

The State of CHP: Louisiana



The information in this document provides a general overview of the state of CHP in Louisiana, with data on current installations, technical potential, and economics for CHP. For help with questions about specific CHP opportunities in Louisiana, please consult with the [Southeast CHP Technical Assistance Partnership](#).

Installed CHP

CHP Technical Potential

CHP Economics

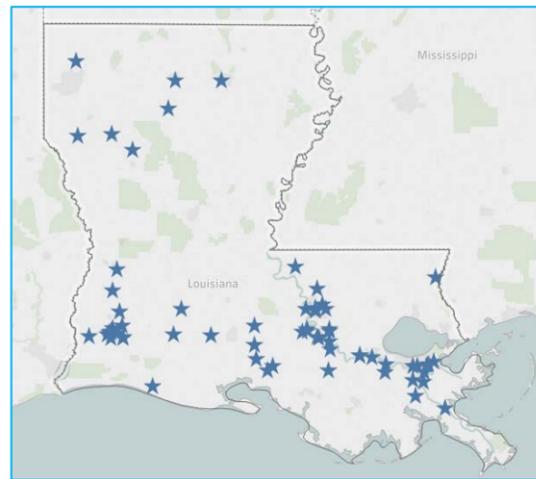
CHP Partners

Louisiana Installed Base of CHP

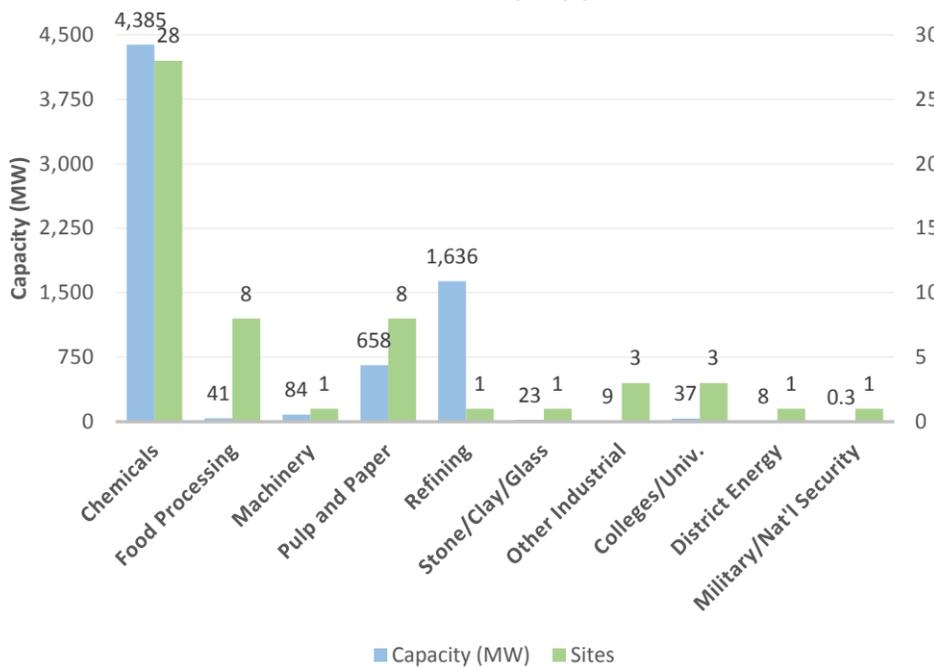
[U.S. DOE Combined Heat and Power Installation Database](#)

Sector	Installations	Capacity (MW)
Industrial	59	6,834
Commercial/Institutional	5	45
Other	1	2
Total	65	6,881

The Southeast CHP Technical Assistance Partnership has compiled information on certain illustrative CHP projects in Louisiana. You can access these by visiting the Department of Energy's [CHP Project Profiles Database](#).

