

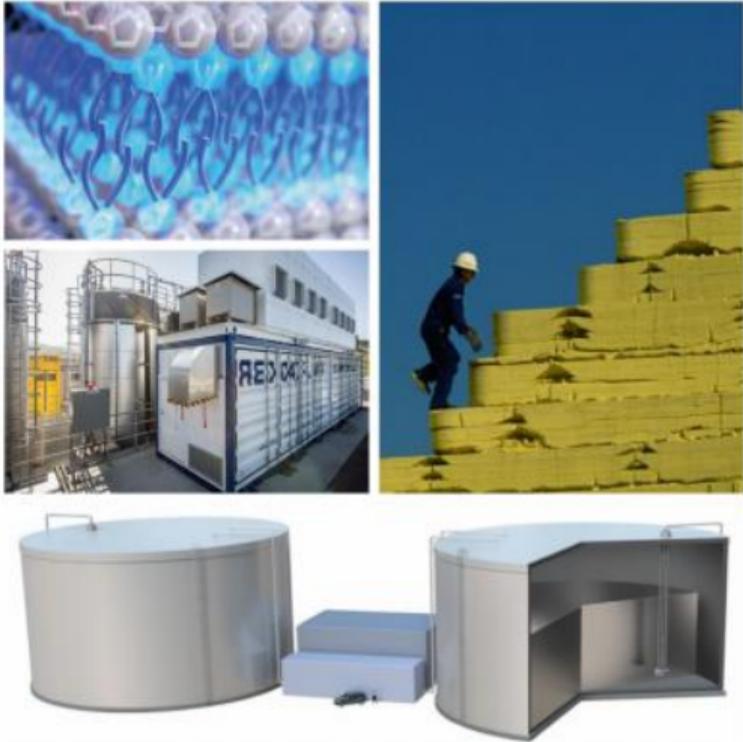
Economics of Energy Storage - Jing Li, MIT Sloan



Hornsdale Power Reserve, 100MW/129MWh. Pic: Neoen

- Key climate change and sustainability goals
 - Integrate renewable generation sources
- Social and private benefits not aligned (Karaduman, 2019)
- Should storage procurement be mandated?
 - Mandates in many U.S. states
 - Risk of picking winners and losers
 - Expensive and long-lived investments

Our project: Electricity Market Design with Storage



Credit from top left:

MIT News, ComputerWorld, Getty Images via Inc.com, MIT News

- Different costs and comparative advantages
 - Alleviate transmission congestion
 - Stabilize voltage and frequency levels
 - Smooth intraday volatility from solar and wind
 - Extended discharge times
- Goal:
 - Pay for services that matter for society
 - Let the market pick the best mix of solutions
 - Do not distort R&D and investment