DOE Hydrogen Program Record

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Title: Electrolyzer Capacity Installations in the United States

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Item

Proton exchange membrane (PEM) electrolyzer installations in the United States (including firm announcements and those under construction) totaled approximately 172 MW as of June 2021. This capacity is only for those units of 120 kW or greater per site and do not include smaller units such as those used for laboratory research.

Table 1 lists locations and capacities of current and planned PEM electrolyzer installations in the United States. This information is based on input from electrolyzer manufacturers and publicly available information but listed without attribution to any individual electrolyzer company or to specific end users. While several additional plans may have been announced, this Record focuses on plans that have been funded (e.g., DOE projects or other financing already in place).

Current installed capacity is approximately 13.4 MW while planned, firm capacity (with construction under way) is approximately 159 MW. Capacity for electrolyzers installed ranges from 120 kW to 2 MW, while capacity for planned installations ranges from 120 kW to 120 MW. As installations and announcements are continuously being updated, this Record only documents public information available at the time of this posting (June 2021).

Table 1. Current or Planned Installations of PEM Electrolyzers in the U.S. as of June 2021

Location	Power (kW)	Status
Alabama, NY	120,000	Planned/Under Construction
Arvada, CO	1,250	Installed
Austin, TX	180	Installed
Austin, TX	180	Installed
Bay Area, CA	1,250	Installed
Braintree, MA	120	Installed
Boston, MA	120	Installed
CA	120	Installed
CA	180	Planned/Under Construction

Canandaigua, NY	120	Installed
Champaign, Urbana, IL	1,000	Installed
Columbus, OH	180	Installed
Columbus, IN	180	Installed
Costa Mesa, CA	180	Installed
Emeryville, CA	180	Installed
Hertford City, NC	120	Installed
HI	180	Installed
HI	180	Installed
HI	180	Installed
Holtwood, PA	30,000	Planned/Under Construction
Leesport, PA	180	Installed
Lexington, MA	180	Installed
Lincoln, RI	120	Installed
MA	120	Installed
Mahwah, NJ	180	Installed
NJ	180	Installed
NY	120	Planned/Under Construction
NY	120	Planned/Under Construction
Oakland, CA	180	Installed
ОН	120	Installed
Oak Harbor, OH	2,000	Planned/Under Construction
Orlando, FL	500	Planned/Under Construction
Oswego, NY	1,250	Installed
PA	120	Installed
Palm Springs, CA	2,000	Installed
Prairie Island, MN	500	Planned/Under Construction
San Carlos, CA	120	Installed
San Carlos, CA	120	Installed
San Jose, CA	180	Installed
San Jose, CA	180	Installed
Santa Clara, CA	180	Installed
Sonoma, CA	500	Installed
Southwest WA	1,500	Installed
Sugar Land, TX	120	Installed
Tempe, AZ	180	Installed
Douglas County, WA	5,000	Planned/Under Construction
Total	172,390 (Rounded to 172 MW)	

^{*} Nuclear to hydrogen demonstrations co-funded by the U.S. Dept. of Energy's Nuclear Energy and Hydrogen and Fuel Cell Technologies Offices.

* Potential up to 3MW

^{**} Potential up to 1MW

Figure 1. Map of Current or Planned Installations of PEM Electrolyzers in the U.S. as of June 2021

