

HYDROGEN ENERGY & FUEL CELLS

Economic Benefits

Full-scale hydrogen energy deployment can help rebuild and revitalize the U.S. economy and accelerate American innovation.

At a time when policymakers, business leaders, and American households are focused on recovering and building back from a global pandemic and deep recession, the clean energy sector represents a critical investment opportunity and infrastructure imperative. We must seize this moment to invest in our future, transform how we power our economy, and modernize how we engage our workforce.

Hydrogen energy and fuel cell technologies offer a clear pathway toward low- and no-carbon emissions economic growth, while creating high-quality jobs and spurring advanced American manufacturing. Without increased investment on par with that of international competitors, the U.S. risks forgoing these benefits, including the opportunity to keep and create more American jobs in advanced industries and develop a leading edge in alternative energy technologies.

CREATING JOBS

A thriving hydrogen economy will create millions of high-quality, high-paying jobs.

By 2050, hydrogen could support up to 3.4 million jobs across a variety of sectors and geographies. From hydrogen production and distribution to equipment manufacturing, job growth would be felt in many regions across the country — even those that are not traditionally energy producers.

This new hydrogen job market will be inclusive, accessible, and supportive, offering a variety of both entry level and higher-paying jobs. Coupled with a robust workforce development program, the hydrogen economy has the potential to offer new skills and financial support to millions of Americans.

By 2030, annual investment of \$8 billion can drive significant growth in the hydrogen economy.

Economic Impacts by 2030



FCV Sales

1.2M



H₂ Fueling Stations

4.3k



Total H₂ Revenue

\$140B



Total Jobs in the
H₂ Economy

700k

DRIVING ECONOMIC GROWTH

A robust hydrogen industry will generate billions in revenue up and down the value chain.

With applications in diverse sectors such as transportation, power generation, and industrial processes, hydrogen energy can drive growth in a variety of markets across the U.S. economy.

Hydrogen can help meet **14%** of final U.S. energy demand, generating up to **\$750 billion in revenue per year** by 2050.

ACCELERATING INNOVATION

A rapid build-out of hydrogen infrastructure and fuel cell technology will spark U.S. manufacturing activity and innovation.

The hydrogen economy stands to generate **\$475 million in manufacturing demand** for hydrogen production and distribution equipment, specialized materials, and innovative end-use applications, helping to support American innovation and advanced manufacturing jobs.

A growing hydrogen economy would support and expand the large network of U.S. companies with existing expertise in energy production and advanced manufacturing, as well as a growing class of energy disrupters. The costs of hydrogen and fuel cell production will continue to fall as investment and R&D grows, making hydrogen a truly accessible, game-changing technology.

Estimated revenue generated along the hydrogen value chain by 2050

Billion USD



POLICY SUPPORT

Policy support can spur the development of a vibrant hydrogen economy, driving job creation and innovation up and down the value chain.

The hydrogen industry has the potential to drive significant economic growth for all Americans. Policymakers can support these efforts by:

- Supporting hydrogen fuel and fuel cell technology development with tax incentives.
- Supporting outreach and workforce development.
- Funding and engaging in public-private partnerships (e.g., DOE Hydrogen Program) to support research, development, demonstration, and deployment of clean hydrogen energy.
- Supporting infrastructure development.