Recommendation #9 [Approved February 17, 2022] on expanding project opportunities for U.S. firms pursuing international offshore wind farm projects

We recommend that the Secretary advocate for establishing a coordinated interagency strategy to measure, compare, assess, and summarize US industry competitiveness to pursue and win supply of U.S. technologies, equipment and services for international offshore wind projects. The interagency strategy should then focus on means to assist U.S. industry in pursuing and winning such projects.

Specific U.S. Government resources to support U.S. supply chain vendors for export opportunities of foreign offshore wind projects include:

1. USAID/USTDA funding of development of foreign offshore projects by US developers and US vendors.
2. DFC financing of US component or services deployed in foreign projects.
3. Funding and financial guarantees for prototype or demonstration projects using US technologies for Floating Wind offshore projects in foreign markets.

Sub-Committee(s): Technology & Innovation

Background Information: Competing nations offer complete solutions for offshore wind projects that encompass all elements for the project, including pre-development, financing, supply and installation of hardware, controls, management, and remote monitoring operations and maintenance. Presently, there appears to be no dedicated, single point of contact to help industry identify, pursue and win international offshore wind energy projects. There are some isolated initiatives across departments, but it may be more beneficial to harmonize those initiatives in one department, like a Marshall Plan, for identifying critical markets, then deploying and investing US offshore wind energy and technology in those critical markets.

Currently the U.S. renewable energy industry has significant expertise relevant to offshore wind projects in the areas of wind resource mapping and forecasting using advanced methods rooted in artificial intelligence (AI) based operations and maintenance (O&M) services. The interagency summary should an assessment of developers, financial firms, fabricators and suppliers of offshore wind hardware, technical engineering, installation services, and existing expertise in the areas of wind resource mapping, and predictive modeling for wind resource assessment, wind power system control, and post installation operations and maintenance (O&M) services. U.S. industry readiness and technology for offshore wind projects, however, lags considerably behind foreign firms, especially European and Asian firms, especially in the technology for fixed foundation wind farms as the vast majority of offshore wind projects based on fixed platform and have been built in Northern Europe.

There is a significant need for commercially feasible floating offshore wind platform technologies to be developed for application both in the United States (especially on the West Coast) and abroad. Current, floating wind technologies are not commercially feasible without significant government subsidies and supports: Additional technology development needs to be completed to get floating wind technology to the same level of maturity as fixed wind, namely commercially feasible without continued government supports. The U.S. is developing offshore wind technologies with only a modest support from the DOE, but domestic technology development is considerably behind those in Europe and Asia.

There are also comparative advantages that the United States has over foreign entities when it comes to some foreign markets. For example, a critical market could be the Caribbean basin, which benefits from proximity to U.S. suppliers and where several small nations with high electricity tariffs and high dependency on imported fossil fuels have clearly defined renewable energy targets (Table 1).

Table 1: Select Caribbean States' Renewable Energy Goals
(Compiled by the Sub-Committee)
Sources: Various NREL ETI Fact Sheets

State	Total Installed Capacity (MW)	Current Renewable Generation	2030 Renewable Generation Target
Antigua and Barbuda	118	0.0%	15%
Aruba (NETH)	230	15.4%	100%
Bahamas, The	438	0.0%	30%
Barbados	239	0.0%	29%
Cayman Islands (UK)	172	2.6%	30%
Dominica	24	28.6%	-- na --
Dominican Republic	3635	14.0%	25%
Grenada	49	1.2%	100%
Guadeloupe (FR)	508	17.5%	50%
Haiti	244	15.0%	50%
Jamaica	923	5.8%	20%
Martinique (FR)	543	24.9%	100%
Montserrat (UK)	6	0.0%	-- na --
Puerto Rico (US)*	5839	3.0%	40%
Saint Kitts and Nevis	43	5.6%	20%
Saint Lucia	78	0.0%	35%
Saint Vincent/Grenadines	48	22.0%	60%
Trinidad and Tobago	75	0.0%	5%
Virgin Islands, U.S.	316	10.0%	30%

Additional analysis of Asia Pacific, South and Southeast Asia, South America and Africa should also be completed to identify market opportunities for American technology, finance and expertise.

Expected Effect on U.S. Export Competitiveness: Many of the Caribbean states identified in Table 1 have limited land space and will find it necessary to move offshore for renewable energy supply. This can be a good market opportunity for the United States because of the proximity of the market to American fabricators and suppliers along the Gulf coast.

Specific Agencies Responsible for Implementation: U.S. Department of Commerce including the National Oceanic and Atmospheric Administration (NOAA), U.S. Department of the Interior, and other TPCC Agencies.

Measures of Success: American industry succeeding in winning international offshore wind energy projects that uses mostly American industry finance, suppliers and service providers.