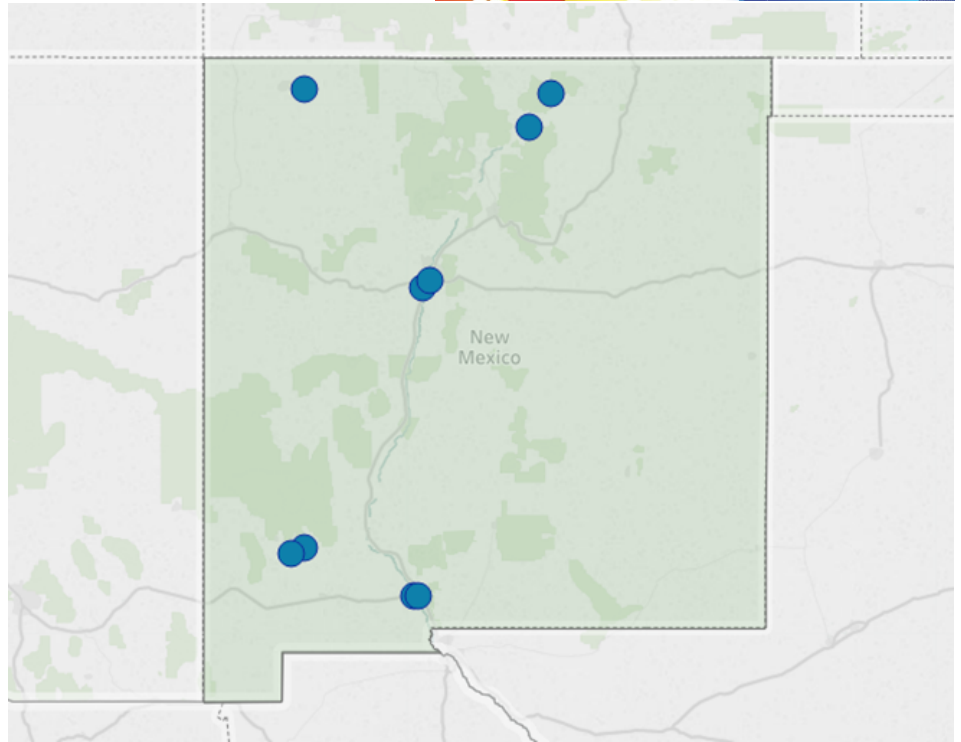


The State of CHP: New Mexico



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 New Mexico, with data on current installations, technical potential, and economics for CHP.



Map of current CHP installations in New Mexico. Illustration from ICF.

New Mexico: 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 New Mexico, and can be accessed by visiting <https://doe.icfwebservices.com/chp>.

CHP Project Profiles

The Southcentral CHP TAP has compiled information on certain illustrative CHP projects in New Mexico. You can access these by visiting the Department of Energy’s CHP Project Profiles Database at <https://betterbuildingsolutioncenter.energy.gov/chp/chp-project-profiles-database>.

Southcentral CHP Technical Assistance Partnership

For assistance with questions about specific CHP opportunities in New Mexico, please consult with the Southcentral CHP TAP by visiting scchptap.org or contacting the CHP TAP director.

New Mexico Existing CHP

Sector	Sites	Capacity (MW)
Industrial	0	0
Commercial/Institutional	5	27
Other	4	61
Total	9	87

Southcentral CHP TAP Director

Gavin Dillingham, Ph.D.

