



Opening Statement
Oversight Hearing on Energy Storage
Chairman Lisa Murkowski
October 3, 2017

The Committee will come to order. We had originally scheduled a business meeting of the Energy Committee to consider two nominees to the Department of Energy, but we have not been able to arrange for the sufficient number of members to advance that. So we will alert members as to when we will take that up, likely after the next scheduled vote. It's my understanding there are votes scheduled for today, so I don't anticipate that we will have this today. Know that it is my intention to try to advance not only these nominees out of committee but also those that have been moved to the floor so that hopefully we can get some of the teams filled up.

Today we are here to begin an oversight hearing to consider the status and the future of energy storage technologies. We've all heard about the benefits that can be associated with the deployment of energy storage, including increased grid reliability and resilience. And as we think about "reliability and resilience" we recognize that they have taken on even greater meaning in the wake of several recent natural disasters.

Our prayers continue to go out to all those who were impacted whether they be in Texas, or Louisiana, or Florida, and of course those facing the most desperate situation right now—Americans who live in our island territories.

Puerto Rico and the U.S. Virgin Islands are in a state of emergency right now. Our top priority is to make sure that local residents have food, water, medicine, and shelter. I have notified all members of this committee as well as the Appropriations Committee that we are looking to travel to the area as soon as the situation has stabilized enough for us to do so. And I would also anticipate that we will be holding a hearing about the status of the recovery and options for rebuilding.

There are some quick steps we can take, like the confirmation of well-qualified nominees with expertise that can be put to use in the response effort. Bruce Walker, who was before the Committee last week as the nominee to lead the Department of Energy's Office of Electricity, I think is a pretty good example of that. But there are also some longer-term steps that we can take, and that we should already be thinking about.

At the top of that list is how we can help rebuild the grids of Puerto Rico and the Virgin Islands. While the Virgin Islands' grid is not in as bad of shape as Puerto Rico, I think we recognize the situation on the ground is something that needs to be addressed. We urgently

need to restore electric power, but we need to be looking for ways to make those grids more reliable and more resilient than before.

Energy storage really has to be considered in that conversation—just as it has been part of our policy conversations here in the Committee throughout this year. In June, we held a hearing on cost trends in emerging energy technologies, including energy storage. We learned a bit about how costs are decreasing, while opportunities are increasing.

Shortly after that, we held a field hearing in Cordova to learn how hybrid microgrids can facilitate the integration of various renewable resources, while reducing costs and increasing reliability. I tell my colleagues here on the Committee all the time, so many of the remote communities in my state are completely disconnected from a traditional grid – we truly are islanded in that sense. Yet, we are innovating in unique ways, bringing local resources together to decrease dependence on expensive diesel generation. Whether it is 60 below in Alaska and you're trying to stay warm, or 100 above somewhere in the South and trying to stay cool, we need reliable and resilient systems, and storage technologies like flywheels and batteries are vital to making them work.

Today's energy storage technologies are finding market applications for a host of different value streams that they can provide. Such as frequency regulation, spinning reserve, load leveling, peak shaving, power quality, and capacity firming.

We have a lot to gain by advancing energy storage technologies—but that will also require innovative solutions to some very real challenges. Each type of energy storage technology has its own specific physical attributes based on the physics that enables it. These can be well suited for certain applications, but perhaps not so well suited for others.

Today's burgeoning lithium-ion battery markets, and other future energy storage technologies, will also provide serious challenges to our minerals supply chains. We already import at least 50 percent of 50 different mineral commodities, we cannot allow that to worsen as these technologies grow in use.

Once energy storage technologies are designed and manufactured, they also have to carve out market applications that match the value streams they can provide. So we need to ensure that federal policies do not unintentionally hinder the evolution of markets for this sector.

Energy storage offers great opportunities and we need technologies, resource supply chains, and markets that are prepared to take full advantage of them. So I look forward to hearing about the successes of today's technologies and learning more about what we expect to see in the future.

I thank the gentlemen who have agreed to join us here this morning on our panel and will now turn to Senator Cantwell for her opening comments.

###