

# The State of CHP: DC



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

Installed CHP

CHP Technical Potential

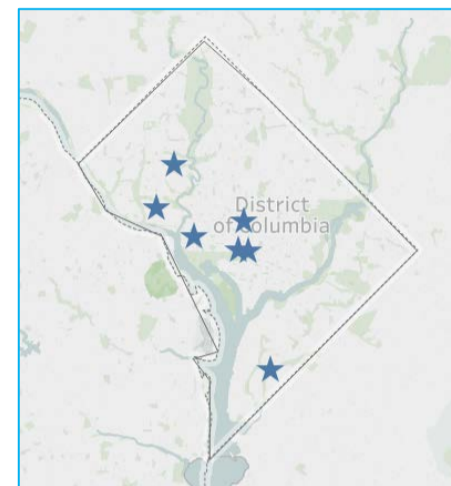
CHP Economics

CHP Partners

## DC Installed Base of CHP

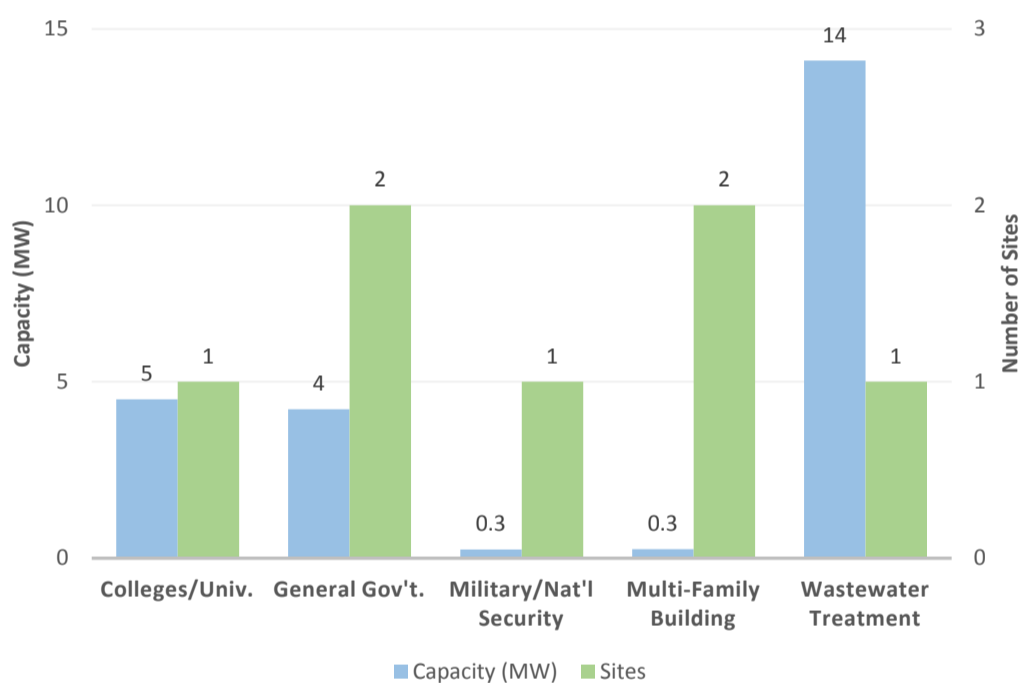
[U.S. DOE Combined Heat and Power Installation Database](#)

Sector	Installations	Capacity (MW)
Industrial	0	0
Commercial/Institutional	7	23
Other	0	0
<b>Total</b>	<b>7</b>	<b>23</b>



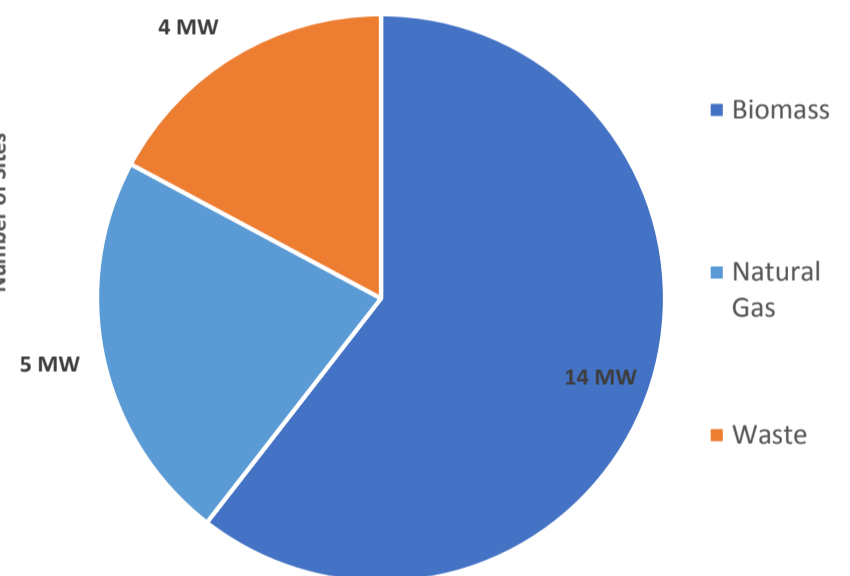
The Mid-Atlantic CHP Technical Assistance Partnership has compiled information on certain illustrative CHP projects in the District of Columbia. You can access these by visiting the Department of Energy's [CHP Project Profiles Database](#).