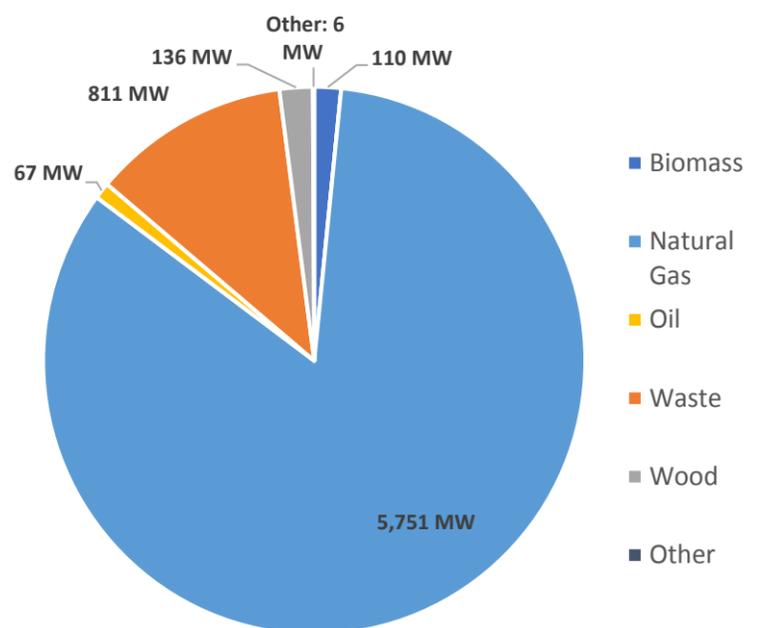


Louisiana CHP by Application



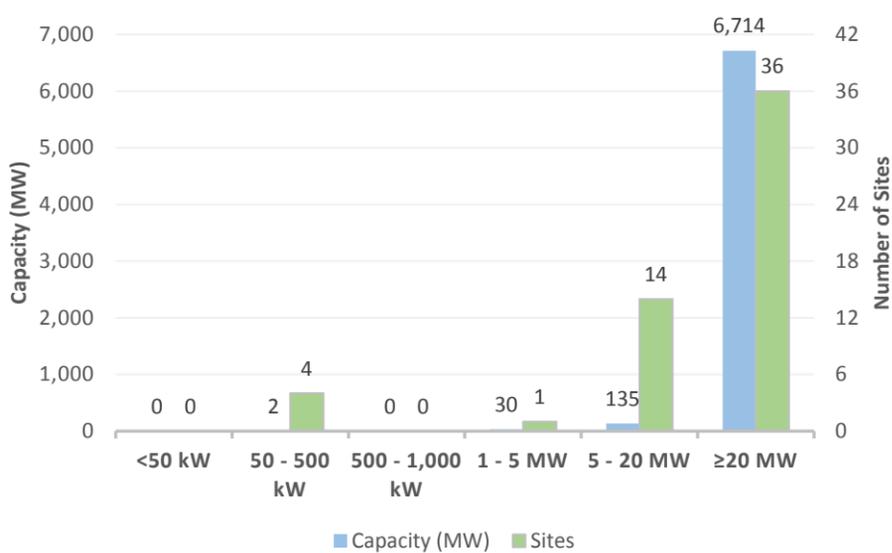
Source: DOE CHP Installation Database (U.S. installations as of Dec. 31, 2016)

Louisiana CHP Capacity (MW) by Fuel Type



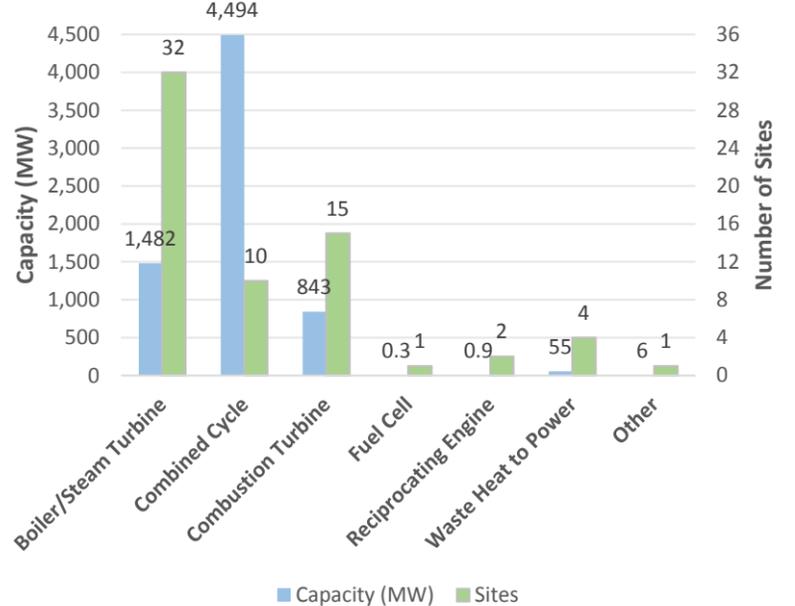
Source: DOE CHP Installation Database (U.S. installations as of Dec. 31, 2016)

