



# Electricity Storage Valuation Framework:

Assessing system value and  
ensuring project viability

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# Electricity Storage Valuation Framework

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ensuring project viability

**Part 1.** Why storage valuation matters

**Part 2.** Using power system models to assess value and viability

**Part 3.** Real-world cases of storage use in power systems

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# Abbreviations

<b>AC</b>	alternating current
<b>AEMO</b>	Australian Energy Market Operator
<b>APS</b>	Arizona Public Service
<b>BTM</b>	behind the meter
<b>CAES</b>	compressed air energy storage
<b>CAISO</b>	California Independent System Operator
<b>CAPEX</b>	capital expenditure
<b>CMP</b>	Central Maine Power
<b>COE</b>	cost of energy
<b>C-rate</b>	charge (or discharge) rate of a battery
<b>CSP</b>	concentrated solar power
<b>DAM</b>	day-ahead market
<b>DoD</b>	depth of discharge
<b>DSR</b>	demand-side response
<b>EFR</b>	enhanced frequency response
<b>ERCOT</b>	Electric Reliability Council of Texas
<b>ESS</b>	energy storage system
<b>ESVF</b>	Electricity Storage Valuation Framework
<b>EV</b>	electric vehicle
<b>FCAS</b>	frequency control ancillary services
<b>FCR</b>	frequency containment reserves
<b>FERC</b>	Federal Energy Regulatory Commission
<b>FFR</b>	fast frequency response
<b>FIP</b>	feed-in premium
<b>FIT</b>	feed-in tariff
<b>FOM</b>	fixed operational and maintenance (costs)
<b>FRD</b>	flexible ramping down
<b>FRP</b>	flexible ramping product
<b>FRU</b>	flexible ramping up
<b>HPR</b>	Horndale Power Reserve
<b>IRENA</b>	International Renewable Energy Agency
<b>IRR</b>	internal rate of return
<b>ISO</b>	independent system operator
<b>ITC</b>	investment tax credit
<b>kg</b>	kilogram
<b>kW</b>	kilowatt
<b>kWh</b>	kilowatt hour