
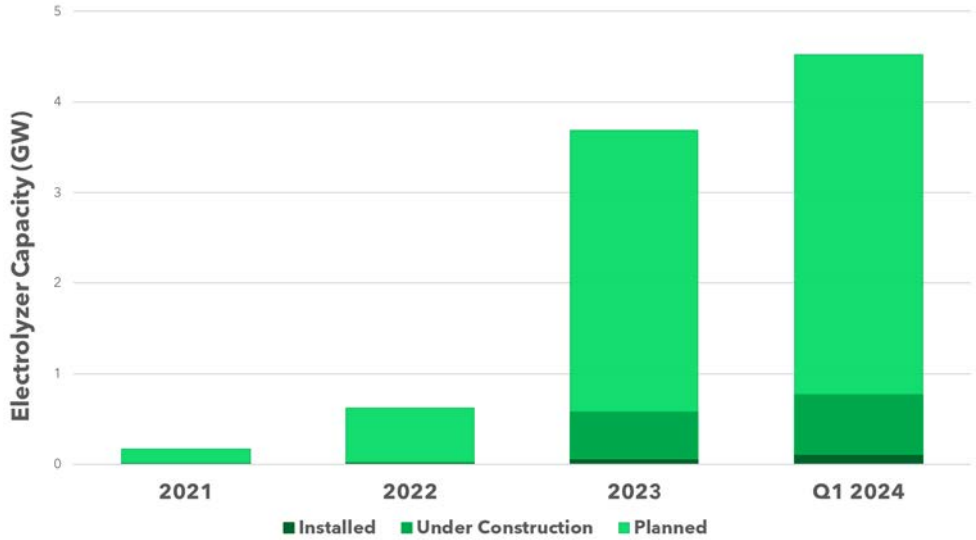


| <b>DOE Hydrogen Program Record</b>   |                          |  |
|--|--------------------------|---|
| <b>Record:</b> 24001   | <b>Date:</b> May 4, 2024 |   |
| <b>Title:</b> Electrolyzer Installations in the United States  |                          |   |
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| <b>Approved by:</b> Sunita Satyapal (DOE)  | <b>Date:</b> May 6, 2024 |   |

**Item**

Existing and planned electrolyzer installations in the United States (including firm announcements and those under construction) totaled approximately 4.5 GW as of May 2024. This is approximately a 20% increase (0.8 GW) compared to 2023, as shown in Figure 1.<sup>1</sup> Current installed capacity is approximately 116 MW, with another approximately 657 MW under construction and 3.8 GW planned (firm commitments). Similar to previous years, most of the capacity is for proton exchange membrane (PEM) electrolyzers with a nominal amount (<10%) for solid oxide electrolyzer cell (SOEC) and alkaline systems. This Record only accounts for planned and installed electrolyzer capacities of 120 kW or greater per site in this total, not including smaller units such as those under development or used for laboratory research.

**Figure 1. Existing and Planned Electrolyzer Installations (Cumulative) in the U.S. as of May 2024<sup>2</sup>**



<sup>1</sup> Arjona, V. "Electrolyzer Installations in the United States." DOE Hydrogen Program Record #23003. June 2023. <https://www.hydrogen.energy.gov/docs/hydrogenprogramlibraries/pdfs/23003-electrolyzer-installations-united-states.pdf>

<sup>2</sup> "Planned" and "Under Construction" tracked as distinct categories starting in 2023.

Figure 2 shows a map of electrolyzer installations equal or greater than 1 MW across the U.S. The capacity of electrolyzers installed at a single site today ranges up to 40 MW, while capacity for planned installations at a single site ranges up to 1.6 GW.