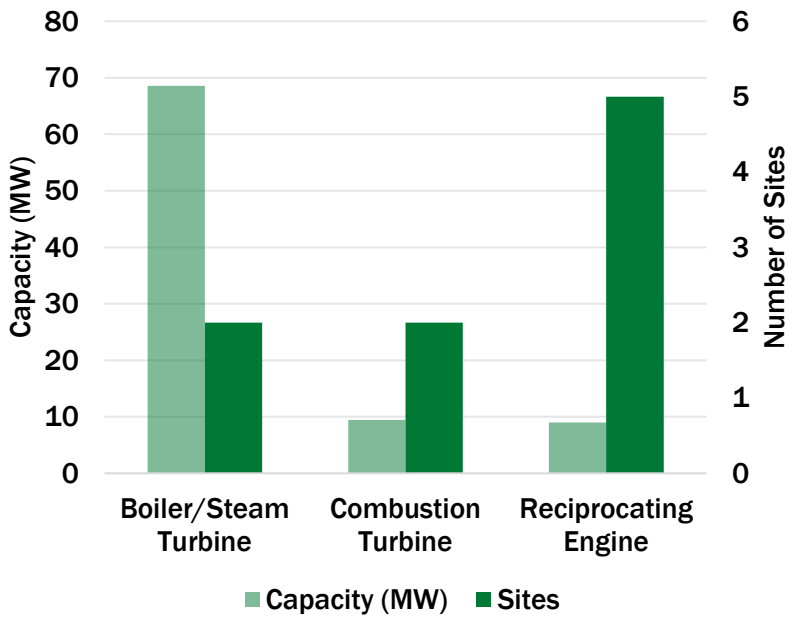
- HARC
- gdillingham@harcresearch.org
- 281-216-7147