Louisiana CHP by Size Range



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

Louisiana 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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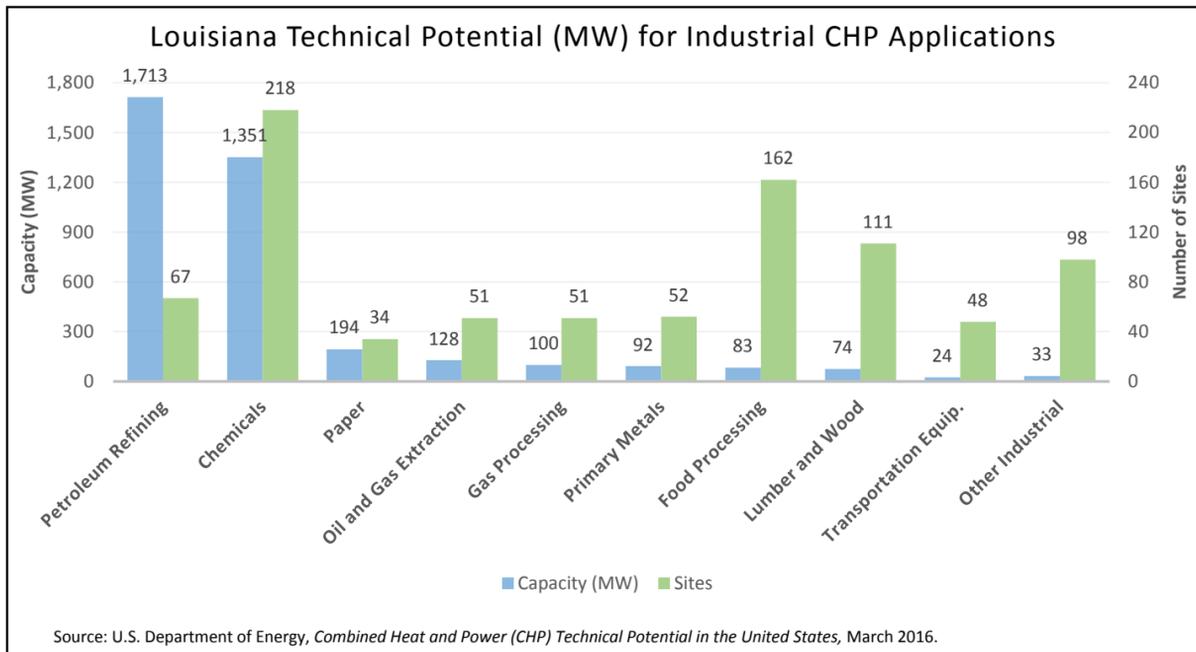
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Louisiana Technical Potential for New CHP Installations

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

Sector	Potential Sites	Potential Capacity (MW)
Industrial	892	3,793
Commercial/Institutional	3,545	1,152
Total	4,437	4,946