District of Columbia CHP by Application



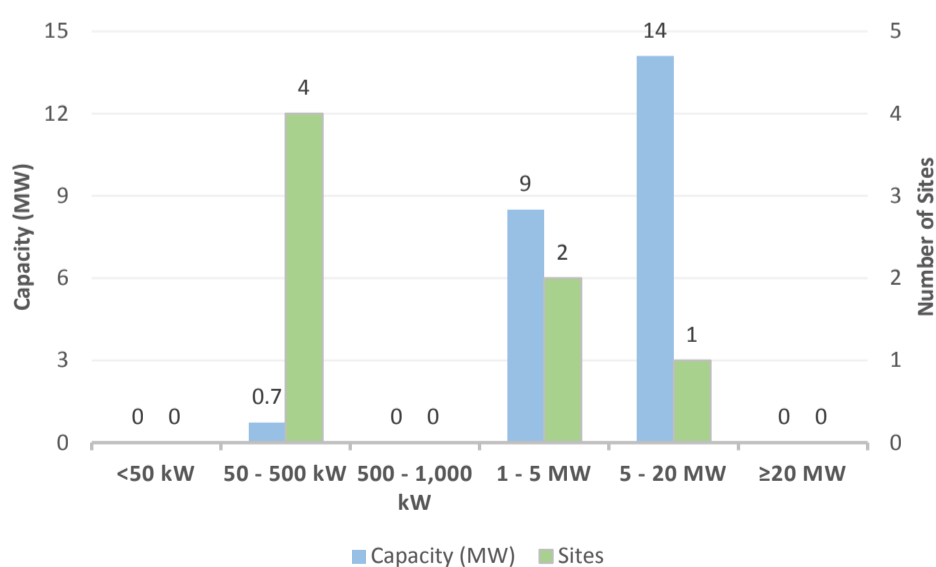
Source: DOE CHP Installation Database (U.S. installations as of Dec. 31, 2016)

D.C. CHP Capacity (MW) by Fuel Type



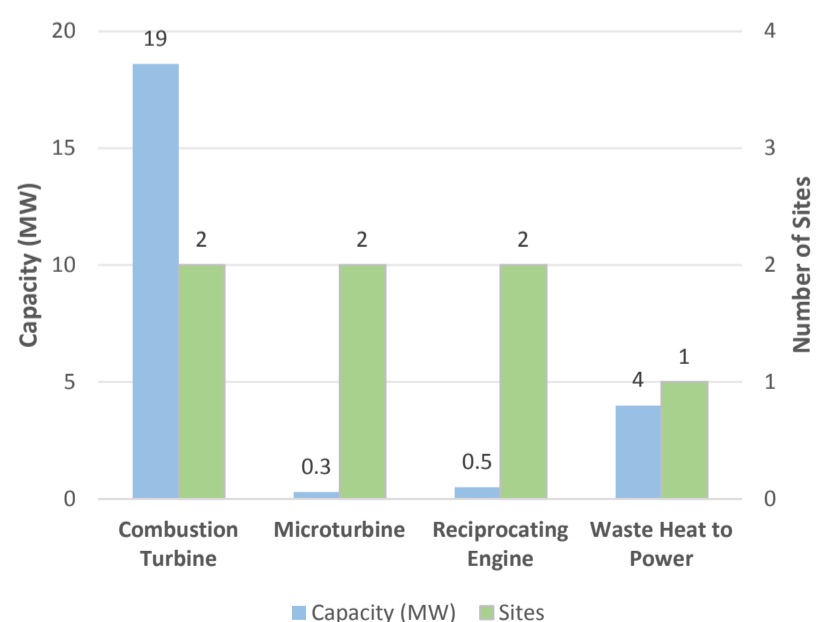
Source: DOE CHP Installation Database (U.S. installations as of Dec. 31, 2016)

