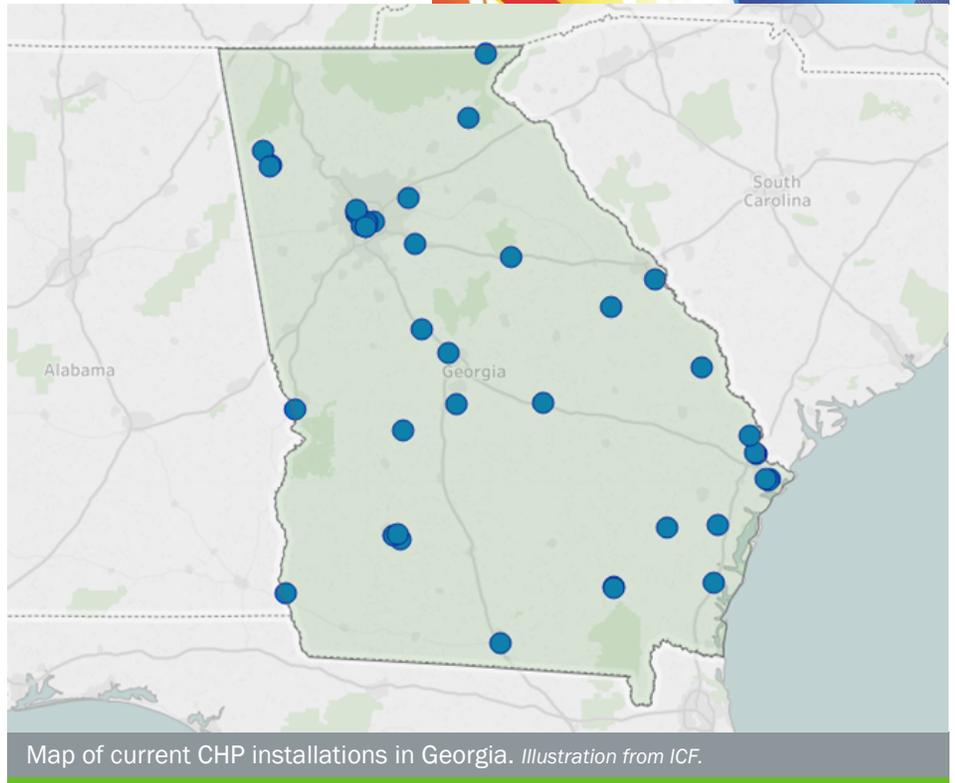


The State of CHP: Georgia



Combined heat and power (CHP) – also referred to as cogeneration – is an efficient and clean approach to generating on-site electric power and useful thermal energy from a single fuel source. The information in this document provides a general overview of the state of CHP in Georgia, with data on current installations, technical potential, and economics for CHP.



Georgia: Installed CHP

U.S. DOE Combined Heat and Power Installation Database

The DOE CHP Installation Database is a data collection effort sponsored by the U.S. Department of Energy. The database contains a comprehensive listing of combined heat and power installations throughout the country, including those in Georgia, and can be accessed by visiting energy.gov/chp-installs.

CHP Project Profiles

The Southeast CHP TAP has compiled information on certain illustrative CHP projects in Georgia. You can access these by visiting the Department of Energy’s CHP Project Profiles Database at energy.gov/chp-projects.

Southeast CHP Technical Assistance Partnership

For assistance with questions about specific CHP opportunities in Georgia, please consult with the Southeast CHP TAP by visiting sechtap.org or contacting the CHP TAP director.

Georgia Existing CHP

Sector	Sites	Capacity (MW)
Industrial	26	1,394
Commercial/Institutional	14	49
Other	2	2
Total	42	1,444

Southeast CHP TAP Director

Isaac Panzarella, P.E.

