

Solar[®] Energy Storage

Providing balance and harmony for our customers energy needs



Solar Turbines

A Caterpillar Company

Caterpillar: Non-Confidential

Applications for Energy Storage? – Just a Few

Swiss Army Knife of
Energy



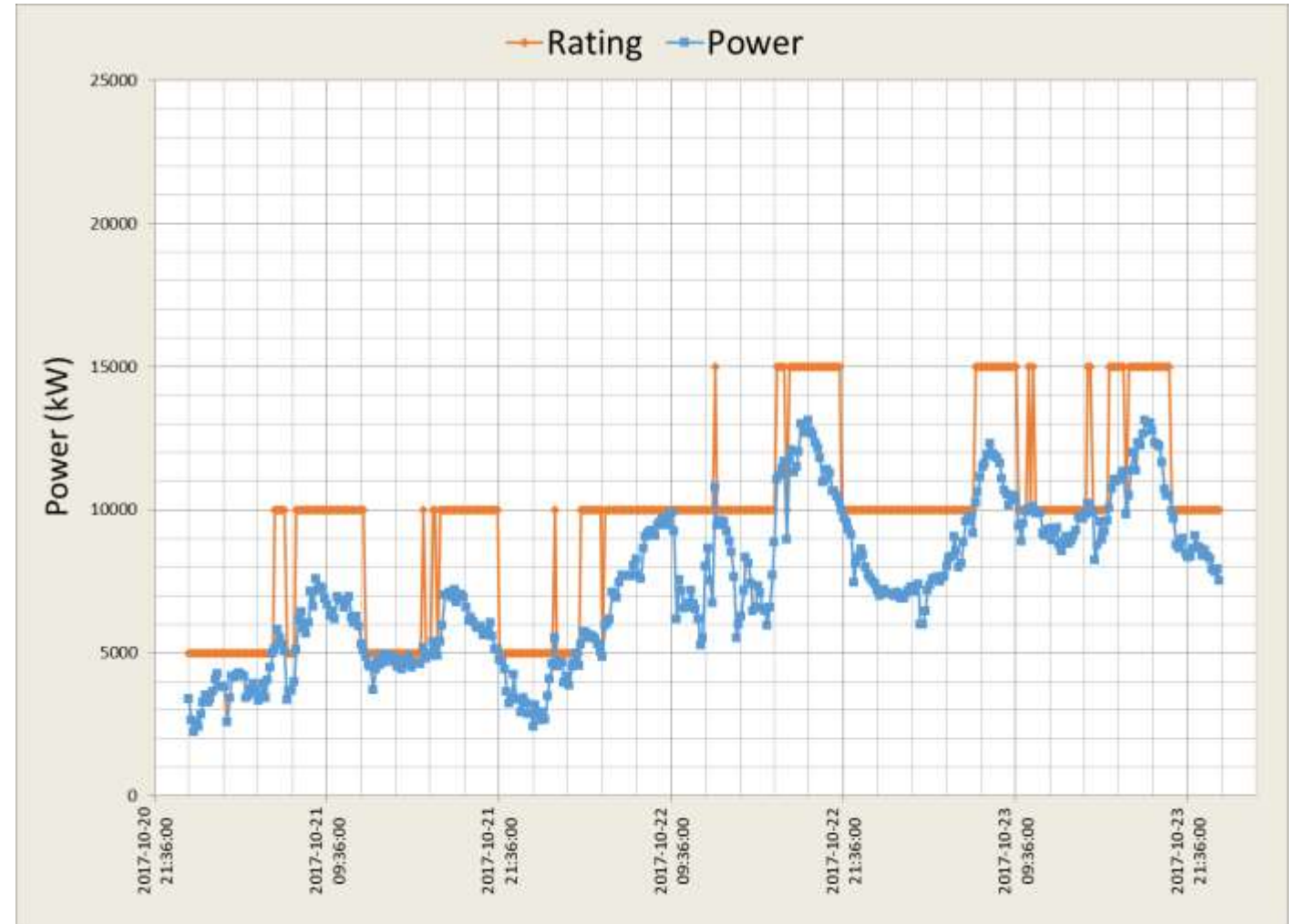
Spinning Reserve

- Remote, Isolated Site
 - No Grid Connection
- 7 X 5MW Gas Turbines
 - Operates N+1 scenario
 - Average efficiency 23%
- 10 MW Windfarm
 - Minimize require connections at site



