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Ocean Infrastructure Priorities

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The ocean offers important solutions to mitigate the climate crisis, provide good-paying jobs, and protect coastal communities — including those that have been historically disadvantaged — from rising seas and decades of carbon emissions pollution. Offshore renewable energy development, protecting and restoring blue carbon ecosystems, and decarbonizing shipping and ports can all contribute to the U.S. goals for emissions reductions while providing other important benefits. Support for these programs should be part of any infrastructure package.

Offshore Wind

The U.S. has not kept pace with offshore wind energy expansion around the world, but President Biden recognizes that the wind industry has the potential to offer clean, renewable energy critical to our efforts to combat the climate crisis. The administration recently established a goal of 30 megawatts of wind energy production in the U.S. by 2030, which a recent industry study says could create **as many as 80,000 jobs** per year from 2025-2035. Many of these jobs will be union jobs related to the development, construction, and operation of offshore wind facilities.

Both President Biden and the CLEAN Future Act have called for the U.S. to set a deadline to achieve 100% clean energy production by 2035, and the President's offshore wind goal will be key to that. Achieving it will require action by both the Administration and Congress. President Biden's American Jobs Plan proposes investments such as upgrading ports to support expanded wind production and strengthening the domestic supply chain to produce wind turbine infrastructure in the U.S. with U.S. steel. The plan also calls for training programs focused on clean energy jobs and funding for the scientific studies needed to understand and mitigate the impacts of offshore wind on marine wildlife and other ocean stakeholders like the fishing industry.

The research and scientific studies needed to facilitate permitting and mitigate conflicts will require additional appropriations, but could also be supported, in part, by the establishment of a permanent fund that collects a percentage of wind energy royalties, bonuses, and other payments and dedicates them to this purpose. Achieving the promise of offshore wind will also require substantial investments in both onshore and offshore transmission infrastructure to integrate future projects into the grid.

Coastal Restoration and Resilience Funding

Investing in coastal restoration can improve coastal community resilience, create jobs, and mitigate climate change. Because of the dual climate and economic benefits, there is bipartisan support for making a **\$10 billion coastal and ocean restoration program** part of any larger economic stimulus and infrastructure funding package.

Coastal restoration is labor-intensive — a comprehensive NOAA analysis found that stimulus-supported restoration projects created — around 15 jobs per million dollars spent. These jobs range from construction to maritime industries to engineering and planning. Restoration can also help put fishermen to work through efforts like NOAA's Marine Debris Program, which pays fishermen to retrieve ghost gear.

Investing in natural infrastructure like coral reefs, wetlands, and salt marshes also directly saves lives and money by sheltering coastal communities from storms and flooding. One study found that during Hurricane Sandy, coastal wetlands prevented more than \$625 million in damages. This is especially important for historically disadvantaged communities that often face higher risks.

Coastal restoration can be implemented in part through the Climate Conservation Corps — a priority for President Biden. Fifteen of the nation's 35 coastal states and territories have issued an initial list of almost 600 potential coastal infrastructure projects that could begin within the next 18 months, totaling to over a \$5.7 billion investment and creating nearly 64,000 short-term jobs and over 2,000 long-term jobs. Based on this initial assessment, they estimate the total cost for all 35 states will greatly exceed \$10 billion.

Decarbonizing Shipping and Ports

Greenhouse gas pollution from shipping is significant and on the rise. Between 2012 and 2018, total greenhouse gas emissions from the sector increased by nearly 10 percent globally. Shipping now accounts for nearly 3 percent of global greenhouse gas pollution per year — a figure that rivals the annual emissions of many developed countries. On land, pollution from ports takes a heavy toll on the health of neighboring communities — in California, communities near the ports of Los Angeles and Long Beach have the region's highest cancer risk from air pollution and higher rates of asthma.

However, the shipping industry's size, operational flexibility, and access to capital create numerous opportunities for major, near-term emission reductions. According to a study from the International Transportation Forum (ITF), it may be possible to cut global shipping emissions by over 90 percent below projected emissions by 2035 through a combination of ship design, operational efficiencies, and low-carbon fuels. This includes building ships with light-weight materials, more slender designs, and better propulsion; lowering operating speeds and reducing wait times at ports; and the use of advanced

biofuels, methanol, ammonia, or hydrogen. To this end, the Biden Administration should establish national goals to reduce emissions from shipping and ports. The Administration has already announced that it will work with the U.N. International Maritime Organization to decarbonize the international shipping sector so that it can reach zero emissions by 2050.

To address port pollution, President Biden's American Jobs Plan and the CLEAN Future Act have both called for a ports infrastructure program that would reduce carbon and toxic air pollution by replacing diesel-burning cargo-handling equipment, trucks, and other port equipment with zero-emissions equipment and technology. The program would also install shore power for docked ships and electric charging stations.