

Opening Statement Hearing on U.S. Leadership in Nuclear Energy and S. 903, the Nuclear Energy Leadership Act Chairman Lisa Murkowski April 30, 2019

Good morning, everyone. The committee will come to order.

We are here this morning for a dual purpose – to examine ways to reestablish U.S. leadership in nuclear energy and to receive testimony on S. 903, which is the Nuclear Energy Leadership Act, we lovingly refer to it as NELA.

America has long been a leader in the peaceful use of nuclear energy, but over time, our global role has declined. Since 2013, seven U.S. reactors have shut down before the end of their useful life, and closures are planned. Our hopes for a nuclear renaissance, as envisioned in the Energy Policy Act of 2005, and I was a member of this committee when Senator Domenici was leading things around here, and we talked often about that nuclear renaissance and we were all very buoyed and encouraged at that time, but that has paled. We have been reduced to just two reactors currently under construction.

In the meantime, China and Russia have realized nuclear energy's immense potential and are now considered the international leaders in this space. They are deploying their current reactors at rates far beyond the U.S. They are actively demonstrating advanced reactor technologies. And they are poised to take full advantage of the estimated \$740 billion in world market growth for commercial nuclear power by 2030.

The loss of our nuclear leadership to these competitor nations means a degradation of our energy security, our economic opportunities, as well as our global security.

Here in this committee we've already held two hearings looking at the impacts of climate change and particularly on the electric sector. But just a recognition that we're focused here on ways we can work within this committee's jurisdiction to lower our emissions and a recognition that if you're seeking lower emissions, look no further than nuclear energy as part of that energy portfolio mix.

My Nuclear Energy Leadership Act, which is cosponsored by Senator Booker and 16 additional Senators, is designed to reposition the United States as the undisputed world leader in advanced nuclear technology. It will focus the efforts of the Department of Energy on demonstrating advanced reactor concepts, establish a high-assay low-enriched uranium fuel program, authorize

the versatile test reactor, extend university scholarships and fellowships programs, and allow the federal government to be an early adopter of advanced reactors for national security purposes.

I want to thank Senators Manchin, Risch, Alexander, and Gardner, among others, for cosponsoring this. We have also received letters of support from an array of companies and stakeholders, including ClearPath, the Nuclear Industry Council, TerraPower, Terrestrial, and the U.S. Chamber of Commerce, I'm going to include all of their letters of support as part of the record.

Today's hearing is part of our ongoing work on nuclear policy. Last Congress, we successfully enacted two nuclear measures – the Nuclear Energy Innovation Capabilities Act and the Nuclear Energy Innovation and Modernization Act – these provide a federal framework for the development of advanced reactor technologies. And through the good work of Senators Alexander and Feinstein on the Energy and Water Appropriations Committee, we have provided greater funding to DOE's advanced reactor programs. And I really appreciate, Senator Alexander, your leadership in making that happen on the appropriations side. We all recognize that we can do a lot on the authorizing but if we have not worked on the appropriating side it doesn't follow through.

At a hearing earlier this year, we received testimony from Dr. Fatih Birol, the Executive Director of the International Energy Agency, on the need for U.S. global nuclear leadership. After the hearing, Dr. Birol wrote to me in support of NELA and noted his confidence that the bill will help address "many of the innovation and investment challenges nuclear power currently faces, and boost strategic cooperation between the government, private sector and academic institutions."

I will also include this letter for the record.

I'm particularly excited about a subcategory of advanced reactors called microreactors, which have off-grid capability and could help provide clean, affordable energy in remote towns and villages. Alaskans certainly recognize the potential of this technology – the University of Alaska held a stakeholder meeting with nuclear experts in Anchorage two weeks ago and then our State Senate held a hearing on microreactors during their legislative session in Juneau just last week.

As we pursue the future of nuclear energy, it is also important that we contend with the federal government's failure to meet its obligations for spent nuclear fuel. Solving that nuclear waste stalemate is a top priority of mine, again working with Senators Alexander, Feinstein on this, but that is one of the reasons Senators Alexander, Feinstein and myself are introducing today the Nuclear Waste Administration Act. Again, we look at how we can advance the nuclear opportunities that we have in this country, but if we haven't been able to deal with the waste side of it it's going to continue to be a struggle. So I look forward to working on that.

Before I introduce the distinguished panel that we have in front of us today, I'd like to turn to Senator Manchin for his opening remarks and then we'll do introductions.

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