

USA: Economy Movement toward Carbon Free Electricity

EGNRET-58
Honolulu, Hawaii
April 4-5, 2023

The U.S. now has aggressive climate/energy goals

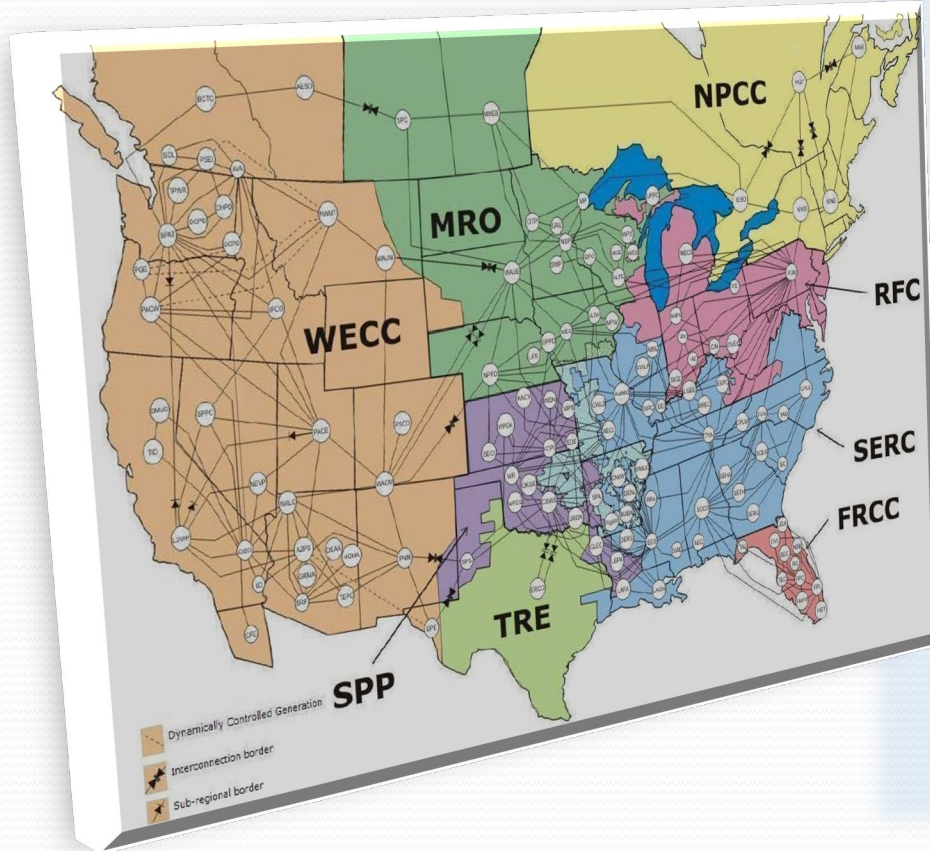
Administration Goals include:

- Net-zero emission economy by 2050 and 50-52% reduction by 2030
- 100% carbon-pollution-free electric sector by 2035

