

The State of CHP: Georgia



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. For help with questions about specific CHP opportunities in Georgia, please consult with the [Southeast CHP Technical Assistance Partnership](#).

Installed CHP

CHP Technical Potential

CHP Economics

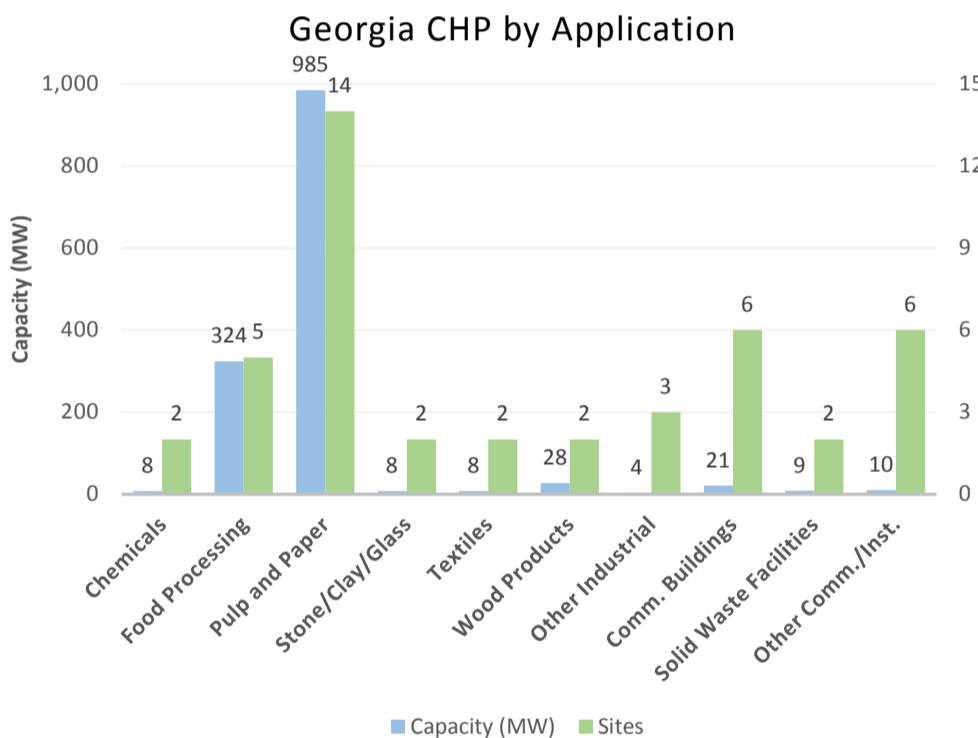
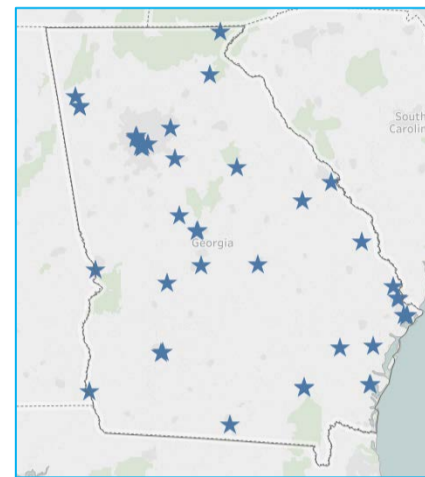
CHP Partners

Georgia Installed Base of CHP

[U.S. DOE Combined Heat and Power Installation Database](#)

