MADRI WORKING GROUP MEETING #53 – July 18, 2019

ENERGY STORAGE RESOURCES

District of Columbia Public Service Commission Commission Hearing Room Suite 800 1325 G Street NW Washington, DC

Remote Participation Web Address: https://pim.webex.com Meeting Name: MADRI Meeting number: 628 597 837 Meeting password: 9aCni2P3 Teleconference call-in number: 1-866-398-2885 (US) Participant passcode: 555398

It's been more than four years since we had a MADRI meeting focused on the topic of energy storage. Since that time, lithium-ion battery pack costs have dropped by more than 50% and deployed capacity has increased by a factor of 10. Energy storage has evolved from being an interesting but expensive experimental resource into a flexible and affordable asset that is central to any conversation about distributed energy resources.

In this meeting, we will start with a brief update on PJM's work on implementing the IEEE 1547-2018 interconnection standard, before diving into the topic of energy storage. After an overview on the status of energy storage deployment, our first panel will explore some of the ways energy storage can be used to meet the local needs of a customer, a utility, or a community. After lunch, a second panel will explore how distributed energy storage can meet bulk power system needs. Finally, we will end the day with a panel delving into some key policy and regulatory issues that influence the cost-effectiveness and viability of distributed energy storage resources.

AGENDA

9:30 – 10:00am

Networking with attendees

10:00 – 10:15am Introductions

The Honorable Harold Gray, Commissioner, DE Public Service Commission John Shenot, Regulatory Assistance Project

10:15 – 10:30amUpdate on IEEE 1547-2018 Interconnection StandardAndrew Levitt, PJM

We'll start the day with a brief update on PJM's IEEE 1547 taskforce and the latest news about implementation of the IEEE 1547-2018 standard.

10:30 – 10:45am	Energy Storage Market Snapshot Mac Keller, Smart Electric Power Association (SEPA)
	This brief session will provide context for the rest of the day. The speaker will present an overview of the status quo and forecasts of energy storage deployments and costs.
10:45am – Noon	Using Energy Storage to Meet Customer, Utility or Community Needs Marji Phillips, Direct Energy Evan Berger, CALMAC Justin Felt, Baltimore Gas and Electric Company
	The first panel will focus on the challenges and opportunities for using energy storage, including thermal storage, to better serve the needs of customers, utilities, and communities. We'll hear from two companies that provide energy storage products and services, as well as a utility that is implementing energy storage projects on its system.
Noon – 1:00pm	Lunch
1:00 – 2:00pm	Using Energy Storage to Meet Bulk Power System Needs Scott Baker, PJM Nicole Sitaraman, Sunrun
	During this session, we will consider some of the ways that energy storage is (or could be) used to meet bulk power system needs.
2:00 – 3:00pm	Policies & Regulations that Influence the Viability of Energy Storage Resources Nitzan Goldberger, Energy Storage Association Todd Olinsky-Paul, Clean Energy Group
	The costs and the benefits of installing and operating energy storage resources are inevitably shaped by policies and regulations, most of which reside at the state or utility level. The final panel will examine some of the state and utility policies that have the greatest impact on the cost-effectiveness and viability of storage and its usefulness as a grid asset.
3:00 – 3:15pm	Wrap-Up, Adjournment The Honorable Harold Gray, Commissioner, DE Public Service Commission John Shenot, Regulatory Assistance Project