

4<sup>TH</sup> ANNUAL  
ENERGY STORAGE GRAND CHALLENGE  
SUMMIT

**Energy Storage's  
Role for Critical  
Infrastructure  
and Resilience**

Moderator: Nate Blair, NREL

Panelists

Pavan Kundurthi, Manager, Field Engineering, AWS

Jeff Dagle, Chief Electrical Engineer, PNNL

Jill MacKay, VP, Commercial Operations, Potelco Inc.



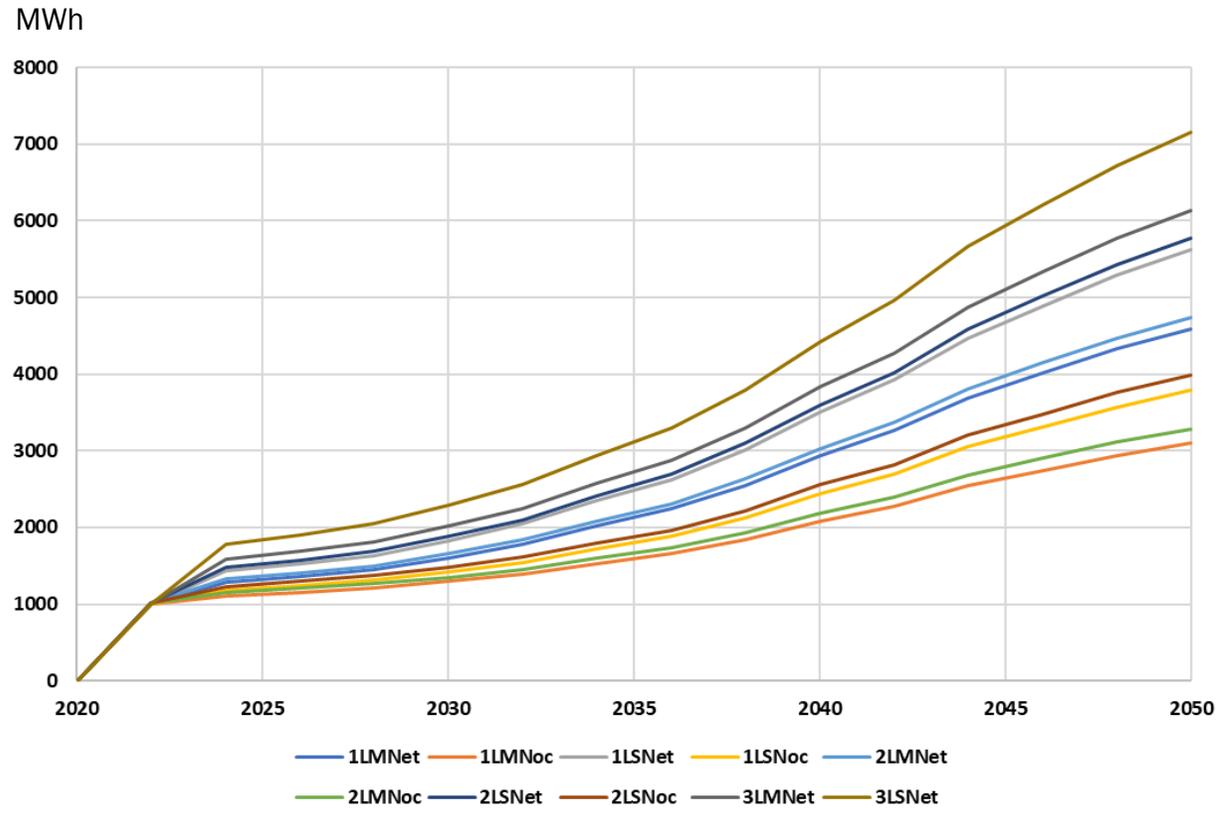
## Value of Critical Infrastructure and Resilience