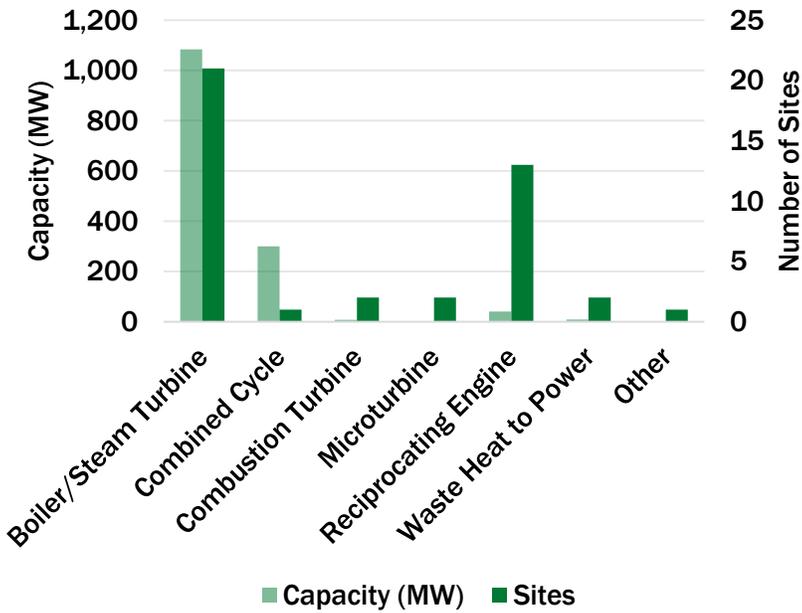
- North Carolina State University
- ipanarella@ncsu.edu
- 919-515-0354