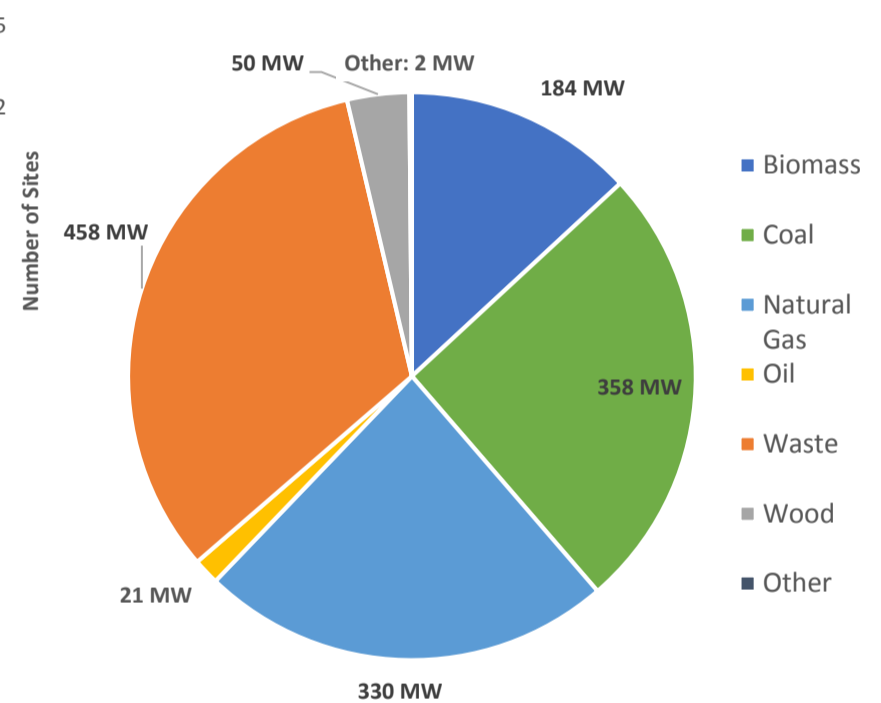
Sector	Installations	Capacity (MW)
Industrial	28	1,361
Commercial/Institutional	14	40
Other	2	2
Total	44	1,403

The Southeast CHP Technical Assistance Partnership 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](#).



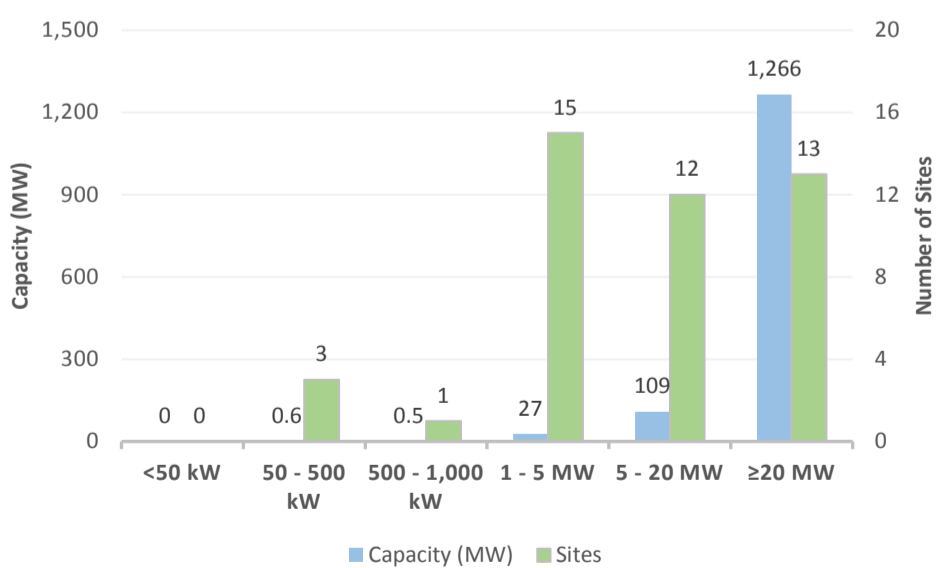
Source: DOE CHP Installation Database (U.S. installations as of Dec. 31, 2016)