District of Columbia CHP by Size Range



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

District of Columbia 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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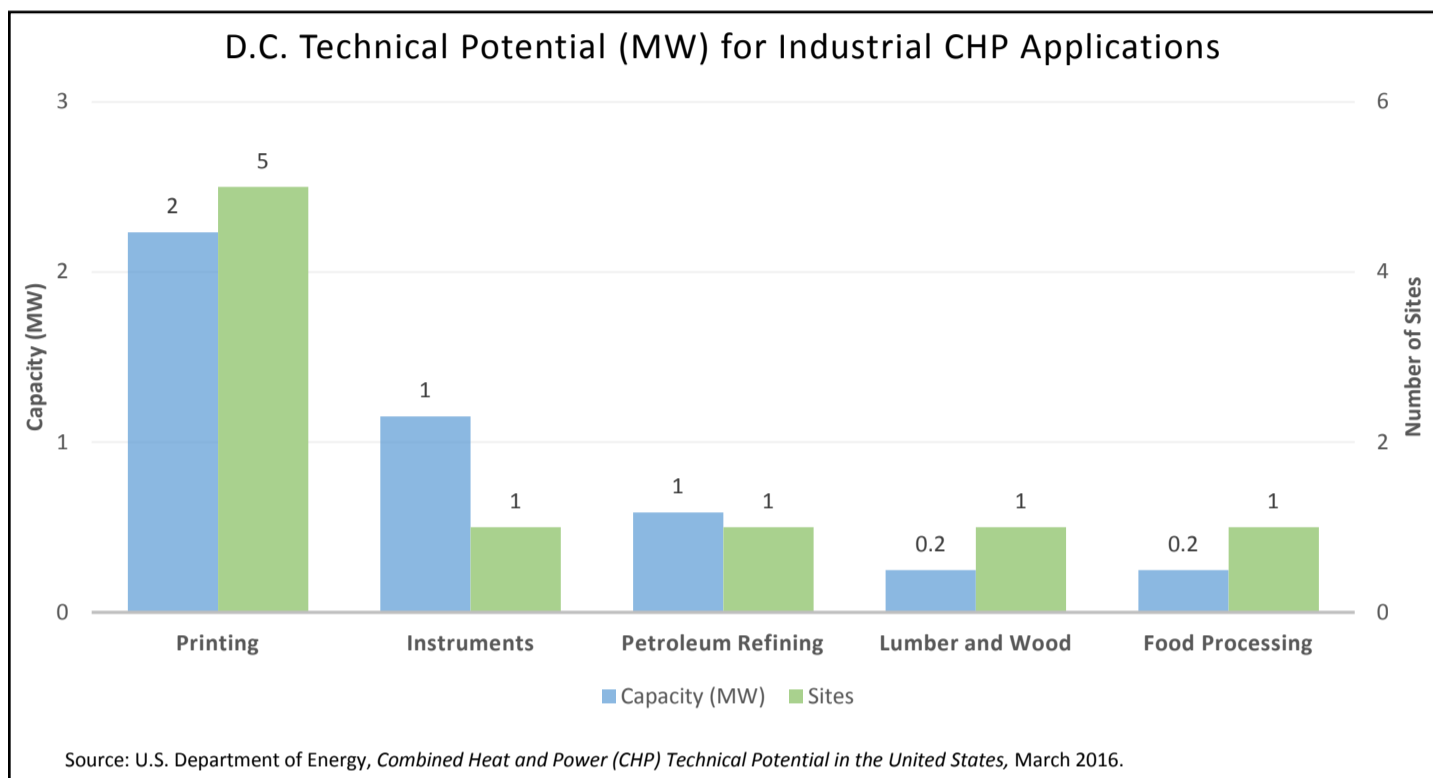
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## DC Technical Potential for New CHP Installations