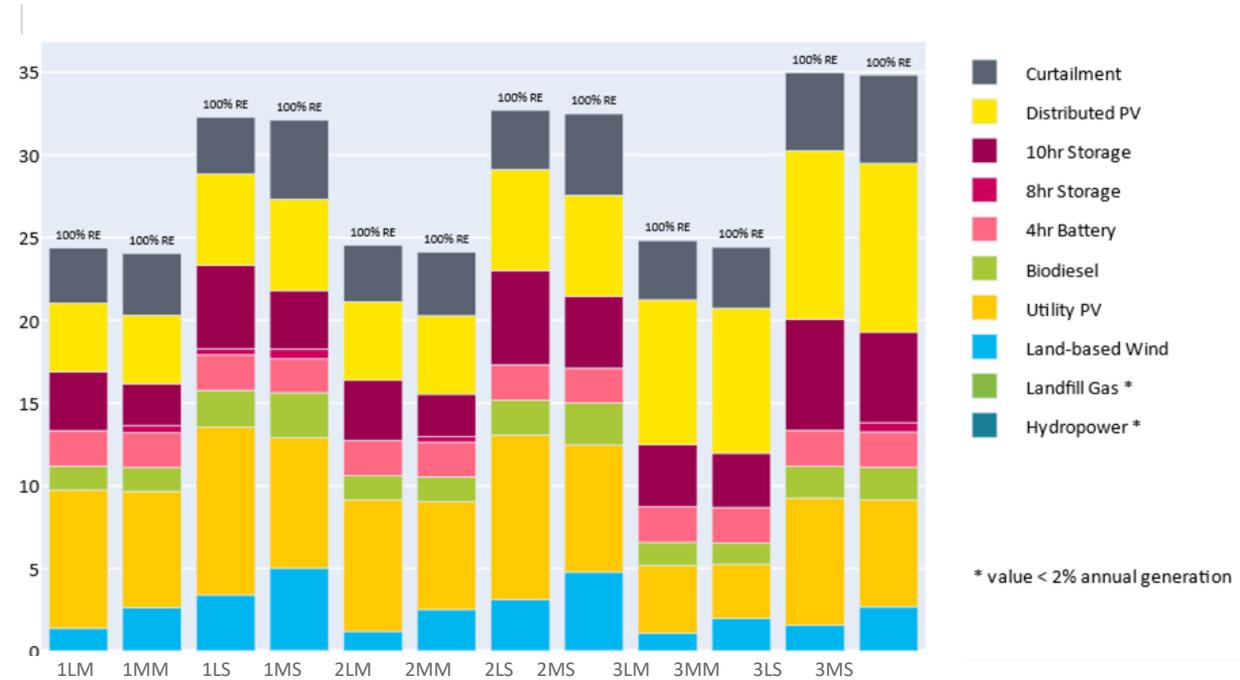
- Overview of the Storms

- Irma hit the island on Sept. 6, 2017 knocking out power to almost a million customers.
- Two weeks later Maria hit, crossing almost the entire island from southeast to northwest.
- PREPA was still restoring power to hundreds of thousands of customers knocked out by Irma when Maria hit and caused a systemwide collapse.
- The double punch knocked out 80% of Puerto Rico's electric grid.
- This resulted in the largest blackout in U.S. history and the second largest in the world – thousands died as a result.
- Thousands were without power up to a year after Maria

# Where could Storage Support Puerto Rico support resiliency and critical infrastructure?



Significant distributed storage (with rooftop PV) across all scenarios



Mix of electricity resources (generation in TWh) to achieve 100% renewable energy



**PAVAN KUNDURTHI**

Manager, Field Engineering  
Amazon Web Services



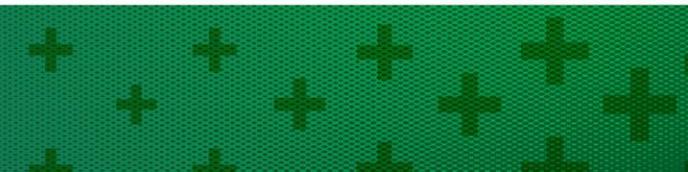
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**THANK YOU**