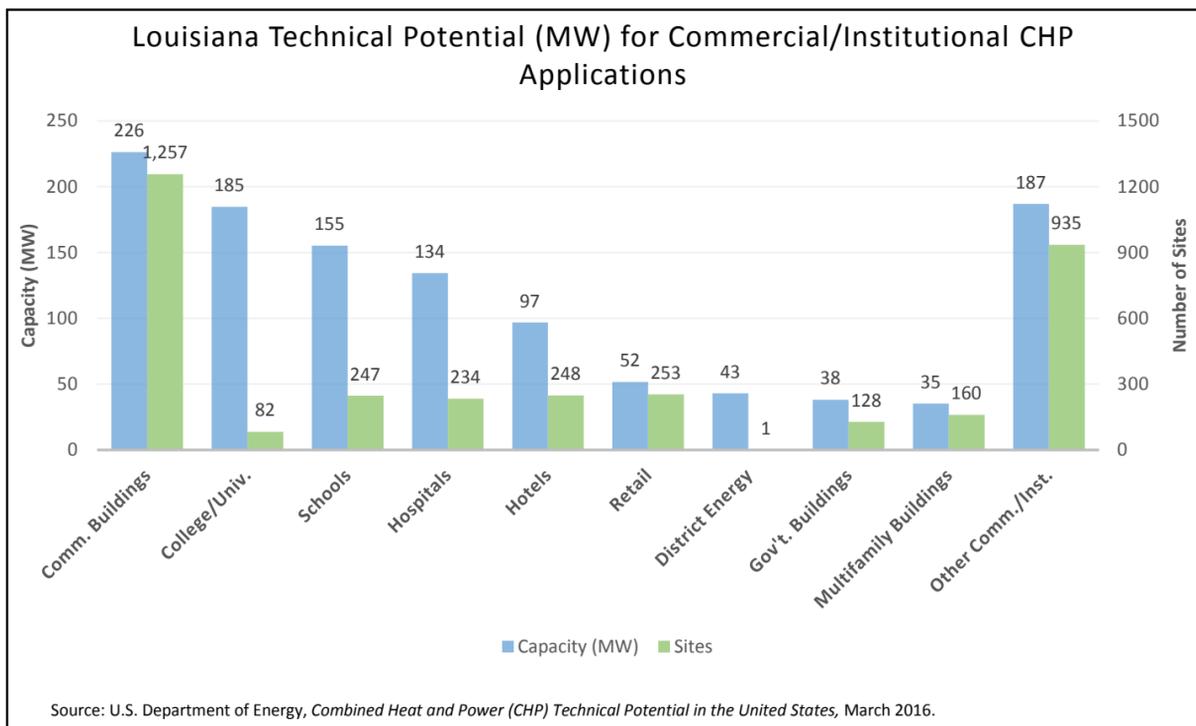


Source: U.S. Department of Energy, Combined Heat and Power (CHP) Technical Potential in the United States, March 2016.

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
Petroleum Refining	1	0	11	8	25	78	10	90	20	1,538	67	1,713
Chemicals	84	17	25	17	60	142	33	351	16	824	218	1,351
Paper	18	5	5	3	8	21	1	19	2	147	34	194
Oil and Gas Extraction	15	4	9	6	21	63	6	55	0	0	51	128
Gas Processing	20	5	5	3	21	52	5	39	0	0	51	100
Other Industrial	359	63	33	23	70	131	9	90	0	0	471	307
Total	497	94	88	61	205	486	64	644	38	2,509	892	3,793

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	838	42	335	134	84	50	0	0	0	0	1,257	226
College/Univ.	43	7	6	5	20	48	13	125	0	0	82	185
Schools	102	47	120	79	25	29	0	0	0	0	247	155
Hospitals	171	33	24	17	36	66	3	19	0	0	234	134
Hotels	224	28	10	6	7	11	7	52	0	0	248	97
Other Comm./Inst.	1,353	166	81	47	38	59	3	19	2	64	1,477	355
Total	2,731	323	576	288	210	263	26	215	2	64	3,545	1,152

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

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Louisiana 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.

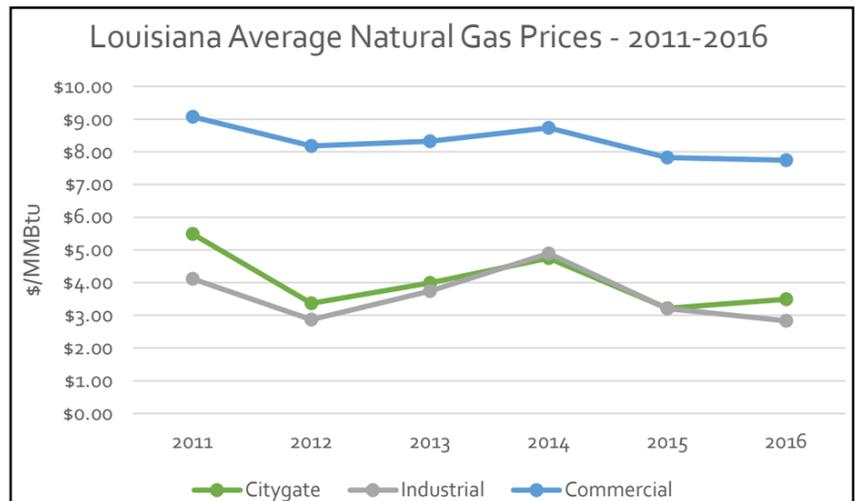
Louisiana Natural Gas Prices

Louisiana Average Gas Prices - 2016

Sector	LA Price (\$/MMBtu)	U.S. Price (\$/MMBtu)
Citygate*	3.49	3.75
Industrial	2.83	3.39
Commercial	7.74	7.22

