SCADA International
- It is all about SCADA Services
At SCADA International we know the opportunities and challenges of renewable energy and technology behind it inside out. Our solutions help you discover and release the full potential of your assets.

**DISCOVER the full potential**

It is all about SCADA

No matter what kind of renewable energy assets you operate, no matter the brand or technical set-up we offer solutions tailored to meet your business requirements and comply with local standards and legislation. Our work is all about SCADA. Our highly skilled SCADA specialists design, construct, install and commission SCADA hardware and software according to your specifications. Furthermore, we provide asset surveillance, support and maintenance to optimize your business during everyday operation. We deliver the complete SCADA value chain and enable our renewable customers to reduce levelized cost of energy (LCOE), manage multi-technology and improve overall performance through SCADA data. At SCADA International we know the challenges of the renewable sector - and your business is our business.
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• OneView® Service Solution
Installation and Commissioning
Quality assurance starts here

**Why it is relevant**
Managing all the different suppliers and interfaces when installing a new wind power plant are often a very time consuming task. Especially because of the many complex interfaces, dependencies and requirements. SCADA International offers management of the process from design review to final testing and as-built documentation.

**How we solve it**
We understand the requirements, limitations, and can manage the process to make the necessary adjustments while still meeting the design criteria. We can manage, test and validate the different supplier’s interfaces along the process to avoid surprises at the final tests.

**Features**
- Design review
- Coordination meetings
- Supplier scope review
- Supplier design review
- Scope coordination
- Interface coordination and tests
- Quality audits
- Sub system validations
- Acceptance tests
- Review of sub system as build documentation
- Creation of complete as built documentation package
- Project management

**Benefits**
- Reduce the continual need for your limited personnel resources
- Assurance that the system is designed and built correctly
- Adds another quality check to the installation process
- Single point of contact
- T&M or fixed price
- Highly experienced partner
- Agile and flexible solution
- Ability to utilize & leverage in-house global expertise
Fiber Optic Terminations and Network Setup

Where fiber splicing meets the excellence of a craftsmen

**Why it is relevant**
Whether you’re constructing a new site or repairing and old one, SCADA International is your one-stop shop for fiber splicing, design, network configuration, and testing. We have dedicated wind fiber technicians and we are a preferred turbine OEM vendor for all new construction.

**How we do it**
Fiber technicians will travel to location to provide fiber optic cable troubleshooting, repair, maintenance, replacement, new construction terminations, and splicing. Splicing can be done in Substation, O&M buildings, Wind Turbines, Solar Farms, and anywhere else needed. Fiber technicians use a fusion splicer and an OTDR for testing and reports. These services also include network configuration of your turbine communication setup. We will insure that your full turbine communication network is completed and working before we leave site.

**Features**
- Design and drawings
- As-built drawing updates
- Splicing of pigtails and pass-throughs
- Fiber routing – cable management
- Fiber patch panel installation
- Network configuration
- Communication troubleshooting
- Cleaning of fiber ends
- OTDR testing
- Provide test results
- Patch diagrams
- Cut sheets

**Benefits**
- One-stop shop for fiber splicing, terminations, site design, network setup, testing and communication troubleshooting
- Have confidence that your fiber installations meet your requirements with the OTDR testing
- Receive full as-built layouts and drawings
Site Inventory Service

We get you organized to optimize your site operations

**Why it is relevant**
Do you feel confident that you have documented all your critical assets? Do network investigations and troubleshooting issues take too long for your technicians? SCADA International’s site inventory service will provide a full overview of your site(s) current network and communication setup. The site inventory service can be used for compliance reviews, site improvements, reference for a future equipment upgrade plan, and be used as a guide for general troubleshooting.

**How we do it**
A SCADA technician will perform on-site visits to gather information, organize physical network equipment and create a comprehensive documentation package. This documentation will allow the company to track their equipment, provide documentation for audits, and more easily troubleshoot communication issues.