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

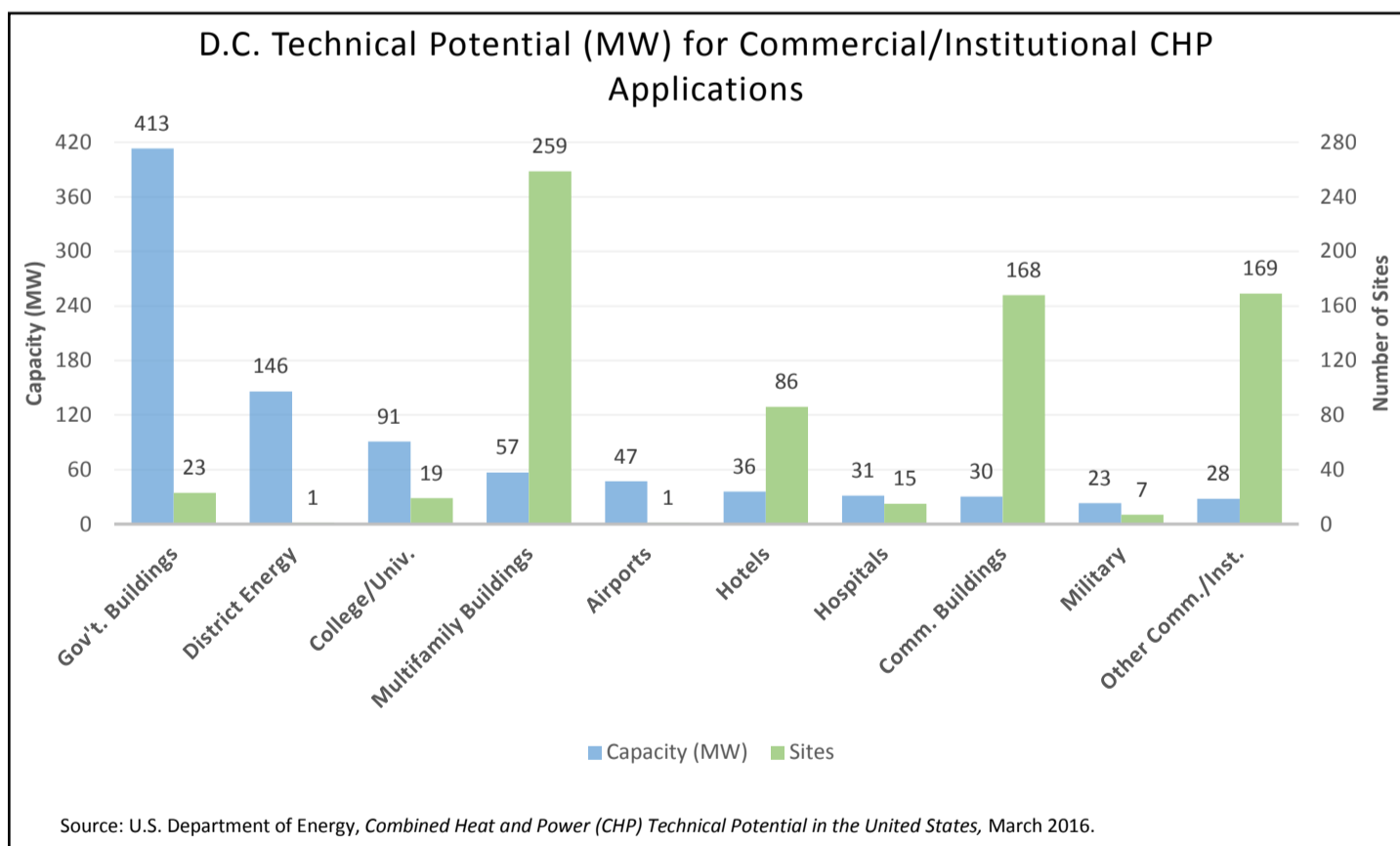
Sector	Potential Sites	Potential Capacity (MW)
Industrial	9	4
Commercial/Institutional	748	903
<b>Total</b>	<b>757</b>	<b>907</b>



### 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
Printing	4	0.4	0	0	1	2	0	0	0	0	5	2
Petroleum Refining	0	0	1	1	0	0	0	0	0	0	1	1
Instruments	0	0	0	0	1	1	0	0	0	0	1	1
Food Processing	1	0.2	0	0	0	0	0	0	0	0	1	0.2
Lumber and Wood	1	0.2	0	0	0	0	0	0	0	0	1	0.2
Other Industrial	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>4</b>

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
Government Buildings	15	2	1	1	3	6	3	20	1	385	23	413
College/Univ.	8	1	1	1	4	9	5	49	1	31	19	91
Multifamily Buildings	182	14	66	33	10	10	0	0	0	0	259	57
Airports	0	0	0	0	0	0	0	0	1	47	1	47
Hotels	58	9	14	9	14	18	0	0	0	0	86	36
Other Comm./Inst.	334	33	67	32	41	65	3	18	0	0	445	149
<b>Total</b>	<b>539</b>	<b>50</b>	<b>135</b>	<b>66</b>	<b>58</b>	<b>91</b>	<b>11</b>	<b>87</b>	<b>4</b>	<b>609</b>	<b>748</b>	<b>903</b>

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

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## DC 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.