Georgia CHP Capacity (MW) by Fuel Type



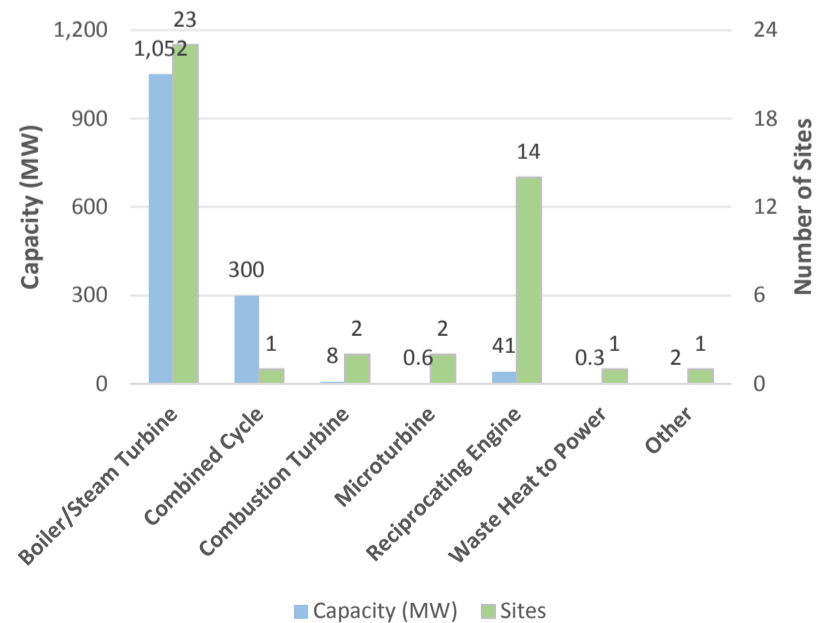
Source: DOE CHP Installation Database (U.S. installations as of Dec. 31, 2016)

Georgia CHP by Size Range



Source: DOE CHP Installation Database (U.S. installations as of Dec. 31, 2016)

Georgia CHP by Technology



Source: DOE CHP Installation Database (U.S. installations as of Dec. 31, 2016)

Combined Heat and Power (CHP) – sometimes 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.



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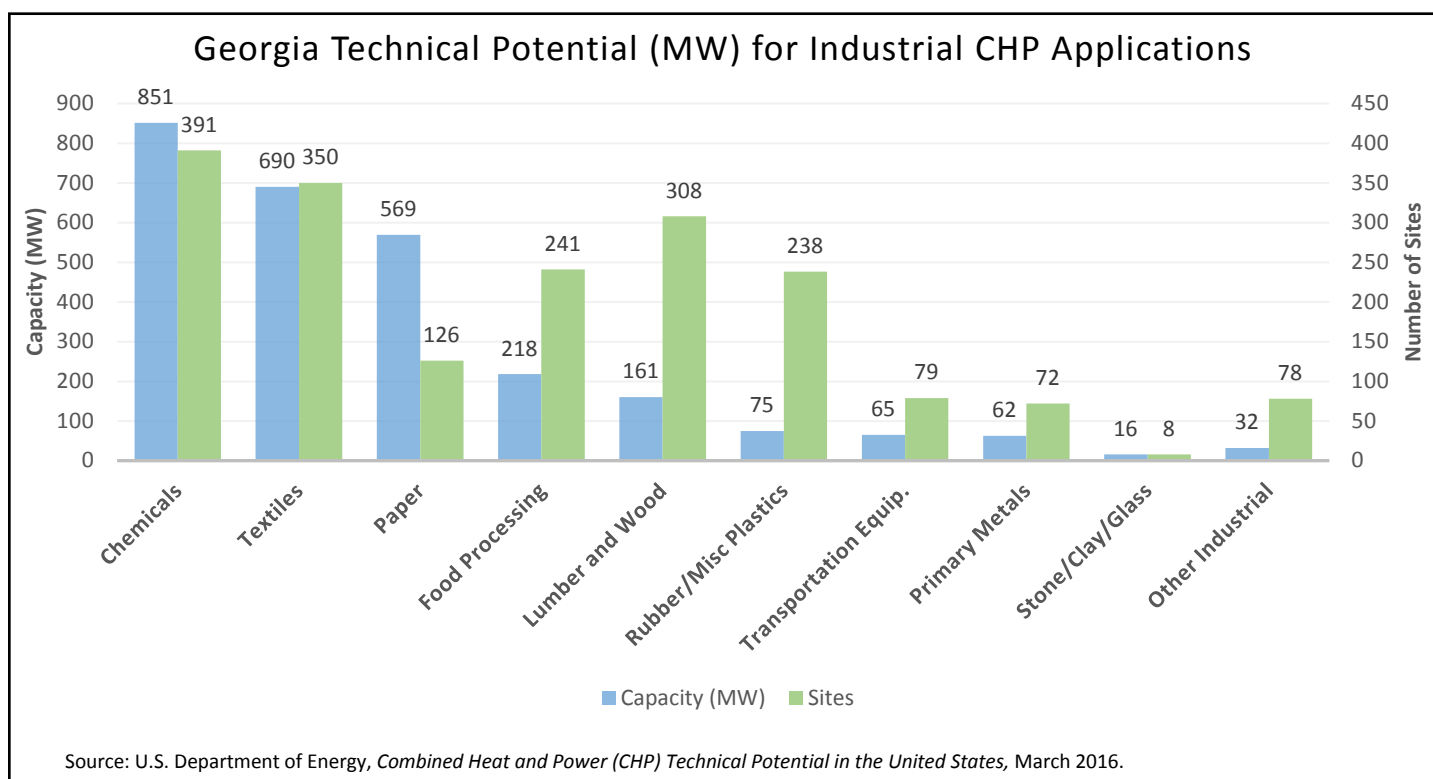
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Georgia Technical Potential for New CHP Installations