SOUTHEAST

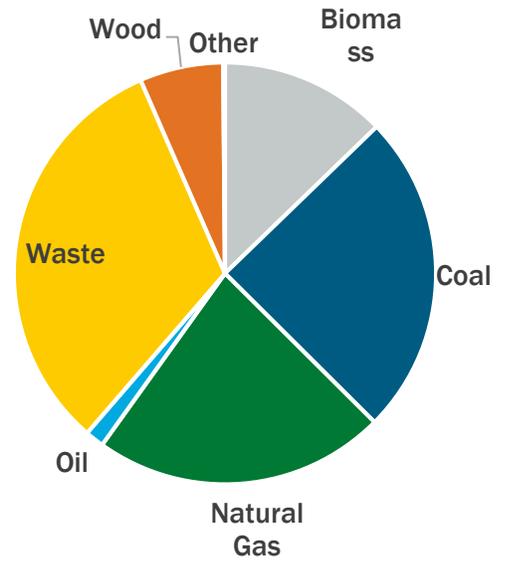


CHP
TECHNICAL ASSISTANCE
PARTNERSHIPS

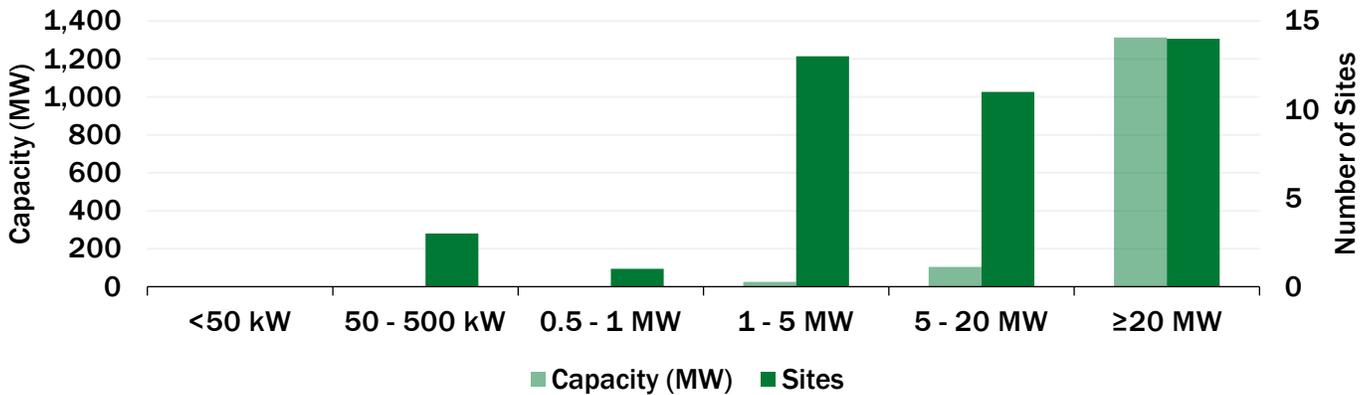
Georgia CHP by Technology



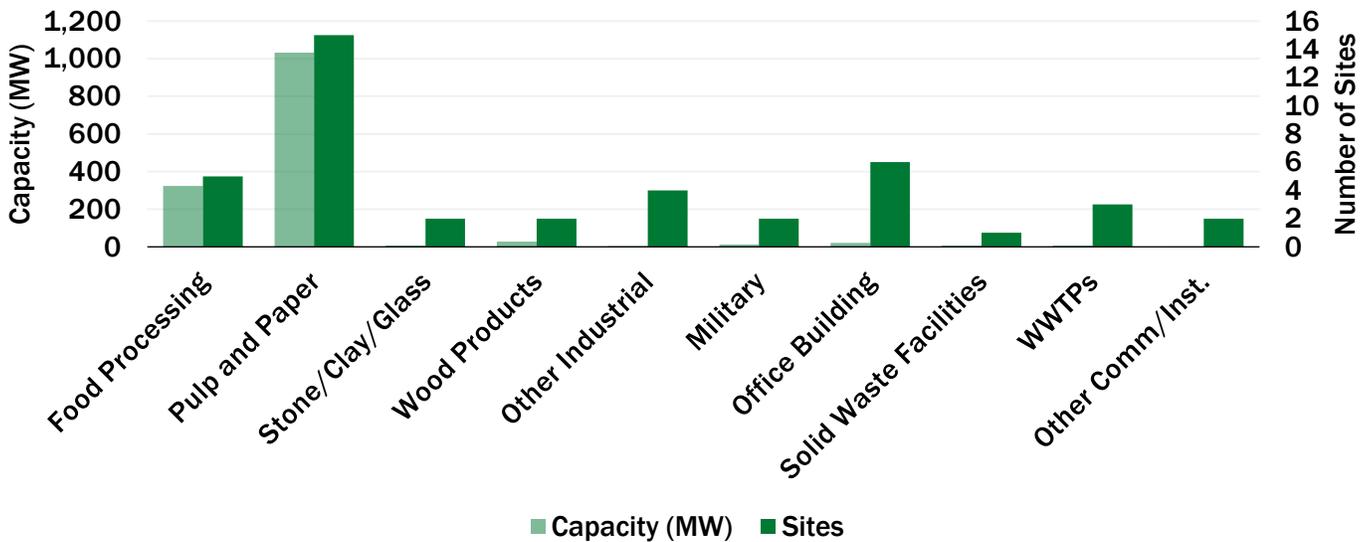
Georgia CHP Capacity (MW) by Fuel



Georgia CHP by Size Range



Georgia CHP by Application



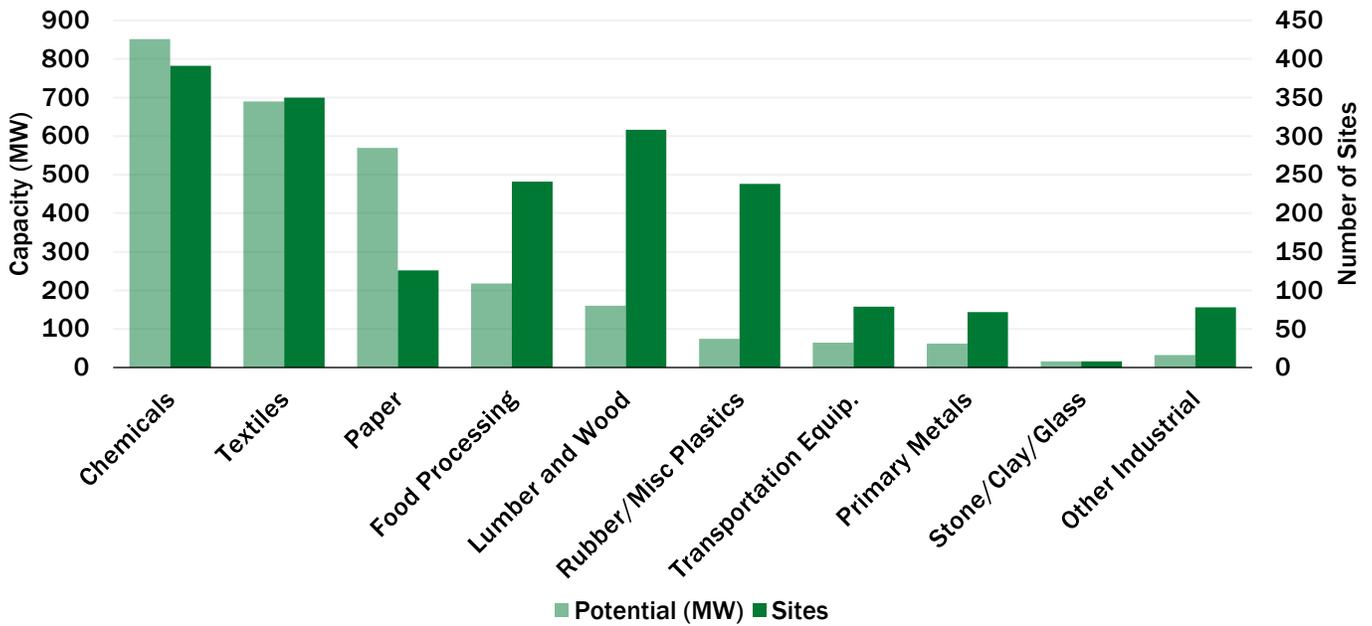
Georgia: Technical Potential for New CHP Installations

The “Combined Heat and Power (CHP) Technical Potential in the United States” market analysis report provides data on the technical potential in industrial facilities and commercial buildings for “topping cycle” CHP, waste heat to power (WHP) CHP, and district energy CHP in the U.S. This report can be accessed at energy.gov/chp-potential.

