

Flexenclosure reveals eSite x10 hybrid power system

Flexenclosure, a global developer of intelligent power management systems for the ICT industry, yesterday unveiled its new hybrid power system for telecom sites - the eSite x10. According to the company, it will provide towercos and mobile operators a sustained advantage in terms of the highest possible uptime and the lowest possible site power costs.



eSite x10 is "the world's first hybrid power system purpose-built for outdoor telecom sites and to outdoor telecom standards." It is a patented, sealed tamper-proof unit with passive convection cooling, no filters, no moving parts and it requires no maintenance. Three years in development, eSite x10 has been purpose-built from the ground up to withstand the operational challenges that have been the downfall of nigh on all of the hybrid power implementations around the world to date.

"Until now, hybrid power systems for off-grid or bad-grid telecom sites have been built using indoor components and deployed in outdoor locations where they are exposed to the most challenging environmental extremes imaginable," said David King, CEO, Flexenclosure

"These systems weren't fit for purpose and they were highly unreliable. eSite x10 has been developed to overcome these operational issues and is, quite simply, the future of hybrid power."

Key innovations

Some of eSite x10's key innovations include:

- IP65 sealed and ruggedised to withstand harsh operating environments as well as potential tampering
- Tested and certified to strict CE and ETSI requirements
- Patented protective soft power switching between grid and gensets
- Single unit preconfigured to handle all site types simplifies deployment planning and compact form factor allows unit to be hand carried to site
- Preconfigured for up to three tenants with separate load measurement
- Integrated eSite Tools suite provides reliable network data for highest sustained performance
- Delivers 24/7 uptime and industry leading OPEX reduction

Maintenance free

Neglected maintenance is a common source of hybrid power system performance issues today so eSite x10 has been designed to be maintenance-free with no filters or moving parts. It has no single point of failure and uses patented protective soft power switching between the grid and connected gensets to replace mechanical switching and thus protect the unit from potentially damaging input power while maximising energy harvesting.

It also uses passive convection cooling, meaning no energy is wasted on active cooling systems such as air conditioning.

Simplified logistics

The size of the unit has been reduced by 75% when compared with existing hybrid power systems and it can be hand carried to site, which simplifies transport logistics and deployment.

eSite x10 is preconfigured to handle all site types and includes built-in support for 6kWp solar power. All required systems are in the unit, making installation plug-and-play process. Power sources, batteries, and tenants are easily added in the connection compartment as and when required. And system configuration is managed remotely, removing any possibility of mistakes being made by on-site installers.

Lower total cost of ownership

Flexenclosure says that the eSite x10 has been designed for the lowest possible total cost of ownership (TCO), with a design life "exceeding ten years in even the most challenging outdoor telecom site environments". It is not subject to unexpected OPEX exposure for callouts to the site because it requires no maintenance.

The system is also said to reduce diesel-related costs by up to 90% by combining software-defined hybrid battery control with solar power, intelligent grid power harvesting and optimal genset control.

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