

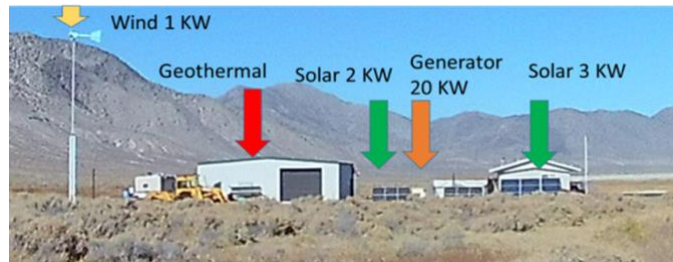
HE3DA/Power Orbital Battery Storage Prototype in Nevada is celebrating two years of successful operation in extreme desert conditions!



The Nevada desert - land of mustangs, speed records, unique finds, petroglyphs, hot springs and great discoveries. Deep in this wasteland is a HE3DA/POWER ORBITAL 20KWh battery storage system celebrating its second anniversary of operation since mid-October 2018. Along with the University of Nevada in Las Vegas, HE3DA has signed a strategic partnership agreement. In this way, HE3DA jointly with POWER ORBITAL is supporting a world-renowned study of organisms surviving boiling water. The study, initially supported by NASA, brought about the discovery of a third genome of these Extremophiles.

HE3DA/POWER ORBITAL has been given a unique opportunity to verify the function of its batteries in really extreme conditions, where temperatures vary up to 86 ° F degrees between day and night. Extreme winters in Gerlach plummet to -4 ° F, with summer temperatures peaking out around 104 ° F. There is a high concentration of alkali salts and super fine dust in the air. The ranch is supplied with energy from this off-grid system combining sources from 3 solar circuits, namely wind power plants, a natural gas unit, and geothermal energy. Charging currents may reach up to 250A with the discharge currents reaching a similar level.

HE3DA batteries have shown maximum robustness, supplying electricity to the off-grid Camp David Ranch for two years now. Once a year, a service takes place, in which all battery cells are adjusted to the same level. This service replaces complex battery and electronic control systems (BMS-battery management system) where it may be suitable. Ideal for medical or military missions in difficult conditions, it supplies continuous electricity and will easily survive electromagnetic pulses, which will completely shut down of all electronics.



In 2018, HE3DA batteries replaced lead cells with a total capacity of almost 40 KWh. Since then, it has been running continuously, without any electronic control systems in place. They reliably cover energy consumption at a time when solar panels and other sources do not produce electricity. The expected lifespan of the storage in these extreme conditions is 20 years. In contrast, lead cells have a minimal lifespan of only 2-3 years.