Georgia CHP Technical Potential

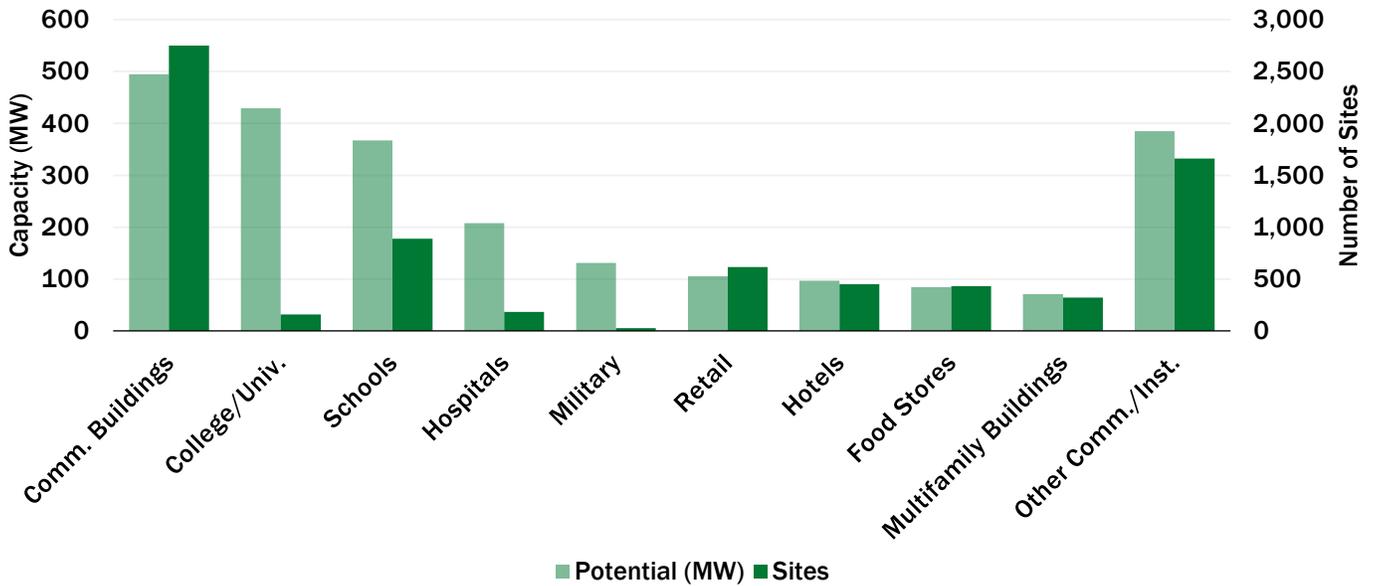
Sector	Potential Sites	Potential MW
Industrial	1,891	2,739
Commercial/Institutional	7,483	2,371
Total	9,374	5,110

Georgia Technical Potential (MW) for Industrial CHP Applications



Application	50-500 kW		0.5 - 1 MW		1 - 5 MW		5 - 20 MW		>20 MW		Total	
	Sites	MW	Sites	MW	Sites	MW	Sites	MW	Sites	MW	Total Sites	Total MW
Chemicals	202	35	59	44	89	188	33	290	8	294	391	851
Textiles	175	37	38	28	89	198	46	358	2	69	350	690
Paper	78	19	8	5	20	39	10	89	10	417	126	569
Food Processing	166	32	22	16	43	72	9	75	1	22	241	218
Lumber and Wood	237	42	28	20	40	81	3	17	0	0	308	161
Other Industrial	353	57	60	44	60	129	2	19	0	0	475	249
Total	1,211	224	215	157	341	707	103	849	21	802	1,891	2,739

Georgia Technical Potential (MW) for Commercial/Institutional CHP Applications



Application	50-500 kW		0.5 - 1 MW		1 - 5 MW		5 - 20 MW		>20 MW		Total	
	Sites	MW	Sites	MW	Sites	MW	Sites	MW	Sites	MW	Total Sites	Total MW
Commercial Buildings	1,833	92	733	293	183	110	0	0	0	0	2,749	495
College/Univ.	70	14	13	8	58	128	13	123	5	155	159	429
Schools	696	222	167	114	26	31	0	0	0	0	889	367
Hospitals	70	18	39	27	74	156	1	7	0	0	184	207
Military	11	1	2	1	3	8	8	87	1	34	25	131
Other Comm./Inst.	3,200	401	173	99	102	172	1	17	1	53	3,477	742
Total	5,880	748	1,127	542	446	605	23	233	7	243	7,483	2,371

Department of Energy CHP Accelerators

Packaged CHP Accelerator

Standardized packaged CHP systems can reduce risk for both CHP users and suppliers by reducing design errors, limiting uncertainty about performance, shortening project development time, and reducing overall costs. Accelerator partners will validate the installation, performance, and economic and resiliency benefits of packaged CHP systems, evaluate the integration of new technologies and packaged CHP, and identify R&D challenges. For more information, visit <https://betterbuildingsinitiative.energy.gov/accelerators/packaged-chp>

