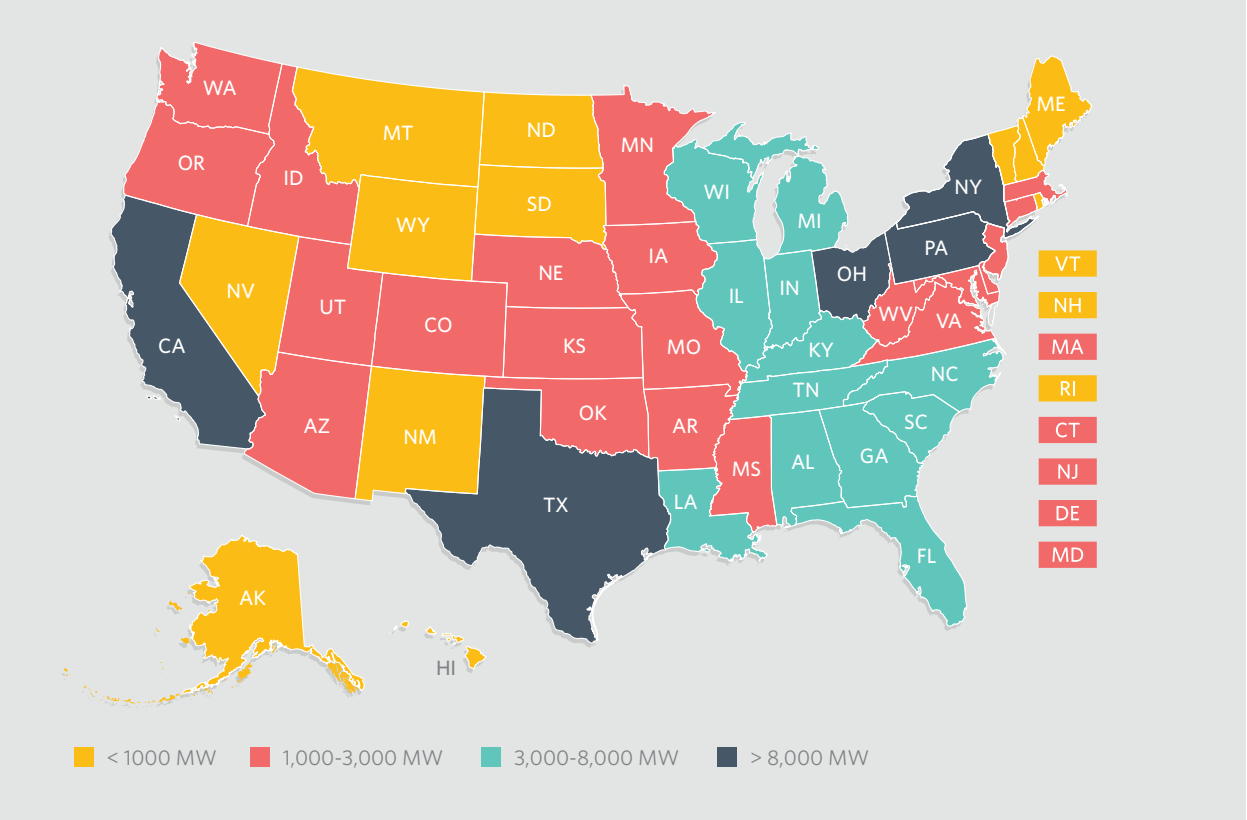
Industrial Energy Efficiency in **Florida**

Overview

Combined heat and power, or CHP, technologies provide reliable electricity, mechanical power, or thermal energy by capturing heat that is wasted during electricity generation. District energy takes heat from a CHP system to heat or cool entire complexes such as a university campus, office park, or downtown area. More recently, a process called waste heat to power, or WHP, has been used to capture heat released during industrial processes that convert raw materials into products. These on-site technologies allow businesses to achieve energy efficiencies of up to 80 percent. Technologies such as CHP and WHP represent tremendous potential to reduce energy consumption in Florida's industrial sector, saving manufacturers money and creating energy businesses and jobs.

