

OPENING STATEMENT

Ranking Member Alan Grayson (D-FL)
Subcommittee of Energy
Committee on Science, Space, and Technology

Innovations in Battery Storage for Renewable Energy
Energy Subcommittee Hearing

May 1, 2015

Thank you, Chairman Weber, for holding this hearing, and thank you to our witnesses for appearing here today.

Most of us take the electric grid for granted. We flip a switch and the lights come on. But all of us have experienced outages.

Lawrence Berkeley National Lab estimated that the annual costs associated with interruptions in power are between \$22 billion and \$135 billion, most of which is borne by the commercial and industrial sectors.

As we move to manufacturing and industrial processes that rely more and more on digital technology to operate, even short outages can impact the cost of doing business. According to the Lab's study, two thirds of industrial and commercial outage costs were due to outages lasting less than 5 minutes. These outages alone translate to a \$52 billion dollar price tag.

Storage can solve this problem.

We will hear today about many of the other benefits storage can provide.

Even with these benefits, however, storage technologies may face opposition because storage is a technology that can permanently disrupt the electricity sector's business-as-usual model.

Storage allows you to buy energy when prices are low, and sell it when prices are higher. Likewise storage can be used to reduce electricity congestion, lowering prices in high market areas, which benefits consumers but lowers utility revenues.

Well placed storage units can eliminate the need for building additional transmission lines, saving consumers money. But this can also decrease utility revenues tied to rate increases for capital expenditures.

These challenges to the existing industry business model are the beginning. There's more to come. If residential storage systems become affordable, business models will need to adapt again.

It should be noted that, despite the title of this hearing, storage isn't really needed to maintain grid reliability when using renewable energy until you get to very high penetration levels of around 30 percent or more, according to the American Wind Energy Association. For now, there are actually many other mechanisms to address the variability of these resources that are more cost-effective. So a lack of storage is not an immediate show-stopper for renewables. But at some point, we may well want to go higher than 30%, and affordable large-scale storage technologies could become an even bigger game-changer for our environment as well as our energy security.

Energy storage is a powerful enabling technology that can benefit all of us. It can improve the resiliency and efficiency of our electrical infrastructure.

If we invest wisely, research programs in storage technologies can help us transition from our current grid to a future grid with lower carbon emissions. And, at the same time, federal research can open up new business opportunities, new product lines, and new international markets.

Earlier this year, Bloomberg News reported that the Japanese Ministry of Economy, Trade, and Industry (METI) may be investing more than \$400 million in grid-scale energy storage technologies. In contrast, the DOE's Office of Electricity Storage Program FY 2015 budget was \$12 million. The budget request for FY 2016 is \$21 million. We can do better than this.

Storage can be the next revolution in our energy future if we invest sensibly. We should be doing everything we can to make this future come faster.

Thank you and I yield back.