

Data centre BESS deployment cuts peak charges and secures critical uptime.

WHERE THE BEST GET BETTER

A Tier III data centre in Lagos faced unstable grid supply, high diesel dependency, and rising peak tariffs. ASE Consultings delivered a CATL battery energy storage system with EMS integration, achieving 99.5% uptime and 28% reduction in peak demand charges within 90 days of commissioning.



PEAK CHARGE REDUCTION

28%

Monthly demand savings

CRITICAL UPTIME

99.5%

Grid outage protection

DIESEL OFFSET

42%

Generator runtime reduction

PREPARED BY

ASE Consultings

REVIEWED BY

APPROVED BY

PROJECT SUMMARY

Challenge

The data centre experienced 8-12 grid outages per month, each requiring diesel genset start-up. Peak tariff exposure during business hours added 18% to monthly energy costs. The facility needed seamless switchover, tariff optimisation, and reduced diesel dependency without compromising Tier III availability targets.

Solution

ASE Consultings designed and commissioned a 407 kWh CATL cabinet BESS with Huawei PCS and EMS integration. The system provides peak shaving during tariff windows, instant backup during grid failures, and optimised genset cycling. Remote monitoring dashboards and local service agreements ensure long-term performance.

TECHNICAL SCOPE

SYSTEM CAPACITY

407 kWh

CATL LFP CABINET

POWER OUTPUT

200 kW

CONTINUOUS DISCHARGE

SWITCHOVER TIME

<20 ms

UPS-GRADE RESPONSE

OUTCOME

ENERGY COST

22% reduction

ANNUAL OPEX SAVINGS

GENSET HOURS

42% fewer

MAINTENANCE SAVINGS

PAYBACK PERIOD

3.2 years

ROI TIMELINE

DELIVERABLES

Engineering pack

- Load study and tariff analysis
- Single-line diagram with protection settings
- EMS/PCS configuration and set points
- Fire safety and ventilation design

Commissioning evidence

- FAT and SAT test reports
- Performance run verification
- Remote monitoring dashboard setup
- O&M manuals and warranty pack

TIMELINE

WEEK 1-2: SITE SURVEY +
LOAD STUDY

WEEK 3-8: DESIGN +
PROCUREMENT

WEEK 9-12: INSTALLATION +
COMMISSIONING

WEEK 13+: MONITORING +
AFTERCARE

CONTACT

Start your energy storage scope

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