CHP Technical Potential



Source: U.S. Department of Energy

State and regional statistics

Manufactured goods account for 92 percent of Florida's exports. The manufacturing sector employs 4.2 percent of the nonfarm workforce.

Source: National Association of Manufacturers

Florida's overall energy consumption ranks third nationwide, and the state's industrial energy use ranks 20th. Industrial energy use is responsible for 11.7 percent of Florida's total energy consumption.

Sources: U.S. Energy Information Administration State Energy Data System Rankings and U.S. Energy Information Administration Florida Profile

Florida can do more to take full advantage of its potential. From 2005 to 2010, Florida added only three CHP sites totaling 14.6 megawatts in capacity, ranking it 26th in additions of CHP sites and 12th in total capacity of these new installations.

Source: American Council for an Energy-Efficient Economy

Florida has 61 CHP sites with a total generating capacity of 3,326 MW.

Source: U.S. Department of Energy

Of all regions in the United States, manufacturers in the South generate the highest percentage of their total electricity demand from on-site CHP (20 percent).

Source: U.S. Energy Information Administration, Manufacturing Energy Consumption Survey, 2010

Cumulative Electricity Savings of State Energy Efficiency Resource Standard Policies

State	Cumulative 2020 target	State	Cumulative 2020 target
Vermont*	27.00%	**Wisconsin***	13.50%
Maryland*	26.70%	**Maine***	13.40%
New York*	26.50%	**Connecticut***	13.14%
Massachusetts	26.10%	**California***	12.94%
Rhode Island*	25.26%	**Ohio**	12.13%
Arizona	22.00%	**Michigan**	10.55%
Illinois	18.00%	**Oregon***	10.40%
Hawaii*	18.00%	**Pennsylvania***	9.98%
Washington	17.24%	**New Mexico**	8.06%
Minnesota	16.50%	**Arkansas***	6.75%
Iowa*	16.10%	**Texas**	4.60%
Delaware	15.00%	**Florida**	4.06%
Colorado	14.93%	**Nevada**	3.76%
Indiana	13.81%	**North Carolina**	2.92%

*Savings beginning in 2009 extrapolated out to 2020 based on final year of annual savings required.

Source: American Council for an Energy-Efficient Economy

State policies support industrial energy efficiency

Although Florida has established energy efficiency targets, it lacks the funding to implement them. As a result, the state is missing out on the benefits and opportunities of energy efficiency. The Florida Energy Efficiency and Conservation Act established the Florida Public Service Commission as the authority on targets for energy and peak demand savings. In 2010, the commission set annual savings targets of 572 GW-hours in 2010, 843 GWh in 2015, and back down to 661 GWh in 2019. This is equivalent to 7,425 GWh over the 10 years.

Source: American Council for an Energy-Efficient Economy

Florida's Energy Efficiency Resource Standard is one of the weakest in the nation. Increasing goals and incentives for industrial energy efficiency could help businesses invest in these money-saving technologies and generate industries and jobs in Florida.

Source: American Council for an Energy-Efficient Economy

CHP improves energy security

Reducing strain on the electrical grid with energy-efficient technologies increases power reliability during electrical outages due to extreme weather and other causes.

Florida had 73 blackouts in 2014, ranking seventh in the nation. The outages lasted nearly 26 hours and affected 194,698 residents.

Source: Blackout Tracker

Examples of CHP Facilities in Florida

City	Facility	Application	Year operational	Capacity (kW)	Fuel type
Vero Beach	Ineos New Planet Bioenergy	Chemicals	2012	6,000	Biomass
Orlando	University of Central Florida	Colleges/universities	2012	5,500	Natural gas
Punta Gorda	Landfill gas plant, Zemel Road Landfill, Charlotte County	Solid-waste facilities	2011	2,800	Biomass
Ocala	Ocala landfill	Solid-waste facilities	2010	125	Biomass

Source: U.S. Department of Energy

For further information, please visit:

pewtrusts.org/industrialefficiency

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