

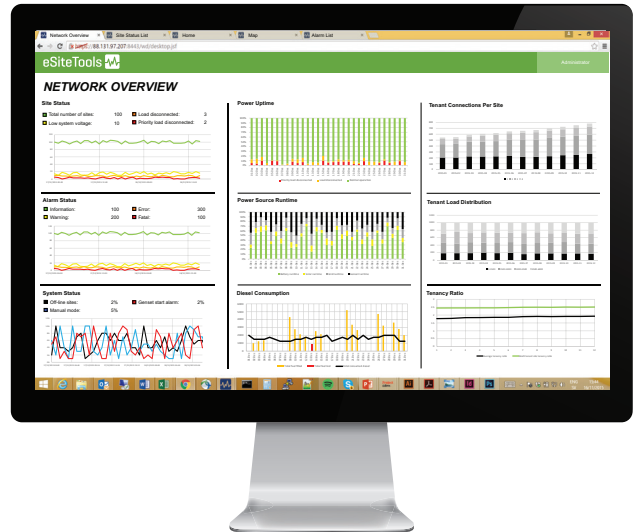
Reliable data and tools for highest sustained network performance

In order to maintain the highest sustained hybrid power system performance and the lowest operational costs over time, the ability to gather reliable network data is key.

Performance issues with many hybrid power systems often begin as a result of incorrect initial installation or commissioning on site. This is simply not possible with eSite™ x10, as eSite Tools™ provides all configuration data remotely with no decisions needing to be made on site.

With sensors built in to the unit and calibrated in the factory, eSite x10 ensures reliable data from the source and avoids the possibility of anyone tampering with the sensors.

For data communication, eSite x10 uses a proprietary protocol specifically designed to handle unstable data networks and also makes use of a substantial local data buffer to avoid any possibility of data loss. Uploaded data is stored in a safe and cost-efficient data cloud, where it can be accessed by eSite Tools for analysis and by web services (REST and SOAP) for smooth integration with other systems.



In addition to advanced site monitoring, network level tools are provided to manage site performance versus target KPIs for different site types; to enable planned battery replacements and to support potential battery claims; to understand the power grid's characteristics over time at each site; etc.

General	Installed and configured by Flexenclosure
	eSite Tools server and client software upgrades as part of RSSM
	eSite agent integrated with control and monitoring software in each eSite
	Windows or Linux based server software
	eSite Tools client software installed on Windows computers
eSite to eSite Tools Communication	Web based client – independent of operating system, enabling access with mobile devices
	TCP/IP based communication protocol with SSL encryption
	Connection through intranet or Internet via wireless network (GPRS/3G/4G depending on modem)
	Works with standard internet enabled SIM cards Public IP, VPN and private APN not required
	Automatic registration of eSites to eSite Tools server Data synchronisation and alarm reception without additional administration

User Accounts	Role based definitions with different GUI and access levels
	Unique user accounts linked to user roles
Data	Full eSite system data synchronisation
	eSite data buffering and automatic upload on reconnect in case of temporarily interrupted communication – enabling analysis of periods with offline states
	Customisable data synchronisation interval (default 10 minutes)
Alarms	Instantaneous alarm activation, independent of data synchronisation intervals
	Event buffering and automatic send on reconnect in case of interrupted communication
	Time stamps embedded in events, enabling alarm analysis of periods with offline states
	Alarm forwarding through e-mail and SMS via SMPP or HTTP gateway
eSite Configuration and Control	eSite software update
	Setting of eSite configuration parameters
	Full remote operational control
Dashboards	Site list displaying eSite status and connection state
	Alarm list displaying time stamped alarms with colour coding according to severity
	Customisable dashboards
	Search and filter functionality
	Dashboard data export to PDF, XML, CSV, Excel
Map	Network overview of alarm and connection status
	Various online map engines or offline map
Site Overview	Detailed system information – grid, gensets, battery banks, solar arrays, fuel monitoring and tenant monitoring
	Active and historical alarm display
	eSite configuration and remote management
	Pre-defined charts for key data, enabling quick eSite system analysis
	Raw data export, with configurable time period, to PDF, XML, CSV, Excel
	Detailed site reports
Reports	Pre-defined reports for network KPI overviews and daily site KPI details
	Customisable user-defined reports can be created for any data set
	Scheduling of automatic report generation and distribution
	Active data analysis tools
Asset Management	Site maintenance management
	Genset maintenance management
Integration	Easy to use API for data and alarm extraction from eSite Tools server
	Custom integration with devices through standard protocols
	Web service integration: REST, SOAP. Legacy system integration: SNMP