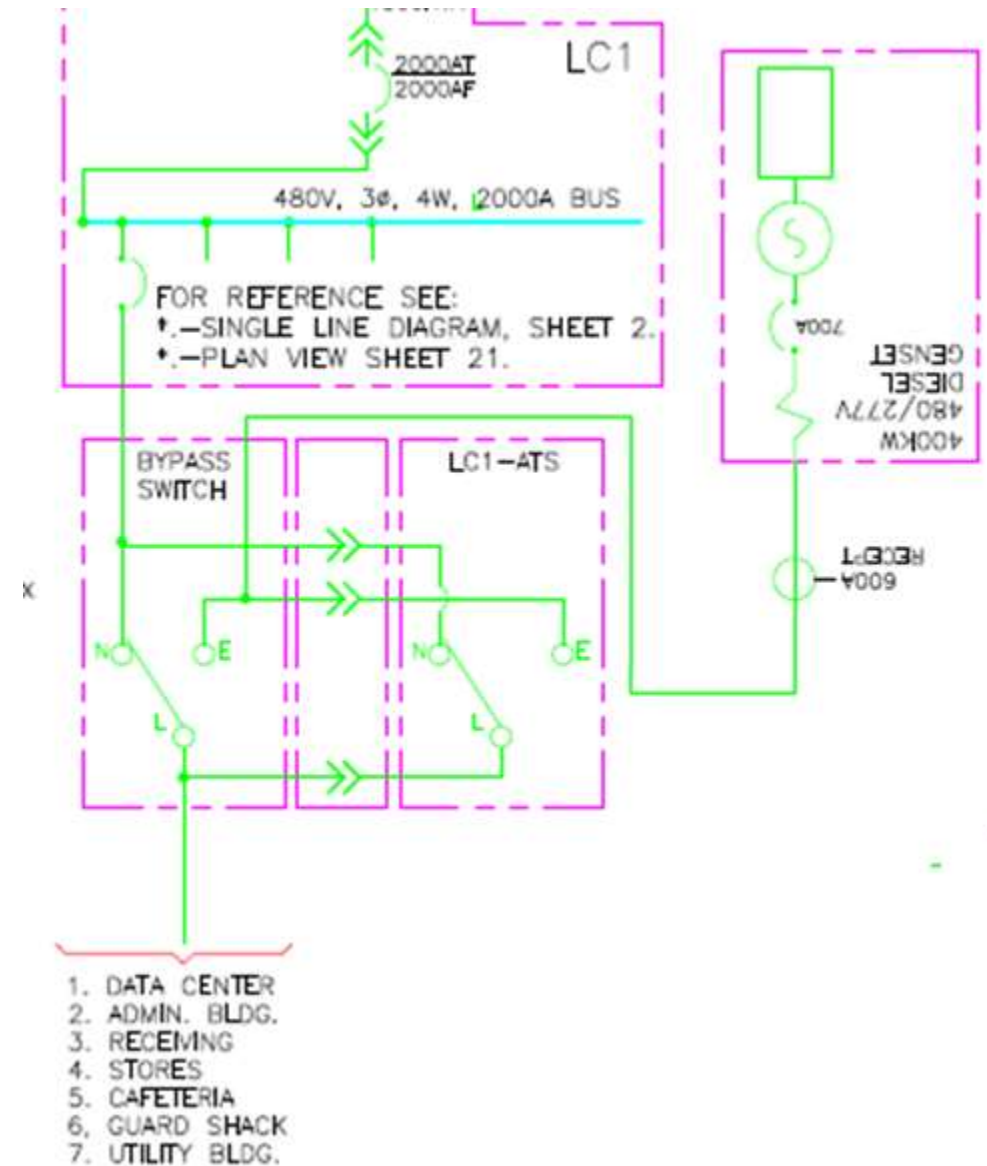
Spinning Reserve

- Add 5MW Energy Storage
- 7 X 5MW Gas Turbines
 - Operates Energy Storage scenario
 - Average efficiency Increases to 28%
- Save 200,000 kWh a day