SOUTHCENTRAL

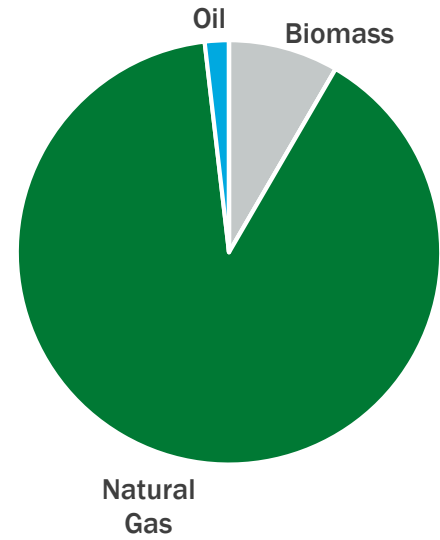


CHP
TECHNICAL ASSISTANCE
PARTNERSHIPS

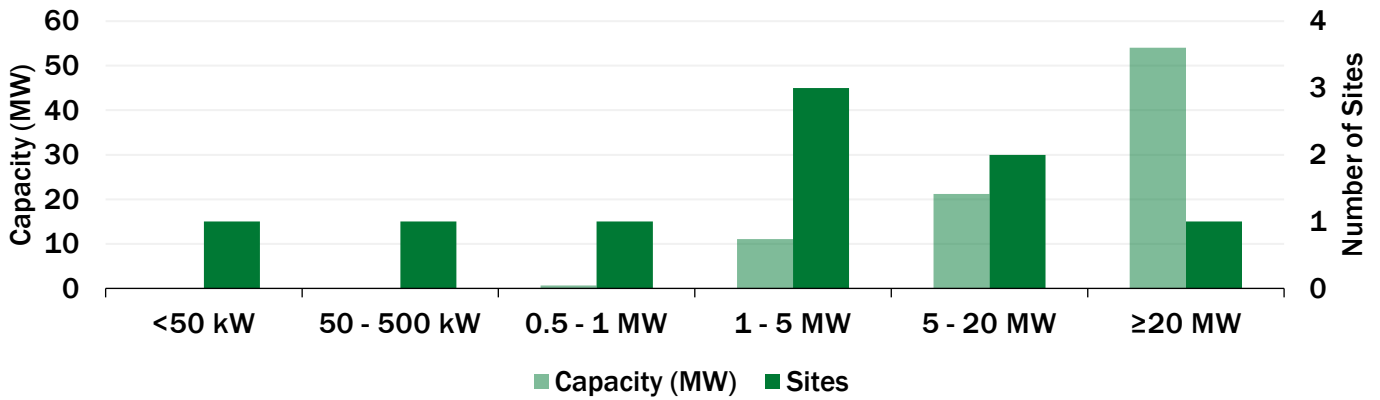
New Mexico CHP by Technology



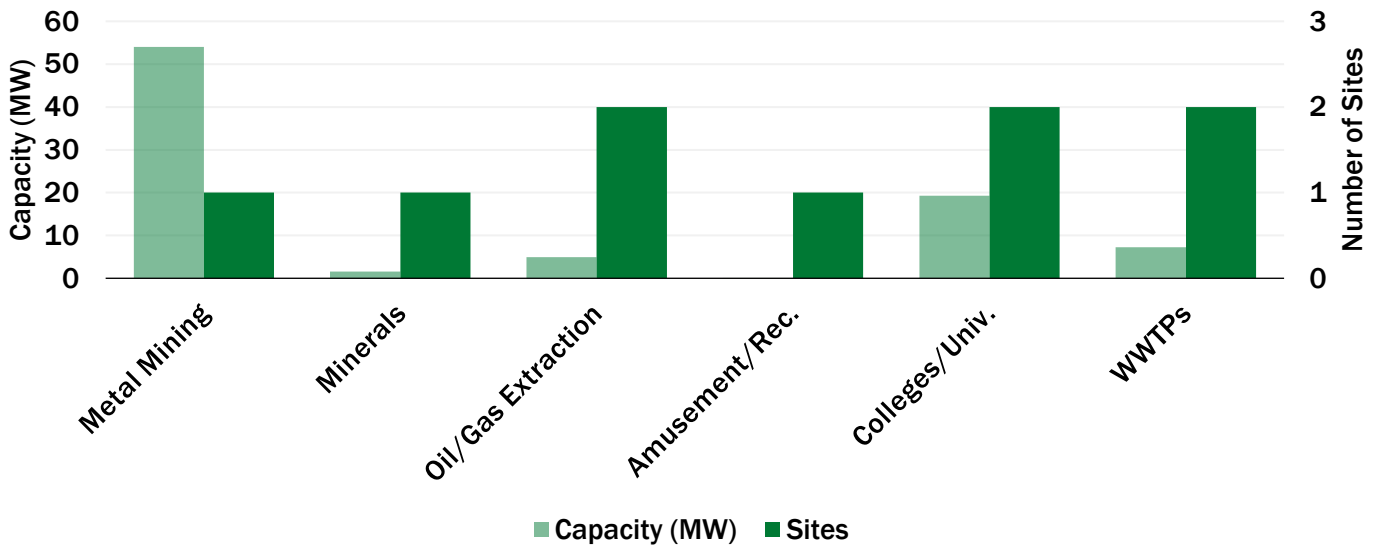
New Mexico CHP Capacity (MW) by Fuel



New Mexico CHP by Size Range



New Mexico CHP by Application



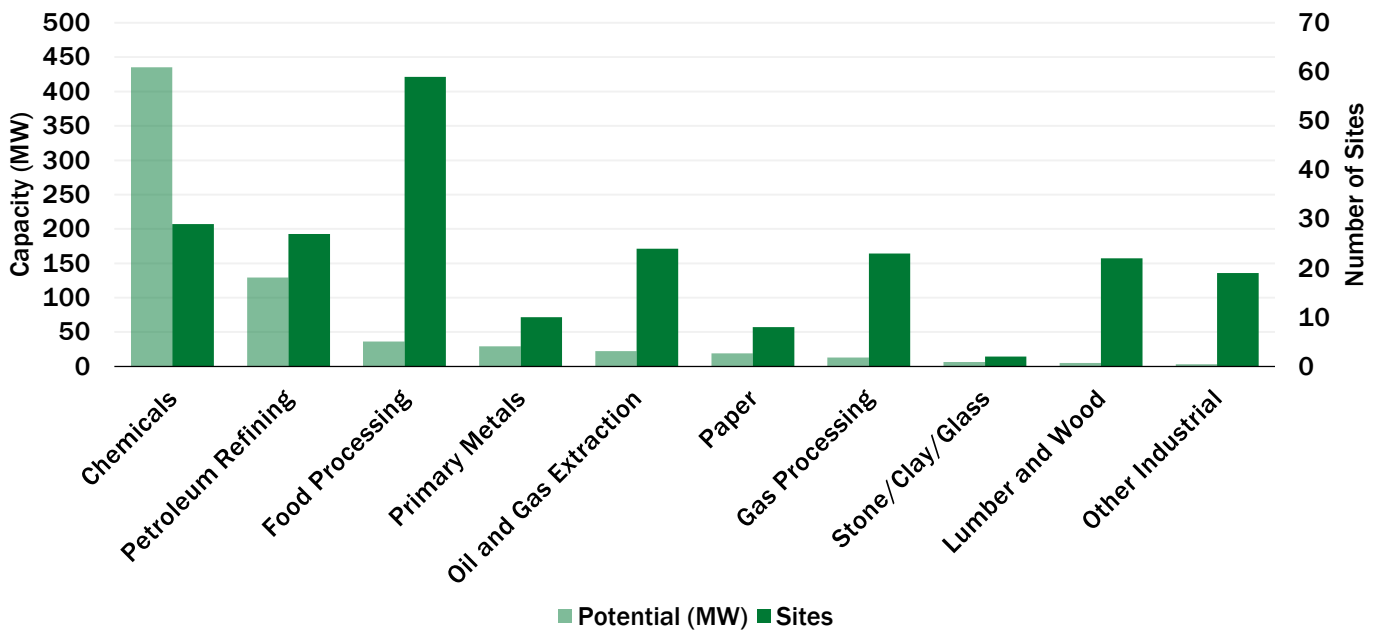
New Mexico: Technical Potential for New CHP Installations