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



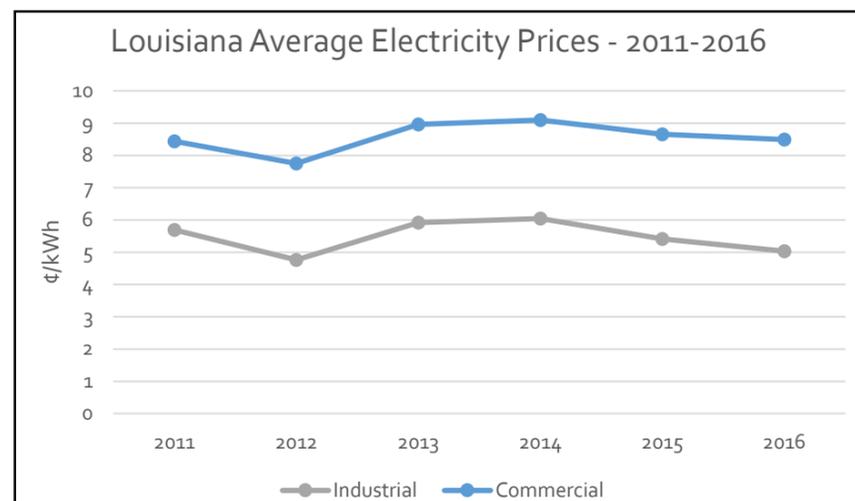
Louisiana Electricity Prices

Louisiana Average Electricity Prices - 2016

Sector	LA Price (¢/kWh)	U.S. Price (¢/kWh)
Industrial	5.03	6.75
Commercial	8.49	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.



Louisiana Average Delivered Electricity Prices by Utility

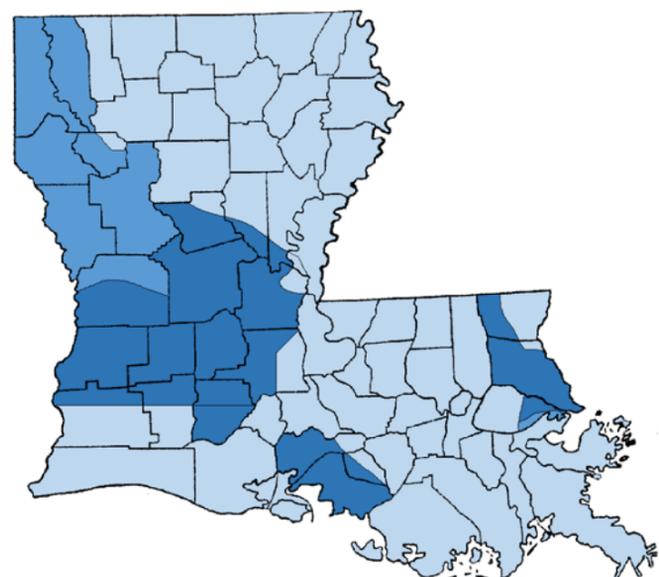
Utility	Industrial Price (¢/kWh)	Commercial Price (¢/kWh)	Average Price** (¢/kWh)
Cleco Power	7.70	10.43	9.06
Entergy New Orleans	6.52	8.05	7.28
Southwestern Elec Power	5.52	8.57	7.05
Entergy Louisiana	5.03	8.69	6.86
Entergy Gulf States	5.26	7.88	6.57

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.

Louisiana Electricity Prices – Heat Map



- Entergy Louisiana / Entergy Gulf States
- Entergy New Orleans / Southwestern Electric Power (SWEPCO)
- Cleco Power

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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 Louisiana.

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U.S. DEPARTMENT OF ENERGY
CHP Technical Assistance Partnerships