[U.S. DOE Analysis: Combined Heat and Power \(CHP\) Technical Potential in the United States](#)

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

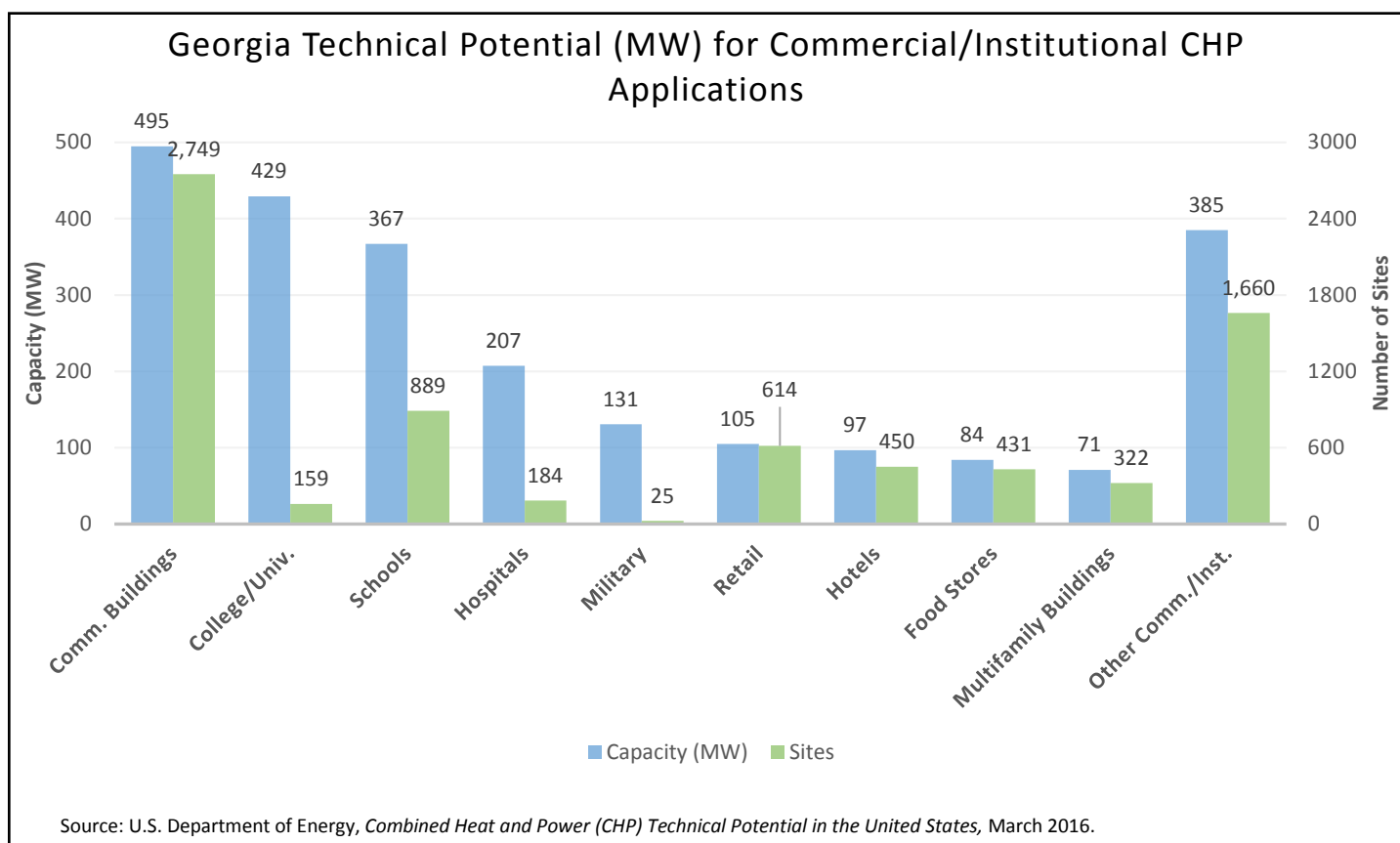


Source: U.S. Department of Energy, *Combined Heat and Power (CHP) Technical Potential in the United States*, March 2016.

Technical Potential by CHP Size Range for Top Five Industrial Sectors

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

Source: U.S. Department of Energy, *Combined Heat and Power (CHP) Technical Potential in the United States*, March 2016.



Source: U.S. Department of Energy, *Combined Heat and Power (CHP) Technical Potential in the United States*, March 2016.