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. Read the report [here](#).

New Mexico CHP Technical Potential

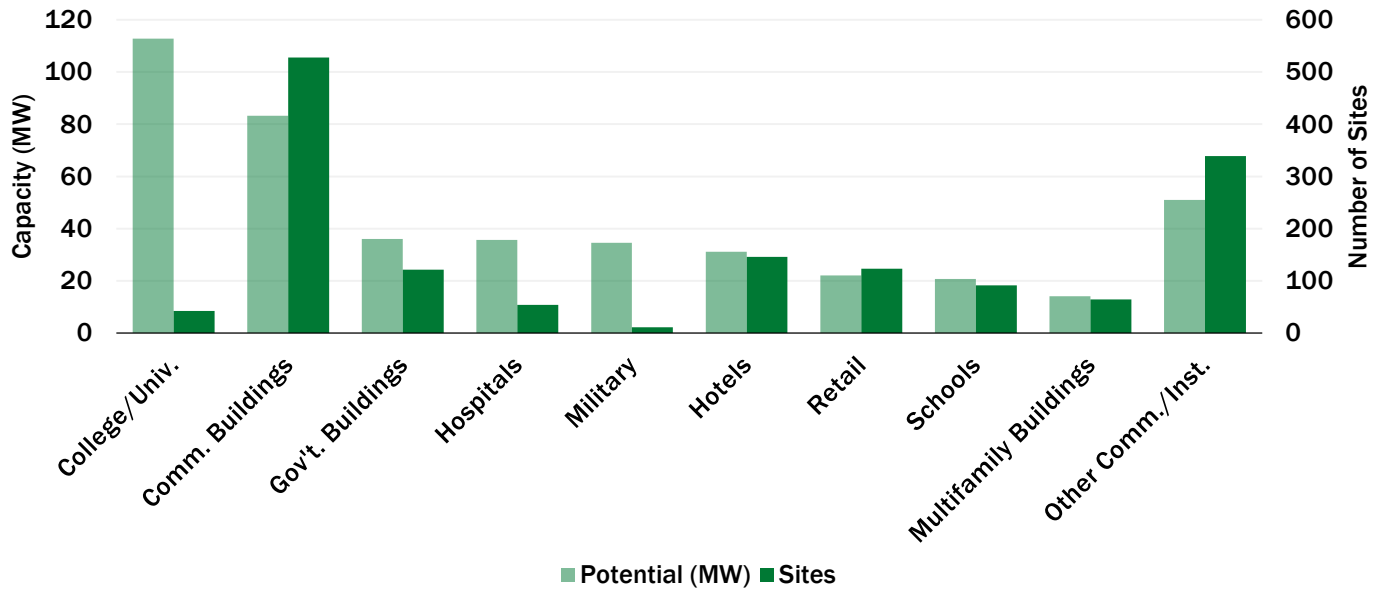
Sector	Potential Sites	Potential MW
Industrial	223	699
Commercial/Institutional	1,519	441
Total	1,742	1,140

New Mexico 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	14	2	6	5	5	10	1	5	3	413	29	435
Petroleum Refining	0	0	4	3	19	50	3	35	1	42	27	129
Food Processing	46	8	5	3	7	17	1	8	0	0	59	36
Primary Metals	7	2	2	1	0	0	0	0	1	26	10	29
Oil/Gas Extraction	14	4	5	3	4	9	1	6	0	0	24	22
Other Industrial	58	11	7	5	8	20	1	11	0	0	74	47
Total	139	27	29	21	43	106	7	65	5	481	223	699

