



NEW ENGLAND ROUNDTABLE – SOLAR AND STORAGE ILAN GUTHERZ, SENIOR DIRECTOR OF POLICY AND STRATEGY



BORREGO SOLAR

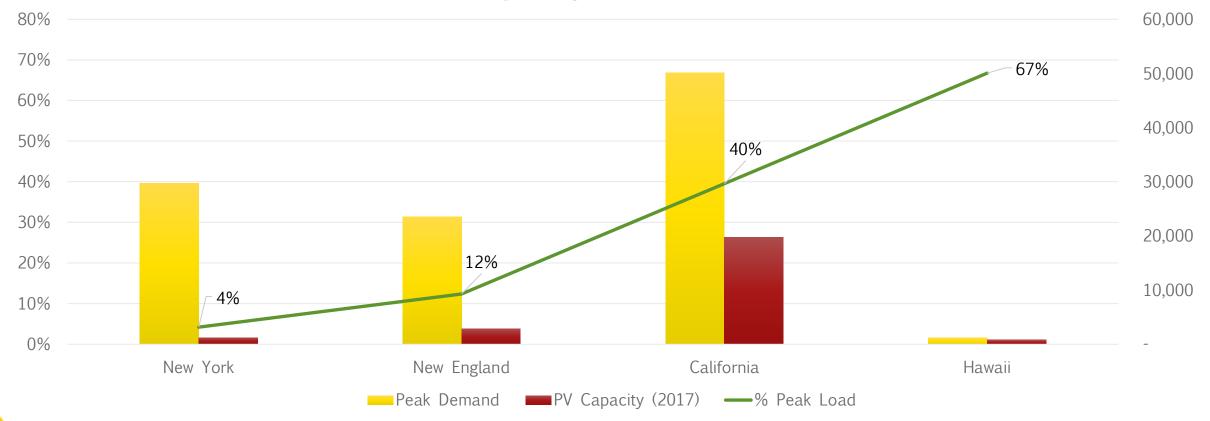
• History

- Founded 1980
- Entered New England in 2007
- Launched Energy Storage Division in 2016
- Currently focused on C&I, community, and small utility solar and storage
- Services:
 - EPC
 - Development
 - 0&M

HOW MUCH IS TOO MUCH?

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PV Capacity vs. Peak Load



WHAT VALUES DO SOLAR AND STORAGE PROVIDE?

Services & Benefits	DG Solar	Storage	Utility Solar
Energy	✓		\checkmark
Peak Energy Reduction	\checkmark	\checkmark	\checkmark
Generation Capacity	\checkmark	\checkmark	\checkmark
Transmission Capacity	\checkmark	\checkmark	\checkmark
Reduced Long-Term Transmission Cost	\checkmark	\checkmark	
Avoided Transmission Line Losses	\checkmark	\checkmark	
Reduced Distribution Costs	\checkmark	\checkmark	
Ancillary Services	\checkmark	\checkmark	\checkmark
Demand Charge Reduction	\checkmark	\checkmark	
Greenhouse Gas Reduction	\checkmark	✓	\checkmark
Conventional Pollutant Reduction	✓	✓	\checkmark
Jobs & Economic Investment	✓	✓	\checkmark
Fuel Security and Hedging	✓	\checkmark	\checkmark

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HOW DOES MASSACHUSETTS STACK UP?

Services & Benefits	DG Solar	Storage	Utility Solar
Energy	\checkmark		\checkmark
Peak Energy Reduction	\checkmark	\checkmark	\checkmark
Generation Capacity	\checkmark	\checkmark	\checkmark
Transmission Capacity	\checkmark	\checkmark	\checkmark
Reduced Long-Term Transmission Cost	\checkmark	\checkmark	
Avoided Transmission Line Losses	\checkmark	\checkmark	
Reduced Distribution Costs	✓	\checkmark	
Ancillary Services	\checkmark	\checkmark	\checkmark
Demand Charge Reduction	\checkmark	\checkmark	
Greenhouse Gas Reduction	✓	\checkmark	\checkmark
Conventional Pollutant Reduction	✓	\checkmark	✓
Jobs & Economic Investment	\checkmark	\checkmark	\checkmark
Fuel Security and Hedging	\checkmark	\checkmark	\checkmark

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HOW DOES NEW YORK STACK UP?

Services & Benefits	DG Solar	Storage	Utility Solar
Energy	\checkmark		\checkmark
Peak Energy Reduction	\checkmark	\checkmark	\checkmark
Generation Capacity	\checkmark	\checkmark	\checkmark
Transmission Capacity	\checkmark	\checkmark	\checkmark
Reduced Long-Term Transmission Cost	\checkmark	\checkmark	
Avoided Transmission Line Losses	\checkmark	\checkmark	
Reduced Distribution Costs	✓	\checkmark	
Ancillary Services	\checkmark	\checkmark	\checkmark
Demand Charge Reduction	\checkmark	\checkmark	
Greenhouse Gas Reduction	✓	\checkmark	\checkmark
Conventional Pollutant Reduction	\checkmark	\checkmark	\checkmark
Jobs & Economic Investment	\checkmark	\checkmark	\checkmark
Fuel Security and Hedging	\checkmark	\checkmark	\checkmark

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WHERE TO FROM HERE?

	Current State	Future State
Utility Distribution Planning	Focused on serving load; DG viewed as a burden	Focused on serving load and DG, DG viewed as essential customer/component of the grid
Utility Compensation	Returns based on construction of large new physical assets (poles, wires, transformers)	Returns based on customer service, reliability, and providing fair, open access to the grid
DG Compensation	Rough justice (NEM) with policy supports to address missing values or "Value of Solar" tariffs with significant flaws	Fully actualized markets or tariffs for most DG benefits + alternative mechanisms to compensate DG for other benefits



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CULTIVATE POTENTIAL