**Figure 2. Existing and Planned Electrolyzer Installations over 1 MW in the U.S. as of May 2024<sup>3</sup>**

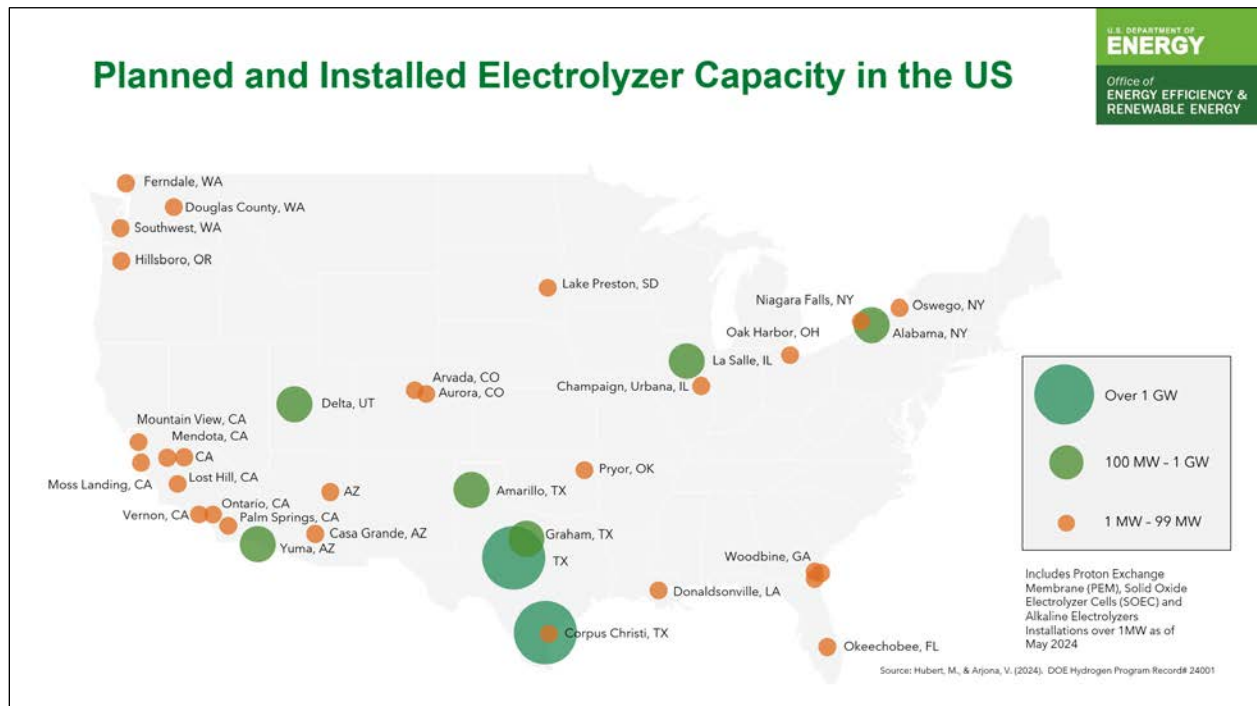


Table 1 lists locations and capacities of current and planned PEM, SOEC, and alkaline electrolyzer installations in the United States. This information is based on input from electrolyzer manufacturers and publicly available information, but listed without attribution to any individual electrolyzer company 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). As installations and announcements are continuously being updated, this Record only documents information<sup>4</sup> available at the time of this posting (May 2024).

<sup>3</sup> Bubbles not drawn to scale and are for illustrative purposes only.

<sup>4</sup> In some cases, the specific city within a state was not reported or publicly available.

**Table 1. Existing and Planned Installations of Electrolyzers (PEM, SOEC, Alkaline) in the U.S. as of May 2024**

| Location              | Power (kW) | Status                     |
|-----------------------|------------|----------------------------|
| TX                    | 1,600,000  | Planned                    |
| Corpus Christi, TX    | 1,250,000  | Planned                    |
| LaSalle, IL           | 320,000    | Planned                    |
| Amarillo, TX          | 240,000    | Planned/Under Construction |
| Delta, UT             | 220,000    | Planned                    |
| Alabama, NY           | 200,000    | Planned/Under Construction |
| Graham, TX            | 120,000    | Planned/Under Construction |
| Yuma, AZ              | 120,000    | Planned                    |
| AZ                    | 80,000     | Planned                    |
| Mendota, CA           | 80,000     | Planned                    |
| Casa Grande, AZ       | 40,000     | Planned/Under Construction |
| Woodbine, GA          | 40,000     | Installed/Operational      |
| Woodbine, GA          | 40,000     | Planned                    |
| Niagara Falls, NY     | 35,000     | Planned/Under Construction |
| Okeechobee, FL        | 25,000     | Installed/Commissioning    |
| Donaldsonville, LA    | 20,000     | Installed/Commissioning    |
| Lake Preston, SD      | 20,000     | Planned                    |
| Pryor, OK             | 10,000     | Planned/Under Construction |
| Douglas County, WA    | 5,000      | Planned/Under Construction |
| Lost Hills, CA        | 5,000      | Planned                    |
| Woodbine, GA          | 5,000      | Installed/Operational      |
| Hillsboro, OR         | 4,250      | Planned                    |
| Vernon, CA            | 4,250      | Planned                    |
| Mountain View, CA     | 4,000      | Installed/Operational      |
| Corpus Christi, TX    | 2,125      | Planned/Under Construction |
| Ferndale, WA          | 2,125      | Planned                    |
| Ontario, CA           | 2,125      | Planned                    |
| Moss Landing, CA      | 2,000      | Installed/Operational      |
| Oak Harbor, OH        | 2,000      | Planned/Under Construction |
| Palm Springs, CA      | 2,000      | Installed/Operational      |
| Southwest WA          | 1,500      | Installed/Operational      |
| Arvada, CO            | 1,250      | Installed/Commissioning    |
| CA                    | 1,250      | Installed/Operational      |
| Oswego, NY            | 1,250      | Installed/Operational      |
| Aurora, CO            | 1,000      | Installed/Operational      |
| Champaign, Urbana, IL | 1,000      | Installed/Operational      |
| DeBary, FL            | 850        | Planned                    |
| Durham, NC            | 850        | Planned                    |

