



Opening Statement
Hearing on Emerging Offshore and Marine Energy Technologies
Chairman Lisa Murkowski
September 22, 2020

Good morning, everyone. The committee will come to order. We are meeting this morning to examine the development of emerging offshore energy technologies, including renewable resources like offshore wind and marine energy.

First of all, I need to start the discussion morning by just saying how much I love this topic. I hope my ranking member is paying attention. I just get so excited about this discussion, because I think the opportunities here have so much potential. I do want to make one clarification. I think that when most people hear the phrase “offshore energy,” they automatically think of offshore oil and gas development. And, while we absolutely recognize that those resources are an important part of our energy mix and contribute greatly to our energy security, oil and gas reflect only part of the potential that we have to use the ocean as a source of energy. There are numerous other ways to produce and consume energy in the ocean.

Those “other” offshore technologies have always been on the fringes here in the United States, but because of a number of technology and policy developments, we are finally starting to see them take shape, and it’s exciting.

First is offshore wind, which is poised for significant growth in the years ahead. The two small installations off the coasts of Virginia and Rhode Island have served as useful testbeds and analysts are now expecting more than 20 gigawatts of potential growth this decade. I had an opportunity to go out to Block Island and see for myself what they are doing out there some years ago. I’ve been following the development of a comprehensive environmental impact statement for the Atlantic Coast; I look forward to learning more about that process today.

I also want to note that Alaska has more offshore wind energy potential than all the other states combined. I’m always talking about how big Alaska is and how extraordinary it’s energy potential is, but we’ve got some 33,000 miles of coastline in Alaska. We have some pretty extraordinary rivers and we are surrounded by three seas and an ocean, so we have plenty of room for ocean activity there. I would hope that with further cost improvements and new technology like floating turbines, this abundant resource can further enhance our state’s energy supply.

We are also seeing significant advances in technologies like marine and hydrokinetic energy (MHK), an innovative form of hydropower that I think has historically been underutilized. Back home in Alaska, we have a jump start on MHK, with one of Offshore Renewable Power

Company's (ORPC) RivGen facilities now providing about half of the power for the rural southwest village of Igiugig. More communities in the state are interested in marine hydrokinetic after seeing Igiugig's success.

Again, I had an opportunity to go out, several years ago to visit and visit with the leadership there in Igiugig to understand what they were trying to do. And it's pretty incredible when you think of what that small river turbine is able to contribute when you feed that into the small microgrid for this village that utilizes a wind turbine, a little bit of solar, and then harness the power of that river there.

And finally, we have alternative maritime shipping fuels as a focus area for this hearing. Last year we held a hearing on the International Maritime Organization's new sulfur standard, but one area we did not dive into was IMO's expected long-term carbon reduction goals, and what the options really are for reducing emissions from shipping. A recent report from the [International Energy Agency] (IEA) found that there are opportunities in hydrogen, electricity, biofuels, and even ammonia—but developing those options will require a lot of research and development going forward.

In addition to the technologies that are the core focus of today's hearing, we have tremendous opportunities in methane hydrates from the seafloor, as well as floating nuclear reactors that can be built more cheaply and moved to where power is needed most.

Coastal states have the opportunity to expand and reimagine their ocean-based economies with these technologies, and there's plenty of space for the interior, non-coastal states to participate and to benefit by manufacturing equipment and producing similar fuels.

Taken together, these technologies can help enable a broader "blue economy" that is either untethered or interconnected with inland energy facilities. Emerging drivers of economic growth like aquaculture, seabed mining, and desalination will benefit from having directly coupled energy sources. Developing a broader range of offshore energy technologies will enable cleaner and more affordable energy for island communities, and could even help recover from natural disasters.

To again turn it back home to Alaska, I see tremendous opportunities for these technologies, both individually and in a hybrid fashion. Take Dutch Harbor, Unalaska, out in the Aleutians, for example. Imagine local communities drawing geothermal power from the Makushin volcano. Imagine them producing hydrogen and more electricity from offshore wind and marine energy to power and refuel shipping vessels that are transiting between Asia and the Lower 48. And imagine floating data centers in Cook Inlet, powered by naturally strong tides in the area. It's just endless possibilities.

If we expand research and development in each of these areas, as authorized in our American Energy Innovation Act, we can make that vision a reality. And while it may appear unlikely right now, just remember that about 10 to 15 years ago solar, onshore wind, and hydraulic fracturing all appeared to be small players in our energy economy – and yet those technologies now dominate new electricity capacity investment here in this country.

We have a great panel with us this morning, well-equipped to cover both government and private sector activities for emerging forms of offshore energy. Our panel includes:

- Mr. Daniel Simmons, who is the Assistant Secretary for Energy Efficiency and Renewable Energy at the Department of Energy;
- Dr. Walter Cruikshank, who is the Deputy Director of the Bureau of Ocean Energy Management at the Department of the Interior;
- Mr. Stuart Davies, who is the CEO of Ocean Renewable Power Company;
- Ms. Siri Kindem, who is the President of Equinor Wind U.S.; and
- Mr. Jonathan Lewis, who is the Senior Counsel at the Clean Air Task Force;

So, I want to thank all of our panelists for joining us to discuss these technologies and our sustainable blue economy. I can't think of a better time for this hearing – or to pass our energy innovation bill through the Senate – than National Clean Energy Week.

So, Senator Manchin, I turn to you for your comments and then we'll get to this great panel.

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