The North American Electric Grid

U.S. Figures

22% of world consumption



3,200 electric utility companies

17,000 power plants

800 gigawatt peak demand

165,000 miles of high-voltage lines

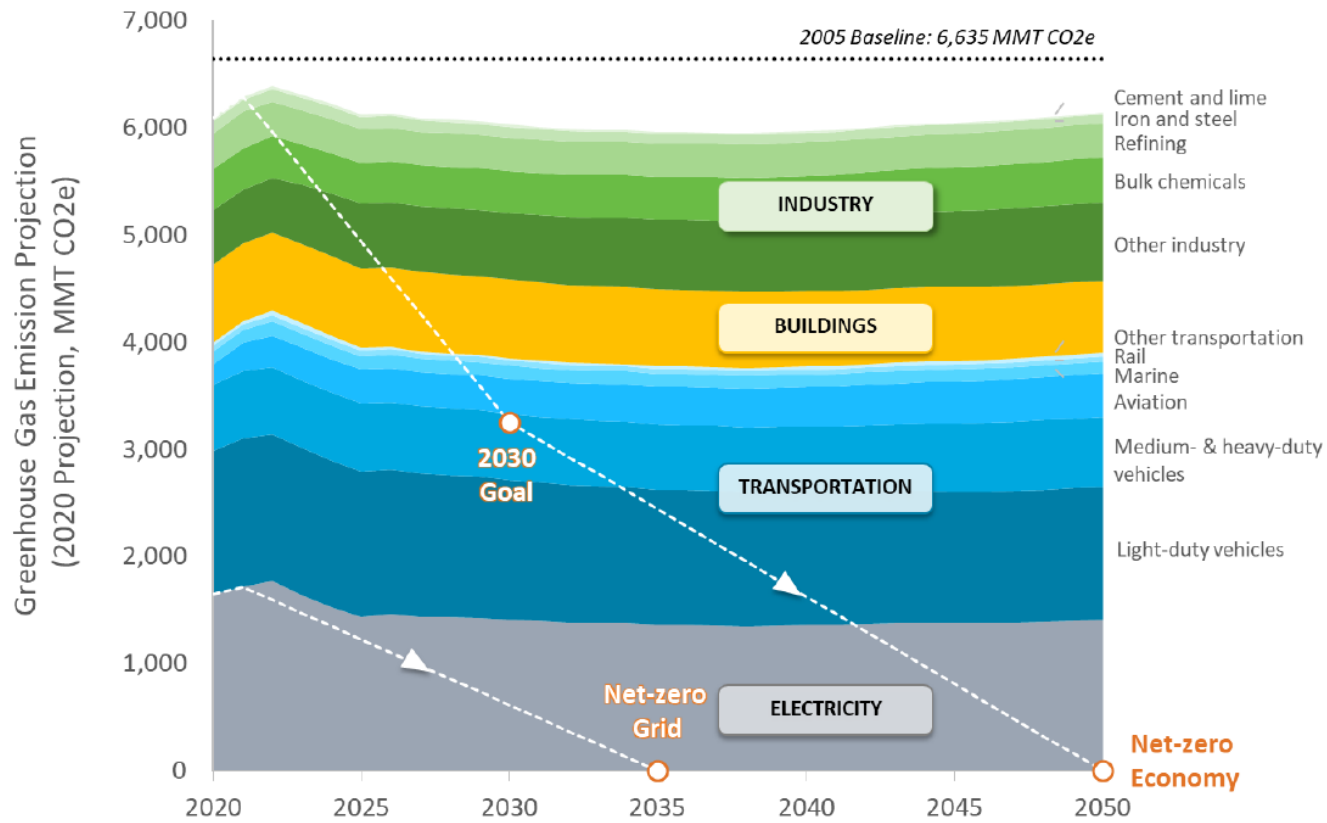
6 million miles of distribution lines

140 million meters

\$1 trillion in assets

\$350 billion annual revenues

Carbon Dioxide Emissions by Sector



Source: Annual Energy Outlook 2021, DOE National Clean Hydrogen Strategy and Roadmap

The 2021 US\$1.2 trillion (1,200,000,000,000) Bipartisan Infrastructure Law provided US\$62 billion to US DOE to deliver a clean energy future*

- Investing in American manufacturing and workers
- Expanding access to energy efficiency and clean energy for families, communities and businesses
- Delivering reliable, clean, and affordable power to more Americans
- Building the technologies of tomorrow through clean energy demonstrations

*<https://www.energy.gov/articles/doe-fact-sheet-bipartisan-infrastructure-deal-will-deliver-american-workers-families-and-0>

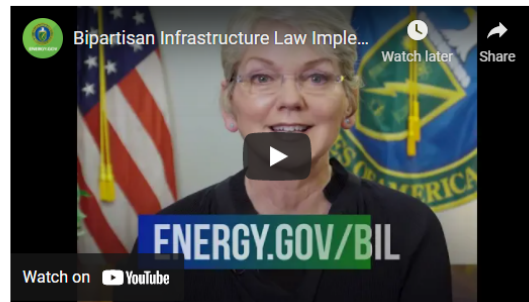
DOE Infrastructure activities are updated on a monthly basis*

Delivering for American Workers, Families, and Ushering in the Clean Energy Future

For the next five years, the Bipartisan Infrastructure Law will stand up 60 new DOE programs, including 16 demonstration and 32 deployment programs, and expands funding for 12 existing Research, Development, Demonstration, and Deployment (RDD&D) programs.