CHP for Resiliency Accelerator

The U.S. DOE collaborated with cities, states, utilities, and other stakeholders who are actively pursuing CHP as a consideration in resiliency planning for critical infrastructure in their jurisdictions. This included defining resiliency, identifying critical infrastructure, and assessing CHP opportunities. This process was documented in the DG for Resilience Planning Guide and the CHP for Resilience Screening Tool. For more information, visit <https://betterbuildingsinitiative.energy.gov/accelerators/combined-heat-and-power-resiliency>

Georgia: CHP Economics

The most important indicators for CHP economics are electricity and gas prices. For most potential CHP installations, natural gas and electricity rates for host facilities will fall within the range of average commercial and industrial prices. Lower energy prices may be possible for large CHP applications.

Georgia Natural Gas Prices

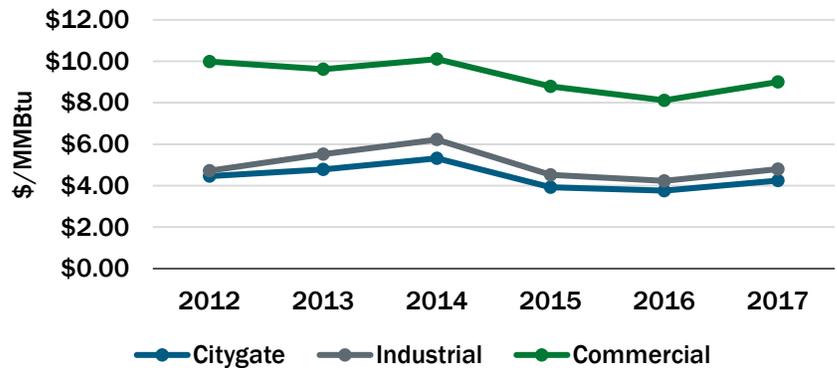
The EIA industrial natural gas price is a full tariff rate, and most large consumers are purchasing gas commodities from marketers at a lower rate.

Georgia Average Gas Prices (\$/MMBtu) - 2017

Sector	GA Price	U.S. Price
Citygate*	4.25	4.26
Industrial	4.80	4.20
Commercial	9.00	8.08

*Citygate is a point or measuring station at which a distributing gas utility receives gas from a NG pipeline company or transmission system.

Georgia Average Natural Gas Prices



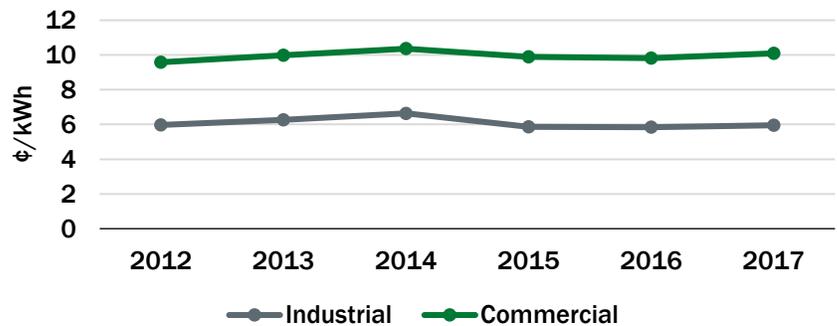
Georgia Electricity Prices

Electricity rates can vary greatly by utility and facility size range. The rates below from EIA represent general averages; individual facility rates may vary.

Georgia Average Electricity Prices (¢/kWh) - 2017

Sector	GA Price	U.S. Price
Industrial	5.96	6.88
Commercial	10.09	10.66

Georgia Average Electricity Prices



Georgia Average Delivered Electricity Prices by Utility

Utility	Industrial Price (¢/kWh)	Commercial Price (¢/kWh)	Average Price (¢/kWh)
Blue Ridge Mountain MEC	-	13.48	13.48
Tri-State EMC	-	12.73	12.73
Georgia Power	5.62	9.74	7.68



Georgia Power Co

Blue Ridge Mountain EMC / Tri-State EMC