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# Oahu Storage Study

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# Oahu Storage Study

- Motivation
  - With a 100% RPS by 2045, energy storage seems logical
  - What is the value of storage in the near term?
- Model Design
  - System year 2018
  - 2014 hourly load, utility solar, and wind data – from HECO
  - 2014 distributed solar data - generated at Sandia
  - BESS is allowed to either perform Arbitrage or supply Contingency Reserve, but not do both
  - Three main sensitivities were performed:
    - BESS sizes: 50 MW, 100 MW, and 150 MW (all with  $\frac{1}{2}$  hr storage capacity)
    - With and without a Renewable Reserve
    - With and without a Quick Start Reserve backup for a BESS supplying contingency reserve
  - Submitted a journal paper in June, 2017 (Journal of Energy Storage)