**Features**
- Network scan of all connected devices
- Communication block diagram
- Hardware inventory list
- Photo documentation of hardware
- Cable organization and routing
- Industry standard labeling of all network cabling
- Data flow mapping
- Relay and RTU point (RPA) lists development and/or verification
- SCADA system database backups
- Relay and RTU configuration backups
- Red line and as-built updates
- Software versions
- Licenses
- Serial numbers
- Speed and ping tests
- Recommended spare-part list

**Benefits**
- Identify unsupported software/hardware assets
- Discover disconnected hardware
- Update missing or incomplete documentation
- Correct and optimize configurations on switches
- Discover unidentified objects on the network (modems, routers, PCS, etc)
- Identify missing connections to devices or other networks
- Update labeling on cables
- Discover any back-door internet access
- Reference for a future equipment update plan
- Organize messy cabling
- Test physical access to critical assets
SCADA Data Quality Review
Take the steps to better data quality

Why it is relevant
Is data loss a reoccurring issue for your wind power plant? Do you have a solid failover or backup system? SCADA International’s Data Quality Initiative can help alleviate the burden of your data loss issues.

How we do it
A complete SCADA communication system diagnostic can be done to ensure that all the data wanted and needed is being received correctly. Important data can be lost in all the layers of a SCADA system and this service will help solve missing, corrupt, and incorrect data. Documentation can provide needed materials for troubleshooting of data loss in the future. SCADA International can also implement a backup or failover system to reduce data when equipment fails or power loss occurs.

Features
- Review telecommunications design, implementation, and maintenance practices
- Data failure alarming and notification methods
- Back-up and recovery protocols and procedures
- Interface protocols (MODBUS, OPC, DNP3, IEC 101 & 104, RS-232/422/485, etc)
- Switch, router and firewall configurations and optimizations
- Communications failover process
- Outage management (who are your points of contact)
- Stress test failover
- Intra-company notification processes when a data problem occurs

Benefits
- Identify troubled components or setups that are causing data loss issues
- Receive a full report on the current site setup with recommendations on improvements
- Corrective action items that SCADA International’s quality technicians can implement
- Updated back-up and failover processes with training for client’s users
Why it is relevant
Older substation systems are limited in communication functionality and unable to cope with new requirements and regulations. An existing infrastructure based on older protocols and media can be updated to newer systems and with the help of SCADA International’s trained technicians, you have a source that can supply it all.

How we solve it
SCADA International has years of experience in upgrading and maintaining substation equipment. This experience has involved multiple platform technologies such as RTUs, PLCs, RTACs and more. Interfacing to utilities, customers, substation equipment or subsystems through a large variety of protocols (DNP3, Modbus, IEC101-104, OPC, RCS, RS-232, RS-485, OPC XML) and many more. Our highly qualified technical staff consist of electricians, technicians, specialists, engineers etc. all ready to take on any assignment.

Features
• Protocol translation
• Communication processor and data concentrator upgrades
• HMI design and development
• RTU and Relay configuration
• PLC replacement
• Installations, upgrades and configurations

Benefits
• One source for substation communication
• Quality trained technicians, specialists and engineers
• Multi-platform experience
End of Warranty Inspections
Feel confident in taking your next steps post warranty

**Why it is relevant**
True value of an EoW inspection comes from the knowledge gained on the overall health of a SCADA system. Understanding the condition of your assets helps to improve maintenance cycle planning, warranty claims, assess the performance of your independent service provider (ISP), and for technicians to identify issues at an early stage.

**How we do it**
After an inspection, the owner will know exactly what state their system is in, either prior to the warranty expiring or other milestones like Site Acceptance Test. With our findings, your company will be able to take corrective action before the warranty expires or before accepting a new SCADA system.

**Features**
- Review OEM SCADA system
- Review SCADA/CMS server operating systems, event logs and storage
- Photo documentation of hardware
- Network communication review
- Turbine, Relay and RTU point (RPA) lists verification
- SCADA system database backup checks
- Relay and RTU configuration validation
- HMI screen checks

**Benefits**
- Identifies possible failure points from the existing SCADA setup
- Provides maintenance recommendations for major equipment
- Provide a final summary report that can be used to make intelligent post warranty decisions
Why it is relevant
Are you wondering what are the right questions to ask your suppliers or feel the need to bring in an expert for additional project support. SCADA International can help your project goals by utilizing our expertise in the Renewable Energy SCADA industry. We have the extensive knowledge and experience needed to plan, implement and execute any customer designed SCADA project. Not to mention our back-office of competent and highly skilled resources that will also be available when hiring in consultants from SCADA International.