Technical Potential by CHP Size Range for Top Five Commercial/Institutional Sectors

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

Source: U.S. Department of Energy, *Combined Heat and Power (CHP) Technical Potential in the United States*, March 2016.

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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.

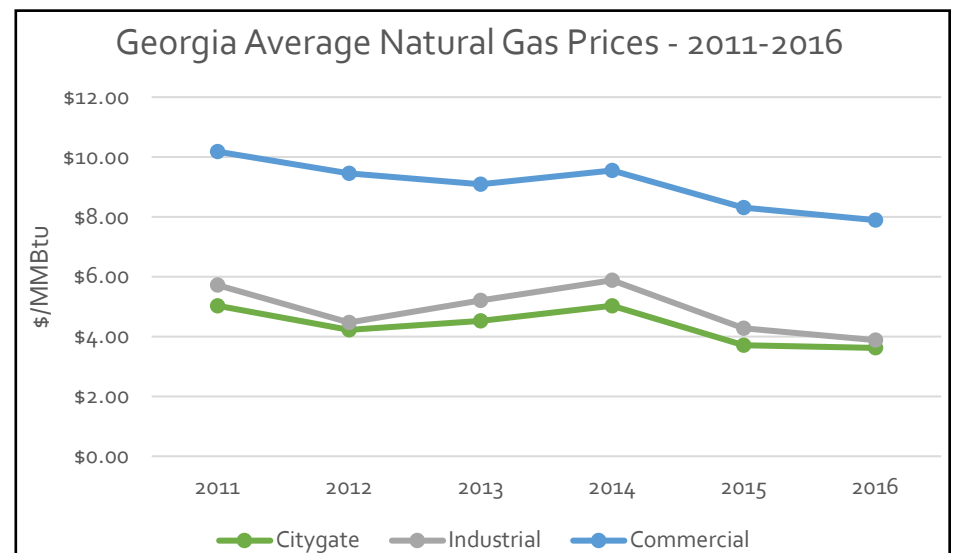
Georgia Natural Gas Prices

Georgia Average Gas Prices - 2016

Sector	GA Price (\$/MMBtu)	U.S. Price (\$/MMBtu)
Citygate*	3.62	3.75
Industrial	3.88	3.39
Commercial	7.89	7.22

Source: U.S. Energy Information Administration, "Natural Gas Prices", https://www.eia.gov/dnav/ng/ng_pri_sum_dcu_SGA_a.htm

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.