DOE looks forward to being a partner for states, communities, and industry as we move the U.S. economy towards a clean energy, lower carbon emissions future by strengthening the nation's out dated energy infrastructure.

Bipartisan Infrastructure Law in 60 Seconds (March Update)



The Department of Energy has been laser focused on delivering a clean energy future and creating more good-paying jobs across the United States.

US Department of Energy

News

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DOE Releases First-Ever Comprehensive Strategy to Secure America's Clean Energy Supply Chain

The U.S. Department of Energy (DOE) today released America's first comprehensive plan to ensure security and increase our energy independence.

FEBRUARY 24, 2022

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People Powered: AlexAnna Salmon, Village Council President

AlexAnna Salmon is a fierce advocate for her home, a remote Alaskan town called Igiugig.

FEBRUARY 17, 2022

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DOE Establishes Bipartisan Infrastructure Law's \$9.5 Billion Clean Hydrogen Initiatives

The U.S. Department of Energy (DOE) today announced two Requests for Information (RFI) to collect feedback from stakeholders to inform the implementation and design of the Bipartisan Infrastructure Law's...

FEBRUARY 15, 2022

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*<https://www.energy.gov/bil/bipartisan-infrastructure-law-homepage>

New programs are organized across five major categories

- Clean Energy Demonstrations
- Grid Infrastructure
- Manufacturing & Supply Chains
- Research & Development
- State, Community & Tribal

Bipartisan Infrastructure Programs: Grid Infrastructure*

Bipartisan Infrastructure Law » Bipartisan Infrastructure Law Programs at Department of Energy

Search:

DOE BIPARTISAN INFRASTRUCTURE PROGRAMS

Showing 1 to 12 of 12 entries (filtered from 70 total entries)

Program Category

- Clean Energy Demonstrations
- Grid Infrastructure
- Manufacturing & Supply Chains
- Research & Development
- State, Community & Tribal

New Program?

- No
- Yes

PROGRAM NAME	DOLLARS
Civil Nuclear Credit Program	\$6,000,000,000
Cybersecurity for the Energy Sector Research, Development, and Demonstration Program	\$250,000,000
Energy Sector Operational Support for Cyberresilience Program	\$50,000,000
Maintaining and Enhancing Hydroelectricity Incentives	\$553,600,000
Modeling and Assessing Energy Infrastructure Risk / Advanced Energy Security Program to Secure Energy Networks	\$50,000,000
Power marketing administration transmission borrowing authority	\$10,000,000,000
Preventing Outages and Enhancing the Resilience of the Electric Grid / Hazard Hardening	\$5,000,000,000
Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency	\$5,000,000,000
Rural and Municipal Utility Advanced Cybersecurity Grant and Technical Assistance Program	\$250,000,000
Smart Grid Investment Matching Grant Program	\$3,000,000,000
Transmission Facilitation Program	\$2,500,000,000
Western Area Power Administration Purchase of Power and Transmission Services	\$500,000,000

* <https://www.energy.gov/bil/bipartisan-infrastructure-law-programs-department-energy>

The Administration has developed a Long-Term Strategy to Net-Zero by 2050*

- The Long-Term Strategy shows that reaching net-zero no later than 2050 will require actions spanning every sector of the economy
- Modernizing the American economy to achieve net-zero can fundamentally improve the way we live, creating more connected, more accessible, and healthier communities.



* <https://www.whitehouse.gov/wp-content/uploads/2021/10/US-Long-Term-Strategy.pdf>

The Long-Term Strategy has five major elements

1. Decarbonize electricity
2. Electrify end uses and switch to other clean fuels
3. Cut energy waste
4. Reduce methane and other non-CO₂ emissions
5. Scale up CO₂ removal

Thank you for your attention!