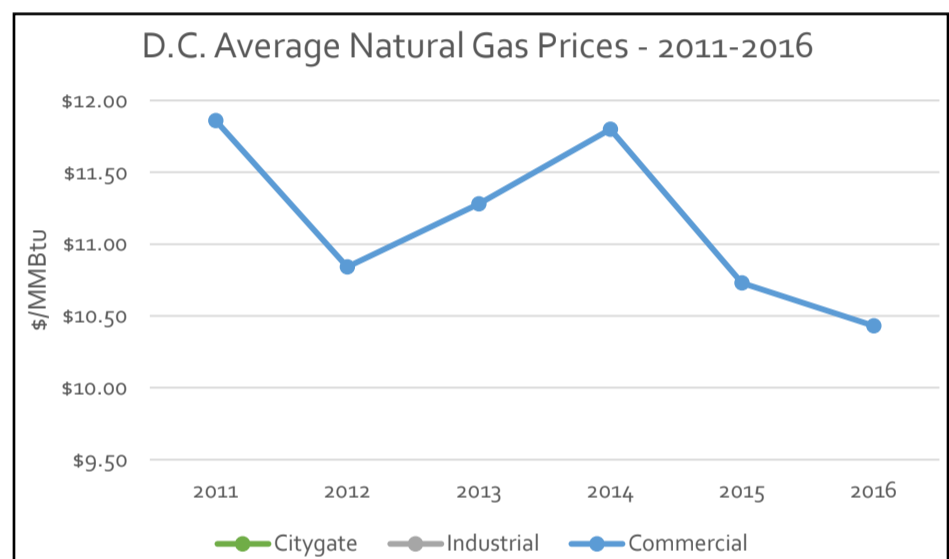
### D.C. Natural Gas Prices

#### D.C. Average Gas Prices - 2016

Sector	DC Price (\$/MMBtu)	U.S. Price (\$/MMBtu)
Citygate*	-	3.75
Industrial	-	3.39
Commercial	10.43	7.22

Source: U.S. Energy Information Administration, "Natural Gas Prices", [https://www.eia.gov/dnav/ng/ng\\_pri\\_sum\\_dcu\\_SDC\\_a.htm](https://www.eia.gov/dnav/ng/ng_pri_sum_dcu_SDC_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.



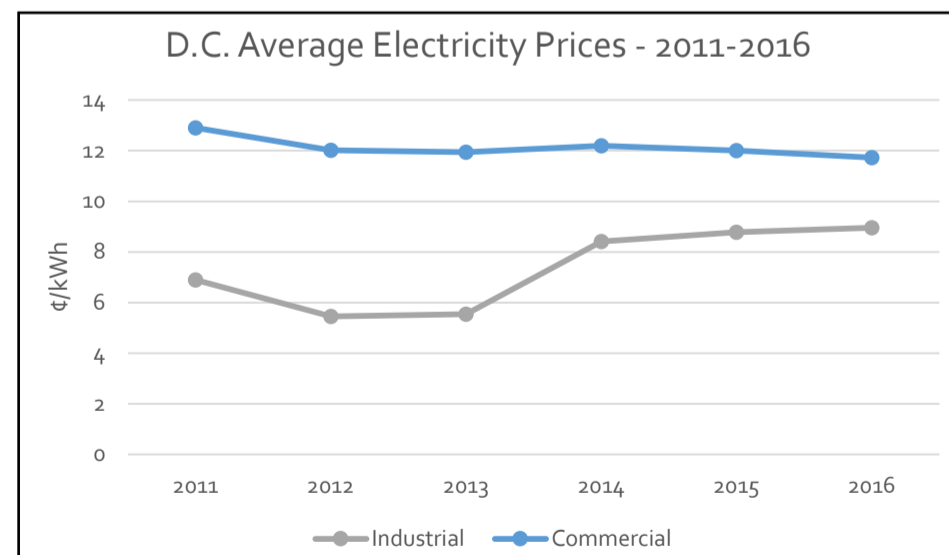
### D.C. Electricity Prices

#### D.C. Average Electricity Prices - 2016

Sector	DC Price (¢/kWh)	U.S. Price (¢/kWh)
Industrial	8.96	6.75
Commercial	11.73	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.



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

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Installed CHP

CHP Technical  
Potential

CHP Economics

CHP Partners

## Department of Energy CHP Partnerships

### Mid-Atlantic CHP Technical Assistance Partnership



U.S. DEPARTMENT OF ENERGY  
**CHP Technical Assistance Partnerships**  

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**MID-ATLANTIC**

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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](#).

- Edison Electric Institute

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U.S. DEPARTMENT OF ENERGY  
**CHP Technical Assistance Partnerships**