How we do it
SCADA International provides consulting, system engineering, service and application software related to real-time Supervisory Control and Data Acquisition (SCADA) systems. Our team of SCADA experts ensures that the customers SCADA systems are utilized and applied in the most efficient and optimized way. SCADA international provides any level of systems engineering support from initial feasibility studies to complete turnkey project management and integration services, offering consulting expertise within the following areas:

- SCADA project management
- Network specialist
- SCADA trouble shooting specialist

Features
- SCADA functional design specification
- Vendor & product evaluation
- Project management & engineering
- Control system integration
- Custom software development
- Communication system analysis
- New technology consulting
- Planning and design
- Project management
- Configuration, installation & commissioning

Benefits
- Reduce the number of surprises or change orders
- Assurance that the project is designed and built correctly
- Adds another quality check to the development process
Service Level Agreement

**Competent and fast response**

For years SCADA International has assisted customers in protecting their investment by providing valuable and advantageous Service Agreements.

We take pride in offering premium Service Level Agreements based on proactivity – combining scheduled remote maintenance, SW/HW health checks and delivering automatic alarms and status reports.

SCADA International enables customers, in due time, to react to minor issues that could potentially lead to dangerous damages or even breakdowns.

Our competent team of experts are naturally available for solving any challenges during normal working hours. However, customers with a Service Level Agreement will have an additional access to our world-wide hotline support 24/7/365.

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### Service Level Agreement Overview

<table>
<thead>
<tr>
<th>Service Level Agreement Overview</th>
<th>Extended</th>
<th>Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic hotline user support on the use of the system for trained personnel*</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Hotline access</td>
<td>24/7/365</td>
<td>24/7/365</td>
</tr>
<tr>
<td>Alarm &amp; Events reporting</td>
<td>24/7/365</td>
<td>24/7/365</td>
</tr>
<tr>
<td>Manned System Monitoring</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Packages of support and maintenance hours at reduced rates</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Prioritized response time for service request</td>
<td>Within 1 working day</td>
<td>Within “24” hours upon accepted offer</td>
</tr>
<tr>
<td>Prioritized on-site work</td>
<td>Within 7 days upon accepted offer</td>
<td>Within “24” hours upon accepted offer</td>
</tr>
<tr>
<td>Prioritized E-mail and Hotline number</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Monthly status report with recommendations for proactive measures</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Recommended spare parts always on stock**</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* Included in annual OneView® SCADA license fee – no hourly charges.

** Based on the monthly status reports and customer specific agreement, recommended spare parts will always be on stock to secure a high service level at any time.
**Benefits**
- Manned System Monitoring – normal working hours
- Alarm & Events reporting – 24/7/365
- Hotline Access – 24/7/365
- Prioritized response time for service request – within 1 working day
- Prioritized on-site work – within 1 working week
- Packages of support & maintenance hours at reduced rates

**Prioritized response time for service request**
Whenever a request is raised for service, the work will be initiated within one (1) working day.

**Prioritized on-site work**
With our Extended Priority Service Level Agreement we will be on site within one working week (7 days) to begin troubleshooting and repair.

**Manned System Monitoring**
To monitor and proactively take necessary steps in order to avoid downtime of your SCADA solution extensive system knowledge is required. Our service team monitors your system during normal working hours.

**Alarm & Events reporting**
24/7/365 all relevant alarm and events concerning the OneView® SCADA system itself and servers and network, will be reported automatically to an appointed recipient(s) by e-mail or SMS.

**Hotline Access**
In case of an emergency you can rely on calling our Hotline service 24/7/365 and request for assistance.

The Hotline support is your uninterrupted emergency connection to SCADA International’s qualified team of technicians and specialists. We deliver OneView® SCADA user support, guidance to technical problems with the system and communication issues with assets, product configuration guidance, system status inquiries, spare-part ordering, warranty claims and planning of trouble shooting and repair tasks.

Before initiating a support and maintenance task you will get a qualified estimate of the total hours and cost. Should the cost exceed our estimate you will be advised before we continue the work. It is possible to buy packages of support and maintenance hours at reduced rate.
Premium
Priority Service Level Agreement

With the Premium Priority Service Level Agreement you have all the advantages of the Extended Priority Service Level Agreement and more. With a Premium Priority Service Level Agreement a number of additional advantages are added in order to secure the value of your investment: Prioritized hotline, presence on site within 24 hours, monthly status reports with proactive recommendations and much more.

Benefits
• Manned System Monitoring – normal working hours
• Alarm & Events reporting – 24/7/365
• Hotline Access – 24/7/365
• Prioritized response time for service request – within 1 hour
• Prioritized on-site work – within “24” hours
• Prioritized e-mail & Hotline number
• Monthly status report with recommendations for proactive measures
• Packages of support & maintenance hours at reduced rates
• Recommended spare parts always on stock

Prioritized response time for service request
Your request for service will begin within one work hour after you have accepted the service offer.