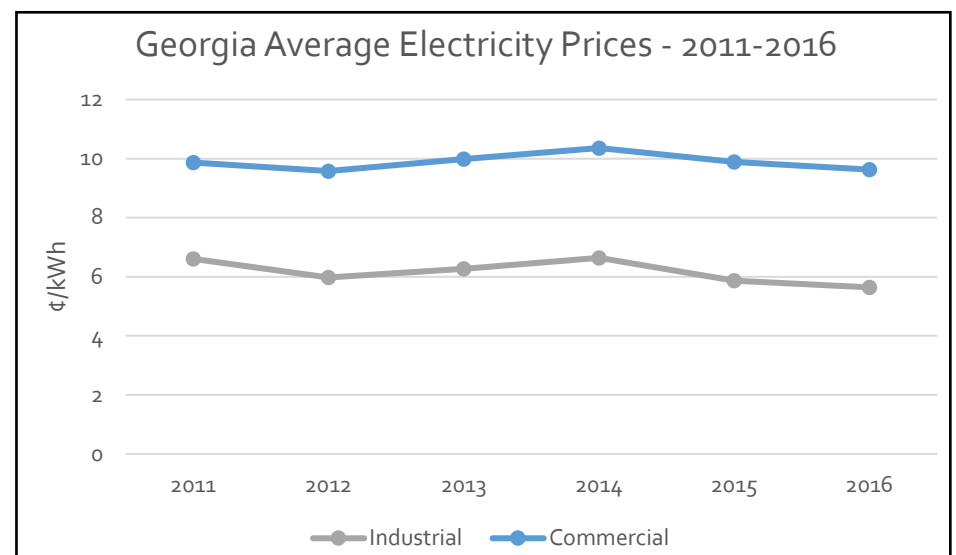
Georgia Electricity Prices

Georgia Average Electricity Prices - 2016

Sector	GA Price (¢/kWh)	U.S. Price (¢/kWh)
Industrial	5.64	6.75
Commercial	9.63	10.37

Source: U.S. Energy Information Administration, "Electricity Data Browser", <https://www.eia.gov/electricity/data.cfm>

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 Delivered Electricity Prices by Utility

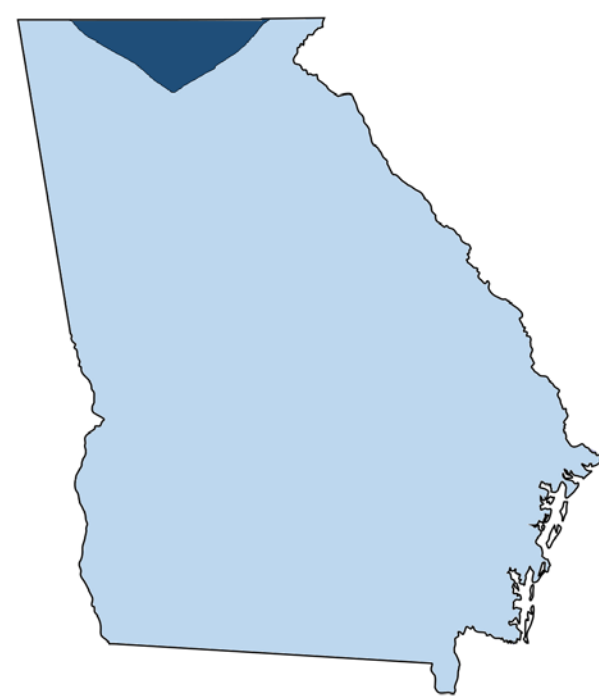
Utility	Industrial Price (¢/kWh)	Commercial Price (¢/kWh)	Average Price* (¢/kWh)
Blue Ridge Mountain EMC	-	13.22	13.22
Tri-State EMC	-	12.36	12.36
Georgia Power Co	5.48	9.56	7.52

Source: U.S. Energy Information Administration, "Annual retail price of electricity by utility", <https://www.eia.gov/electricity/data.cfm>

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

**Average of commercial and industrial electricity prices as reported by EIA.

Georgia Electricity Prices – Heat Map



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CHP Technical
Potential

CHP Economics

CHP Partners

Department of Energy CHP Partnerships

Southeast CHP Technical Assistance Partnership



U.S. DEPARTMENT OF ENERGY

CHP Technical Assistance Partnerships

SOUTHEAST

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CHP for Resiliency Accelerator

The U.S. DOE is collaborating with a group of cities, states, and utilities who are actively pursuing CHP as a consideration in resiliency planning for critical infrastructure in their jurisdictions. This has included defining resiliency, identifying critical infrastructure, and assessing CHP opportunities. This process is being documented in a Resiliency Planning Tool. For more information: [CHP for Resiliency Accelerator Website](#).

- Currently, there are no CHP for Resiliency Accelerator partners in Georgia.

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