



U.S. Department of Energy's Strategy to Advance Offshore Wind Energy in the United States

Office of Energy Efficiency & Renewable Energy

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Advancing Offshore Wind Energy in the United States

U.S. Department of Energy
Strategic Contributions Toward
30 Gigawatts and Beyond

HIGHLIGHTS



30 GW
2030



110 GW
2050



U.S. DEPARTMENT OF
ENERGY

On March 29, 2023, the U.S. Department of Energy (DOE) released [Advancing Offshore Wind Energy in the United States, U.S. Department of Energy Strategic Contributions Toward 30 Gigawatts and Beyond](#), a comprehensive summary of DOE's role in the [nationwide effort](#) to

deploy 30 gigawatts (GW) of offshore wind energy by 2030 and setting the nation on a pathway to 110 GW or more by 2050.

This Strategy also supports the Biden-Harris Administration's [goals to deploy 15 GW of floating offshore wind](#) and achieve a carbon-free electricity sector by 2035.

"The transformative potential of offshore wind energy is critical to achieving President Biden's bold clean energy goals," said U.S. Secretary of Energy Jennifer M. Granholm. "As our Offshore Wind Energy Strategy shows, we're leveraging all of the key resources across our department to harness this clean and reliable American energy source, which will create tens of thousands of good-paying, union jobs and revitalize coastal communities. This strategy will significantly drive down America's carbon emissions, establishing America as a leader in floating offshore wind technologies."

Offshore Wind Energy Strategic Initiatives

The Strategy divides DOE's offshore wind efforts into four pillars:



NOW



FORWARD



CONNECT



TRANSFORM

Near-Term Offshore Wind (NOW)

- Reduce the cost of fixed-bottom offshore wind to \$51/megawatt-hour (MWh) by 2030.
- Support the development of a robust domestic offshore wind supply chain to install and operate more than 30 GW of fixed-bottom offshore wind.
- Inform just, sustainable, and timely development of fixed-bottom offshore wind.

Floating OffshoRe Wind Accelerated Research and Development (FORWARD)

- Achieve the [Floating Offshore Wind Shot](#) goal of reducing the cost of floating offshore wind energy in deep waters far from shore to \$45/MWh by 2035.

- Support the development of a domestic supply chain to facilitate deployment of 15 GW of floating offshore wind by 2035.
- Inform just, sustainable, and timely development of floating offshore wind energy in deep waters.

CONNECT

- Coordinate and inform planning for a transmission system that integrates offshore wind energy with the U.S. electricity grid.
- Support technology innovation to increase offshore grid reliability, resilience, and interoperability.
- Support expansion of reliable and resilient grid infrastructure.

TRANSFORM

- Promote storage and wind-to-fuel technologies from offshore wind energy.
- Support the development of offshore wind energy hubs.

Learn More

[Full Advancing Offshore Wind Energy in the United States Strategy](#)

All-of-DOE Approach

DOE seeks to build on the expertise, capabilities, and resources across a range of its offices to promote offshore wind energy. This strategy identifies the many opportunities for DOE action, including the many offices that might engage in the focus areas of this strategy.

These areas include R&D to lower costs; efforts to promote just, sustainable, and timely deployment; transmission research and coordination; stakeholder engagement; supply chain development; and many other key facets of offshore wind energy deployment. Each office contributes to one or more critical areas of need.

	NOW			FORWARD			CONNECT	TRANSFORM
	COST REDUCTIONS	DOMESTIC SUPPLY CHAIN DEVELOPMENT	EXPANDED, JUST AND SUSTAINABLE DEPLOYMENT	COST REDUCTIONS	DOMESTIC SUPPLY CHAIN DEVELOPMENT	EXPANDED, JUST AND SUSTAINABLE DEPLOYMENT	TRANSMISSION DEVELOPMENT	CO-GENERATION APPLICATIONS
Advanced Materials and Manufacturing Technologies Office	●	●		●	●		●	●
ARPA-E	●			●			●	●
Grid Deployment Office							●	●
Hydrogen and Fuel Cells Technologies Office		●			●			●
Loan Programs Office	●	●	●	●	●	●	●	●
Office of Clean Energy Demonstrations	●			●			●	●
Office of Cybersecurity, Energy Security, and Emergency Response							●	
Office of Economic Impact and Diversity		●	●		●	●	●	●
Office of Electricity							●	●
Office of Manufacturing and Energy Supply Chains	●	●		●	●		●	●
Office of Science	●			●				

	NOW			FORWARD			CONNECT	TRANSFORM
	COST REDUCTIONS	DOMESTIC SUPPLY CHAIN DEVELOPMENT	EXPANDED, JUST AND SUSTAINABLE DEPLOYMENT	COST REDUCTIONS	DOMESTIC SUPPLY CHAIN DEVELOPMENT	EXPANDED, JUST AND SUSTAINABLE DEPLOYMENT	TRANSMISSION DEVELOPMENT	CO-GENERATION APPLICATIONS
Vehicle Technologies Office		●			●			
Water Power Technologies Office	●	●	●		●	●	●	●
State and Community Energy Programs			●			●	●	●
Wind Energy Technologies Office	●	●	●	●	●	●	●	●

Office of
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