Prioritized on-site work
As a Premium customer you can expect us to be on site within 24 hours after having accepted an offer for on site assistance. The response time usually depends on travel time and availability of transportation ticket.

Prioritized E-mail & Hotline number
To secure easy and prompt access we deliver a prioritized e-mail and hotline number for customers with a Premium Priority Service Level Agreement.

Monthly status reports and recommendations
By the end of every month a report will be made containing HW and SW status, data availability, system and application logs, internet connection status and performance as well as recommended SW and HW updates.

Recommended spare parts
Based on the monthly status report and a customer specific agreement any recommended spare parts will always be on stock to secure a high service level at any time.
SCADA International offers a unique service solution for customers who recognize the value of a single point of contact, prioritized support around the clock and maximum up-time on all SCADA-related systems, assets and network.

Choose between three levels of service – All Asset Surveillance, Full-Scope Action and Life-Cycle Management. Whatever your choice, the contract is tailored to your specific needs and assets. Which assets to include and the service levels required are decided in close cooperation between you and SCADA International to ensure a seamless and cost-efficient solution.
Single point of contact

With OneView® Service Solution, SCADA International offers you one point of contact for all surveillance of SCADA-related systems, assets and network regardless of brand.

Prioritized support

OneView® Service Solution provides you with prioritized support 24/7/365. All services are performed by experienced SCADA specialists – remote or on-site.

Maximum uptime

OneView® Service Solution is a full service package customized to your demands and assets – and delivered to secure maximum uptime of your wind assets.

Life-Cycle Management

If you add Life-Cycle Management to your service agreement with SCADA International, we make it our business to run your assets – all or selected – at all times. With Life-Cycle Management we take the full responsibility to proactively monitor, maintain, repair, update or replace systems and components whenever needed. We offer Life-Cycle Management as an OPEX agreement, i.e. a fixed service fee to optimize your cash-flow.

Full-Scope Action

With Full-Scope Action you get not only All Asset Surveillance around the clock, but also full support and immediate action on your vital assets. In close cooperation with your organization we draw up an actionable plan for each critical asset and the level of service if specific events occur. Our task force of SCADA specialists is always ready to take action – remote or on-site to secure maximum performance at all times.

All Asset Surveillance

With All Asset Surveillance you get 24/7/365 surveillance, single point of contact and prioritized support meaning reliable data availability and seamless connectivity at all times to secure maximum uptime on your wind assets. With All Asset Surveillance, SCADA International takes over surveillance of your SCADA-related assets including substation PLC, WTG distributed PLC, servers, relays, grid meters, ISP connections etc. regardless of brand. The service includes high-prioritized support performed by SCADA specialists around the clock. The service also includes monitoring, alarm and events reporting, hotline access and prioritized response time for service requests and on-site work.
We share your passion for green energy

Since its foundation in 2006, SCADA International has grown to be a leading solution provider within the global renewable energy industry. With an extensive track record and deep roots in the Danish wind heritage our services span the entire value chain including SCADA Hardware Solutions, Software Solutions, Installation & Commissioning, Consulting and Value Adding Services.

Headquartered in Denmark, SCADA International employs close to 100 wind and SCADA specialists at offices in Germany, Poland, Ukraine, United Kingdom and USA. The company is certified according to ISO 9001, ISO 14001 and OHSAS 18001.

Why our customers choose SCADA International

An increasing number of companies in the renewable sector in Europe and North America choose SCADA International as their partner when it comes to SCADA systems and SCADA installation, surveillance, support and maintenance.

When choosing SCADA International you get solutions that are:

- Made for renewables
- Customized
- Scalable
- Open
- Reliable
- And support your business model

Company references

- Afaplan
- Aidesa Nova Energia
- Centrica Renewables Energy
- DONG Energy
- E.ON
- EDF Energies Nouvelles
- Enel
- Energia Renewables
- Eneria
- ESB International
- Eurowind Energy
- GE Wind Energy
- Nexus Energie
- Nordex
- Ostwind
- PGE Energia Natury
- RegEnPro
- ScottishPower
- SEMCO Maritime
- Senvion
- Siemens
- STEAG New Energies
- Suzlon Energy
- TransAlta Corporation
- Vestas
- VATTENFALL
- WKN AG

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