

gffhfh, Lake td, 200.00MW/800.00MWh Battery Energy Storage System

1. Bill of Materials

The table below describes the hardware included within Prevalon's scope at the beginning of life:

Component	Description	Quantity
LFP Cooled Battery Enclosures	Standard-sized ISO 20' NEMA 3R enclosure with battery modules pre-installed, featuring: 1) Up to 5.11MWh DC Nameplate Energy per enclosure. 2) Dimensions: 20' (L) x 9.5' (H) x 8' (W) or 6,058mm (L) x 2,896mm (H) x 2,438mm (W)	198
Power Conversion System (PCS) stations (includes Inverter and Medium Voltage (MV) Transformer)	1) Integrated skid containing 4MVA Inverter and mineral oil-filled transformer - 2) AC Output Power: 4,000kVA @ 40 deg C 3) 4,000kVA 0.80kV/34.5kV mineral oil (PCB free) filled MV Transformer 4) Dimensions: 20' (L) x 9.5' (H) x 8' (W) or 6,058mm (L) x 2,896mm (H) x 2,438mm (W)	66
EMS / SCADA	Energy Management System with SCADA interface for BESS Dispatch and Control	Included
Master Fire Panel	Environmentally controlled NEMA 3R enclosure housing master fire panel with battery backup	Included

2. Design Summary

The system requirements and BOL performance for the 200.00MW/800.00MWh BESS are summarized in the tables below. This follows the planned augmentation schedule.

Parmeter	Value
Power Required at Point of Measurement (POM) in kW AC	200,000
Energy Required at POM in kWh AC	800,000
Point of Measurement (POM)	High Side of HV Transformer
Performance Period (Years)	18
Number of cycles per year	up to 365 cycles/year
Average Resting State of Charge (rSOC)	≤ 50%
Operating Temperature Range (°C)	-20 deg C to 40 deg C
Altitude	≤ 1000 meters above Mean Sea Level (MSL)
Power Factor Required at POM	0.95

Following losses to the Point of Measurement (POM) are considered in the BESS design

Parameter	Losses(%)
DC Cables*	0.50%
Inverter	1.60%
Medium Voltage Transformer	1.10%
Medium Voltage AC Cables*	0.50%
High Voltage Transformer*	0.30%

*Losses outside of Prevalon's Scope. To be confirmed by the Buyer

200.00MW/800.00MWh Proposed BOL Solution

Parmeter	Value
Total Number of Battery Enclosures	198
Number of PCS/Transformers	66
PCS/Transformer Model	Sungrow SC4000UD-MV-US
BESS Peak Aux Power (kW) (included in Total BESS AC Power Required at POM)	6,211.38
Aux Energy during discharge (kWh) (included in Total BESS BOL AC Usable Energy Required at POM)	9,824.87
BESS BOL AC Usable Energy net of Aux Energy at POM (kWh AC)	868,180.00

3. System Augmentation Plan

To maintain the discharge energy delivered at the POM throughout the 18-year non-degrading energy period, Prevalon recommends augmenting the BESS by periodically installing additional battery storage in parallel with the original system. This results in a more attractive CAPEX.