|                     |     |                            |
|---------------------|-----|----------------------------|
| Hunt Valley, MD     | 500 | Installed/Operational      |
| Orlando, FL         | 500 | Planned/Under Construction |
| Sonoma, CA          | 500 | Installed                  |
| Borrego Springs, CA | 425 | Planned/Under Construction |
| Denver, CO          | 425 | Installed/Operational      |
| Kansas City, MO     | 425 | Planned/Under Construction |
| South Harrison, NJ  | 425 | Planned/Under Construction |
| Vance, AL           | 425 | Installed                  |
| Washington, IL      | 425 | Planned                    |
| Prairie Island, MN  | 360 | Planned/Under Construction |
| Depew, NY           | 300 | Installed/Operational      |
| Lihue, HI           | 280 | Installed/Operational      |
| CA                  | 250 | Installed/Operational      |
| Idaho Falls, ID     | 250 | Installed/Operational      |
| Red Wing, MN        | 250 | Planned/Under Construction |
| Austin, TX          | 180 | Installed                  |
| Austin, TX          | 180 | Installed                  |
| Boston, MA          | 180 | Planned/Under Construction |
| CA                  | 180 | Installed                  |
| CA                  | 180 | Installed                  |
| CA                  | 180 | Installed                  |
| CA                  | 180 | Installed                  |
| CA                  | 180 | Installed                  |
| CA                  | 180 | Installed                  |
| Columbus, IN        | 180 | Installed                  |
| Columbus, OH        | 180 | Installed                  |
| Costa Mesa, CA      | 180 | Installed                  |
| Emeryville, CA      | 180 | Installed                  |
| GA                  | 180 | Installed                  |
| GA                  | 180 | Installed/Operational      |
| HI                  | 180 | Installed                  |
| HI                  | 180 | Installed                  |
| HI                  | 180 | Installed                  |
| Leesport, PA        | 180 | Installed                  |
| Lexington, MA       | 180 | Installed                  |
| MA                  | 180 | Installed/Operational      |
| MA                  | 180 | Planned                    |
| Mahwah, NJ          | 180 | Installed                  |
| ME                  | 180 | Planned                    |
| MN                  | 180 | Planned                    |
| MN                  | 180 | Planned                    |
| NJ                  | 180 | Installed                  |
| Oakland, CA         | 180 | Installed                  |

|                   |                  |                            |
|-------------------|------------------|----------------------------|
| San Francisco, CA | 180              | Installed                  |
| San Francisco, CA | 180              | Installed                  |
| San Francisco, CA | 180              | Installed                  |
| San Jose, CA      | 180              | Installed                  |
| San Jose, CA      | 180              | Installed                  |
| Santa Clara, CA   | 180              | Installed                  |
| SC                | 180              | Installed/Operational      |
| Tempe, AZ         | 180              | Installed                  |
| WA                | 180              | Installed/Commissioning    |
| AZ                | 120              | Installed/Operational      |
| Braintree, MA     | 120              | Installed                  |
| CA                | 120              | Installed                  |
| CA                | 120              | Planned/Under Construction |
| CA                | 120              | Installed                  |
| CA                | 120              | Planned/Under Construction |
| Canandaigua, NY   | 120              | Installed                  |
| Hertford City, NC | 120              | Installed                  |
| KY                | 120              | Installed                  |
| KY                | 120              | Installed                  |
| Lincoln, RI       | 120              | Installed                  |
| MA                | 120              | Installed                  |
| NC                | 120              | Installed                  |
| NY                | 120              | Installed                  |
| NY                | 120              | Planned/Under Construction |
| OH                | 120              | Installed                  |
| OH                | 120              | Planned                    |
| OK                | 120              | Planned/Under Construction |
| PA                | 120              | Installed                  |
| San Carlos, CA    | 120              | Installed                  |
| San Carlos, CA    | 120              | Installed                  |
| Sugar Land, TX    | 120              | Installed                  |
| UT                | 120              | Planned/Under Construction |
| <b>Total</b>      | <b>4,523,985</b> |                            |