

# Examples of Market Participation of Solar-Battery Mixed Technology Facilities

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# Example 1: 150 MW MTF w/o Interactions

- 150 MW Maximum Facility Output and interconnection power limit
- 100 MW solar
- 50 MW/200MWh battery (4 hour class)

	Capacity*	Energy	Regulation	Reserves
<b>Co-Located</b>	<b>95.5 MW</b>	<b>100% except solar curtailments.</b>	<b>50 MW</b>	<b>100 MW</b>
--100 MW Solar	54 MW	100% of AC solar energy output can be sold (except curtailments)	N/A	N/A
--50 MW Battery	41.5 MW	Can arbitrage 100% of storage.	Can sell up to 50 MW	Can sell up to 100 MW (only when battery full charging)
<b>Hybrid</b> <b>150 MW</b>	95.0 MW	<b>100% of AC solar energy output can be sold, can arbitrage 100% of storage on top of solar. "Curtailments" (ie dispatch below solar availability) can be taken up via battery charging.</b>	<b>50 MW</b>	<b>100 MW</b> (only when battery full charging, assuming no solar is being "spilled")

\*Using 2023/24 ELCC Class Ratings: <https://www.pjm.com/-/media/planning/res-adeq/elcc/elcc-class-ratings-for-2023-2024-bra.ashx>  
Assuming 100% Performance Adjustment and 54% class rating for solar, 0% EFORd for storage, 83% class rating for standalone storage and 82% class rating for hybrid storage.



## Example 2: 100 MW MTF

- 100 MW Maximum Facility Output and interconnection power limit
- 100 MW solar
- 50 MW/200MWh battery (4 hour class)
- Battery cannot discharge when solar is at 100% output, so there are significant interactions between the components.

	Capacity*	Energy	Regulation	Reserves
Co-Located	N/A			
Hybrid 100 MW	95.0 MW	100% of AC solar energy output can be sold, can arbitrage 100% of storage on top of solar. “Curtailments” (ie dispatch below solar availability) can be taken up via battery charging.	50 MW	100 MW (assuming no solar is being “spilled”)

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Assuming 100% Performance Adjustment and 54% class rating for solar, 0% EFORd for storage, 83% class rating for standalone storage and 82% class rating for hybrid storage.