New Mexico 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
College/Univ.	18	4	3	2	14	40	6	43	1	24	42	113
Commercial Buildings	382	19	117	47	29	17	0	0	0	0	528	83
Government Buildings	105	14	10	7	5	8	1	7	0	0	121	36
Hospitals	30	7	14	9	10	20	0	0	0	0	54	36
Military	4	1	1	1	3	8	3	25	0	0	11	35
Other Comm./Inst.	701	90	49	29	13	20	0	0	0	0	763	139
Total	1,240	135	194	95	74	112	10	75	1	24	1,519	441

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://betterbuildingssolutioncenter.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://betterbuildingssolutioncenter.energy.gov/accelerators/combined-heat-and-power-resiliency>

New Mexico: 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.

New Mexico Natural Gas Prices

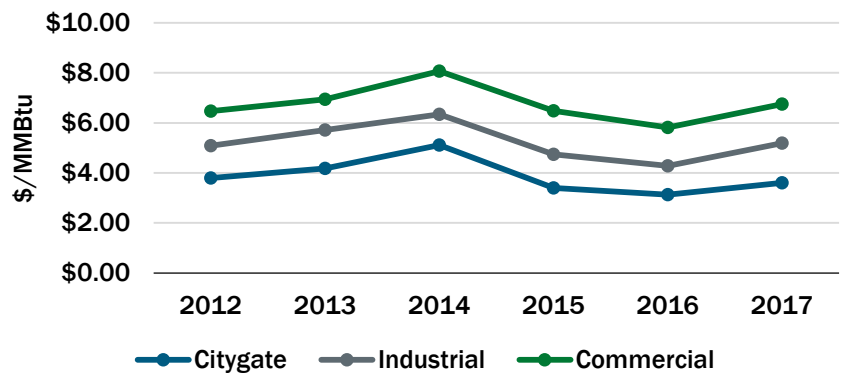
The EIA industrial natural gas price is a full tariff rate, and most large consumers are purchasing gas commodities from marketers at a lower rate.

New Mexico Average Gas Prices (\$/MMBtu) - 2017

Sector	NM Price	U.S. Price
Citygate*	3.60	4.26
Industrial	5.19	4.20
Commercial	6.75	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.

New Mexico Average Natural Gas Prices



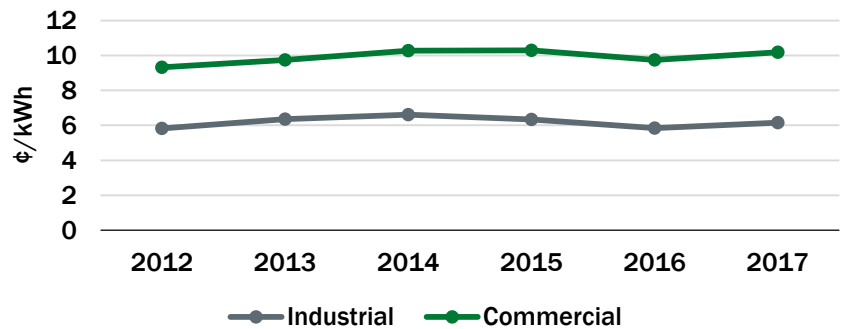
New Mexico Electricity Prices

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

New Mexico Average Electricity Prices (¢/kWh) - 2017

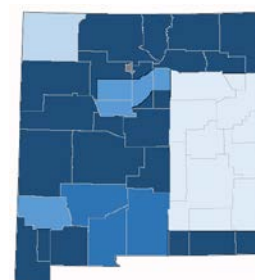
Sector	NM Price	U.S. Price
Industrial	6.15	6.88
Commercial	10.19	10.66

New Mexico Average Electricity Prices



New Mexico Average Delivered Electricity Prices by Utility

Utility	Industrial Price (¢/kWh)	Commercial Price (¢/kWh)	Average Price (¢/kWh)
State cooperatives – average	10.07	13.47	11.77
El Paso Electric	8.57	10.61	9.59
Xcel Energy	5.69	10.73	8.21
City of Farmington	6.19	9.50	7.85
SWEPCO	4.93	8.22	6.58



- SWEPCO
- City of Farmington
- Xcel Energy
- El Paso Electric
- State cooperatives