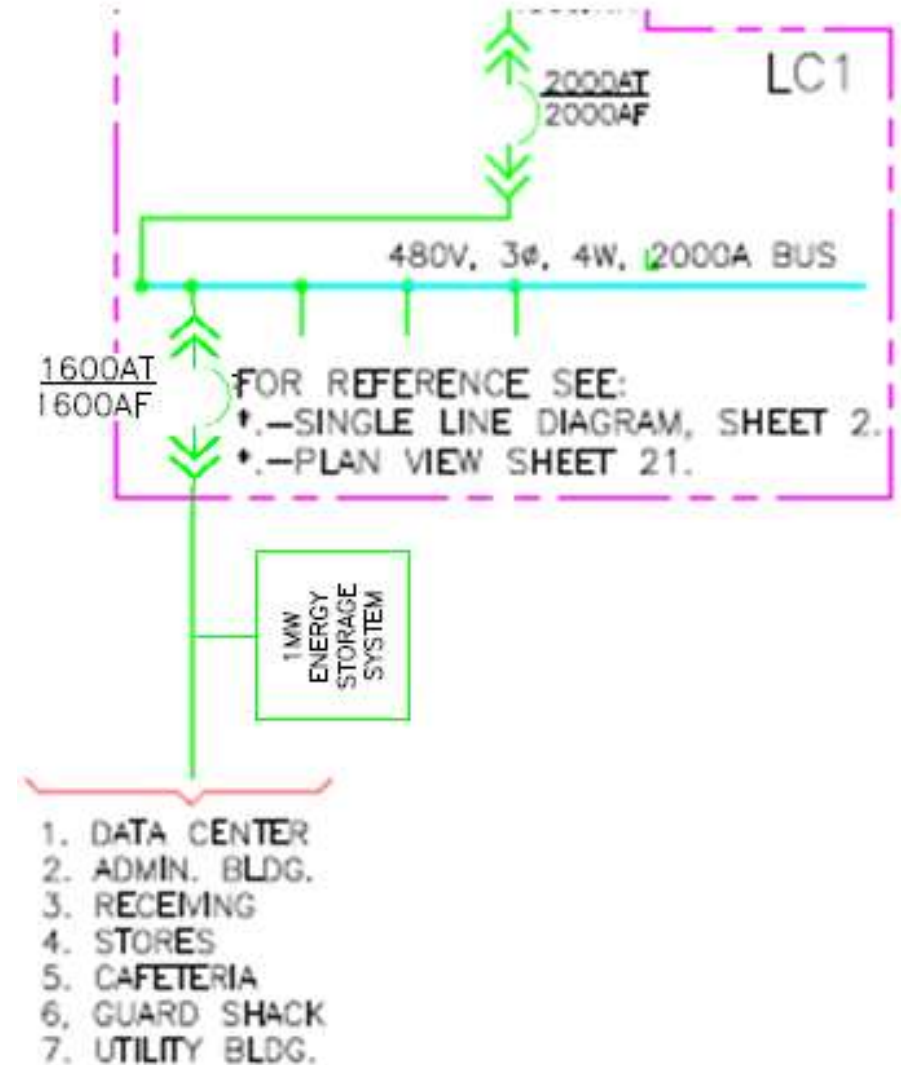
UPS Application

- 400 kW Diesel Genset
 - Requires Permitting
 - Document when used
- ATS & UPS
- Supplies Critical Loads
 - Data Centre
 - Admin Buildings



UPS Application

- Remove Back-up Diesel
 - No Permitting
- Remove ATS/UPS
 - Reduce maintenance
- Savings



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