NorthStar **Telecom Energy Training**

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NorthStar Telecom Energy Training Packages

NorthStar offer an extensive range of service and training packages, covering everything from product selection to site maintenance.

Overall Training Objectives

- Extend battery life and save energy
- Optimize and reduce TCO
- Minimize ROI
- Secure ‘Up Time’

Our Goals

- Educate customers in general telecom energy applications
- Increase the solution and product awareness and know-how
- Train and learn site design, dimensioning, installation and maintenance
- Learn the basics of energy saving and TCO optimization

How to Extend Battery Life and Save Energy – 2 days

Training Objectives
This course demonstrates the basic concepts and techniques to get the most out of your energy solution in stable, unstable or off grid wireless applications.

Learn power and battery dimensioning, in combination with efficient battery thermal management, for new deployment and/or renewal or upgrade of existing sites. Build business case, reduce TCO and minimize ROI on energy saving investments.

Training Benefits
Power and battery selection and dimensioning

- Stable grid
- Unstable grid
- Off grid Hybrid solution

Cooling principles for batteries and electronics

- Optimize to save energy
- Need to be cooled basis
- Life time impact at elevated temperatures in various grid conditions

Hybrid solution – unstable grid and off grid

- Battery selection impact on TCO
- Optimize battery life time or fuel consumption

Extensive SiteStar™ Training – 3 days

Training Objectives

Gain a greater understanding of the SiteStar™ cabinet – concept and philosophy. Develop the skills and knowledge to install the cabinets and put them in operation, as well as perform acceptance tests and maintenance on the battery cooling system.

Training Benefits

- Increase product knowledge
- Reduce installation and field maintenance time
- Maximize product performance
- Prolong battery life cycle
- Reduce energy consumption

Training Requirements and Locations

The course is generally intended for engineers and technicians working with installation, operation and maintenance, as well as staff working with application engineering and configuration for telecom network systems.

This course can be held at our training center in Stockholm, Sweden, or at customer premises. For training on customer premises, there are specified demands concerning the facility, such as tools, presentation equipment, etc.

Extensive Power and Battery Dimensioning Training – 3 days

Training Objectives
Learn skills crucial for configuration of main function blocks in a ‘Total Energy Solution’. Attendees will be able to determine the necessary materials list that fulfills customer specifications and load specific requirements.

Training Benefits
After this training, attendees will have the skill to complete the following:

- Dimensioning of
  - Rectifier capacity for different customer and telecom load requests
  - DC-distribution circuit based on different telecom loads
  - Inverter system
  - Positive strengthening cables
  - AC-cabinets including main CB and CB for each rectifier
  - Battery circuit, including battery anatomy, size of battery circuit breaker unit and battery cable
- Selection of the earth bonding cable for power cabinets and system earth
- Make a single line electrical diagram showing connection between power cabinets, AC distribution, earth connection, batteries, inverters, AC filters, DC distributions with their positions in the rows etc

Training Requirements and Locations
The course is intended for Marketing, Planning and Engineering personnel, who need to the knowledge to configure, dimension and propose a ‘Total Power Solution’. This course can be held at our training center in Stockholm, Sweden, or at customer premises. For training on customer premises, there are specified demands concerning the facility, such as tools, presentation equipment, etc.

Site Performance Audit – 2 to 5 days

Audit Objectives
Our experienced engineers and technicians evaluate the integrity of your facility's power system, to maximize availability of the critical infrastructure.

We compares ratings to actual loading of DC power system, UPS, generators, transformers, ATS, and all breakers that protect the site. A single point of failure analysis is conducted, which will identify critical failure points in the system. A complete inventory is taken of all power and cooling equipment, and an updated one-line drawing is produced, which provides a new baseline for future planning.

This audit is a comprehensive way to determine potential problems and causes of future disturbances to your operations.

Audit Benefits
- Maximize availability of the critical infrastructure
- A single point of failure analysis
- A complete power and cooling inventory
- An updated one-line drawing
- Enhanced network security
- Experienced engineers and technicians
- Reduce Energy consumption