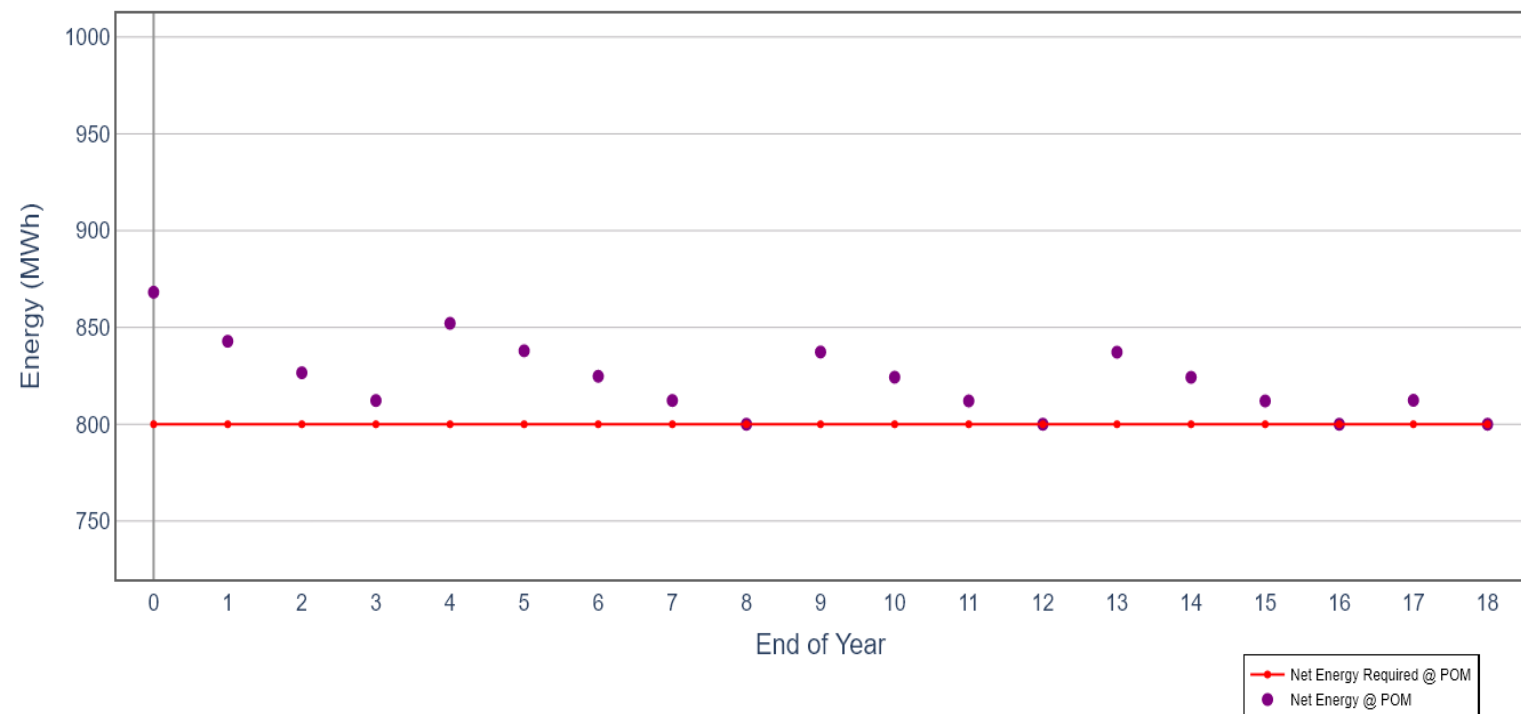
Planned augmentation also allows Buyer to take advantage of expected future battery performance improvements and price reductions. It also provides the additional flexibility of being able to size the system based on actual usage in case it differs from the original plan.

Augmentation Number	Augmentation Year	Augmentation Nameplate Energy (kWh)
1.0	4.0	63,527.76
2.0	9.0	58,711.01
3.0	13.0	58,386.54
4.0	17.0	28,868.45

4. BESS Annual Energy Capacity

The curve below shows AC Usable Energy including auxiliary consumption at POM throughout the 18-year Project Life.

Lake td | gffhfh | 800 MWh Energy Capacity @ High Side of HV Transformer | 365 cycles/year



5. Estimated BESS Annual Performance

End of Year	Usable AC Power at POM (MW)	Usable AC Energy at POM (MWh)	AC RTE including Aux at POM (%)
0	200.00	868.18	85.39%
1	200.00	842.86	85.31%
2	200.00	826.59	85.23%
3	200.00	812.24	85.16%
4	200.00	852.14	85.10%
5	200.00	837.94	85.05%
6	200.00	824.79	85.00%
7	200.00	812.27	84.95%
8	200.00	800.00	84.91%

9	200.00	837.32	84.87%
10	200.00	824.30	84.83%
11	200.00	812.05	84.79%
12	200.00	800.00	84.76%
13	200.00	837.23	84.73%
14	200.00	824.24	84.69%
15	200.00	812.02	84.67%
16	200.00	800.00	84.63%
17	200.00	812.36	84.60%
18	200.00	800.00	84.58%