WHITNEY: It’s my pleasure to welcome the co-chairs of the Energy Storage Grand Challenge. Alejandro Moreno is the Deputy Assistant Secretary for Renewable Power, Office of Energy Efficiency and Renewable Energy, and Michael Pesin is the Deputy Assistant Secretary for Advanced Grid Research and Development at the Office of Electricity. Alejandro, would you like to go ahead and get us started?

ALEJANDRO: Sure; thanks, Whitney. Thanks to the panelists, and for everybody for being here today. As Whitney said, I’m the Deputy Assistant Secretary for Renewable Power in the Office of Energy Efficiency and Renewable Energy, so EERE, where I cover all of the wind, solar, hydropower, and geothermal research in DOE and partner closely with Michael and his team in a lot of the renewable reintegration work.

Very quickly to provide just a little bit of context, which I think you probably heard throughout the day, but of course this administration has very clear goals for decarbonizing the power sector and the energy sector, getting to a fully decarbonized power sector by 2035. And it’s very clear that while this entails pretty extraordinary acceleration of deployment of wind and solar and other renewables, it also can’t be done without storage and without long-duration storage.

We, just a couple weeks ago now, published a solar futures study, which was one of the pathways; it articulates one or a few pathways of reaching close to a fully decarbonized power sector by 2035. And even without getting to 100 percent, you see almost 400 gigawatts of storage capacity installed by 2035, nearly 2,000 gigawatts by 2050.

And I think as we all recognize, there are real technical challenges to getting there. But many, many different opportunities and recognizing storage, and long-duration storage in particular, is still the space where innovation, creativity, entrepreneurship will really drive success. And both in the development of technologies, but also as you’ve been hearing today, in how we finance and regulate the industry.

When you have technologies that are designed specifically to be used sporadically and kind of unpredictably, when you have technologies whose values, sometimes it looks like generation, sometimes like delivery. Technologies that, if they had existed when the power system was first built, the entire system might look very, very different than it does today. You need to think differently and creatively about how to get the greatest value out of them. And that’s really what we heard about today.

And obviously, the same is true for the technology design itself. This is, again, one of the spaces, one of the decreasing spaces in the energy sector, particularly in the power sector, where design options are truly open, whether mechanical, electro-chemical, thermal systems, others, hybrid approaches.

And for DOE, the challenge really is balancing the need to cast a wide net and making sure we’re looking at all the different types of solution spaces, while at the same time devoting enough resources to those most promising technologies to make real progress. And you’ll hear more about how we approach that tomorrow.

And let me say, your feedback as well is absolutely essential. In the government, we’re here to support technologies to lay the foundations of research. To help make connections between developers, technology developers and end users, and to create supporting funding and financing mechanisms. But we need guidance from those of you in the industry, those of you who are end users, in how we can make those most effective, both now and in the future. So we’re very grateful for everybody’s participation.

And I’ll just note, I’ll end by noting that for us in DOE, this creativity extends to breaking down silos and recognizing we need to cut across many different parts of the department to be effective. And this long duration earth shots and energy storage grand challenge really represent that, a more goal-oriented approach that breaks down some of the technology-specific approaches that we’ve typically had inside the building.

And so, I think that’s a good segue to introduce my fellow keynote speaker from the Office of Electricity, with whom we partner with and work seamlessly with on these technologies and my co-chair at the Energy Storage Grand Challenge, Michael Pesin. So, Michael, I’ll turn it over to you.

MICHAEL: So, my role is, as I said, I’m responsible for research and development of the electricity delivery system. So, I’m working very closely with Alejandro and his team. So, it’s a two-way street, right? So, on the one hand, we need to make sure that we can accommodate all of these renewables coming on the grid and we can deliver electricity from where it’s produced to where it needs to go.

And on the other hand, we need to make sure that all these new types of resources can support regenerations, whether it’s renewable generation, new types of electrical loads such as electric vehicles, all these need to work together in harmony.

And in order to be able to do this, we need to have more flexibility on the grid. And energy storage is what gives you this flexibility. So, it’s extremely important to have the right storage deployed in the right place in the system. And we’re not talking about just batteries, we’re not just talking about just two- to four-hour duration.

As you probably talked about today, we now need to have much longer duration of storage so we can help to shift demand to the time when we have reductions, so energy storage can do that. And while we are accomplishing this, we need to make sure that we support domestic manufacturing and domestic jobs.

So, when we are developing these new technologies, these new energy storage systems, we need to create jobs; we need to create technologies that are developed by national labs to enable them to be manufactured. We need to make sure that we have supply chain that can support all of these technologies. We need to minimize the risks to the supply chain.

So, ideally, we can have a domestic supply chain that consists of earth-abandoned materials. So, all these challenges are in front of all of us, but we can’t do it alone—we need your help. So, the Department of Energy, we have this tremendous national labs that can help industry to realize what needs to happen. And we’re looking forward to working with you on these initiatives going forward. So, thank you very much, and I will turn it back to Meredith.

WHITNEY: Great, thank you, Michael; thank you, Alejandro. We have a few more success stories to share. And while those are going across on the screen, why don’t I tell you a little bit more about tomorrow. Tomorrow we have an exciting day with varying viewpoints on how we can work together to achieve the long-duration storage shot that is at that bold target to reduce the cost of grid scale energy storage by 90 percent within the decade and create a portable grid storage for clean power anytime, anywhere.

Tomorrow’s Long Duration Storage Shot Summit begins at 11 a.m. eastern time, with keynote speeches from Deputy Secretary David Turk with the U.S. Department of Energy; U.S. Congressman Bill Foster of Illinois; Gina McCarthy, a national climate advisor; Audrey Zibelman, vice president of Google X’s electric grid moonshot; Senator Angus King of Maine; and Senator Susan Collins of Maine.

We will also have a user panel that will discuss how achieving the Long Duration Storage Shot target would affect and benefit different systems and users. The panel will be moderated by Patricia Hoffman, acting assistant secretary of the Office of Electricity. She’ll be joined by Christopher Ayers, executive director at the North Carolina Utilities Commission Public Staff; Clay Koplin, CEO at Cordova Electric Cooperative; and Gia Mahmoud, head of the Future of Electric at National Grid.

If you have not done so, please sign up for tomorrow’s Long Duration Storage Shot Summit. We’ll put the link into the chat if it’s not already there, and it will be up on a slide here in just a moment. We thank you and our panelists for everybody’s time today. We’ll post all the presentations and videos on the site in the coming weeks. We look forward to seeing you tomorrow—have a wonderful end of the day.

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