

## Meeting today's energy demands

## Unique selling propositions

With each day that passes, the demand for increased performance and reliability of our electrical systems grows in every market, sector and company worldwide. With ageing equipment, increased operating levels, strict safety requirements and a shortage of technical personnel with the necessary skills, these demands are at an all time high.

Understanding the needs of the industry and listening to our customers is the key to our success. Our comprehensive, first class portfolio offers you innovative smart service solutions to help you achieve a more reliable, economic and efficient network solution. Having been established in the UK for over 100 years, our team of dedicated and highly experienced professionals are able to work closely with you to develop service packages that are tailored to your Needs.

#### We make the most of your assets and provide solutions for success

From operation and maintenance, to repair and retrofit up to the final disposal – we make the most of your assets or entire energy infrastructure. Our proactive service approach includes furthermore a wide array of condition monitoring solutions as well as asset management and consulting services.

The Customer Services business in the UK and Ireland (UK&I) provides everything from low, medium and high voltage equipment and services, as well as substation monitoring and control systems. We also add value through design, engineering, project management, installation, testing and commissioning. We provide full lifetime service solutions which enhance the reliability and efficiency of electrical networks and service many leading manufacturers' equipment at substations throughout UK&I including internationally where legacy brands exist.

We service all grid and network assets associated transmission and distribution:

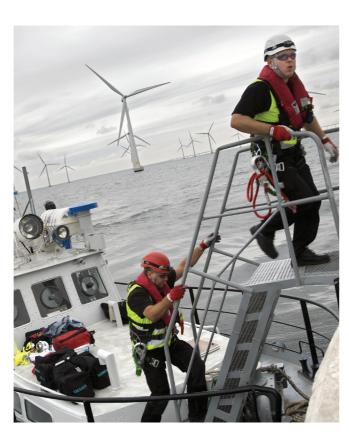
- HVDC Interconnectors and Flexible AC Transmission Solutions (FACTS)
- Power Transmission Lines and Cables
- Grid Access (Off-Shore and On-Shore Windfarms)
- Switchgear (high-& medium-voltage, AIS & GIS)
- Transformers (Large and Medium Power including Distribution)

#### Siemens original equipment manufacturer (OEM)

For over 160 years, Siemens has provided products and service solutions for Siemens, Reyrolle Switchgear, Peebles Transformers, VA TECH, Magrini Galileo, Merlin Gerin, Elin, Holec and Allis Chalmers products.

This unrivalled international portfolio allows Siemens to offer complete OEM capabilities that are fully supported by the latest manufacturing and research and development activities.

The combination of outstanding design and build quality means that a relatively high proportion of these units are still in service today. Siemens is fully committed to supporting the installed base at every stage of the product life cycle however large or small the need. As the OEM we offer the most comprehensive and reliable service available for products throughout the entire life cycle and we provide our customers with the best opportunity to achieve the optimum cost effective long term strategy for their existing equipment.



#### Why Siemens?

- More than 160 years of OEM experience with local service organisation worldwide
- Service for the entire energy conversion chain, over the complete asset lifecycle (installation to disposal)
- Long lasting, trustworthy, financially strong partner

**Transformers** 

#### Siemens commitment to customers

- Services for all generations of switchgear and transformers and for all Siemens brands
- · Solutions tailored to your needs, including customer project financing
- Available, wherever your substation is located, worldwide – including 24/7 emergency services on-call duty of service contracts

#### Reasons to believe

- Reuse of vintage gas-insulated switchgear
- Long term operating and maintenance contracts
- Performance guarantees for operation and maintenance contracts

Railway

Chemicals

Solar



Oil and gas

Construction /

building

Harbours



## Digital Services – from Condition Monitoring to Asset Performance Management

## Transparency of your assets is the prerequisite for optimisation



Support precise maintenance planning with on-site asset evaluation and testing; detailed condition reports and early warnings



## Monitoring and diagnostics

Quickly identify and address fast-moving faults with critical asset monitoring, real-time, dynamic analysis of asset conditions



#### **Remote services**

Peace of mind and no on-site field personnel needed with Remote Diagnostics Centre that performs 24/7 monitoring and diagnostics for online assets; remote analysis by experts, with recommendations; reliable, secure data connection



Asset decision support with vendor-independent consulting and audit services; recommendations to optimise asset management, based on OEM expertise

## The high availability of your assets is our mission



#### **Preventive** maintenance

Keep assets reliably available; leverage OEM expertise with time and conditionbased maintenance, following OEM recommendations, by local qualified experts



### Repair services

functional operation; leveraging OEM expertise with initial on-site investigation; developed repair solutions; repairs include parts and materials by expert field service personnel; OEM workshops address failure analysis and repair

Fastest possible return to



24/7 expert support, available immediately on demand with on-call duty contract 24/7 second-and-third level senior technical support, as well as on-site investigation, within contractual time-frame; utilise Siemens internal engineering department

### Spare parts

Fast delivery of high quality OEM spares with provision of high-quality maintenance kits and spare parts fast delivery of critical spare parts; spare part management



24/7 support for all questions and issues with first-level call centre support and third-level technical expert support

## High performing assets are the key success factor



#### **™** Modernisation & retrofit

Keep assets updated; extend useful asset life; avoid costly installation of new equipment with modernisation of hardware and software; retrofits of individual components



#### Refurbishment

Extend asset lifetime and reduce costs for new assets with asset overhauls



Adjust assets to changing demand; improve asset efficiency and performance with system wide feature upgrades; uprated performance



### Extension

Adjust substations to increased demand and needs, while minimising organisational impact with extension of existing systems (such as substations) with existing or new equipment

## Offerings

#### **Asset Performance Management**

- RCAM Dynamic Software Application for decision support and dynamic Reliablility Centred Asset Management
- Condition and risk assessment and prognosis
- · Maintenance and replacement strategies and planning

#### **Integrated Substation Condition Monitoring (ISCM)**

- · Visualisation, alarms, reporting
- · Remote Monitring and diagnostics

## Maintaining our values throughout:

#### Responsible

Committed to ethical and responsible actions

#### Excellent

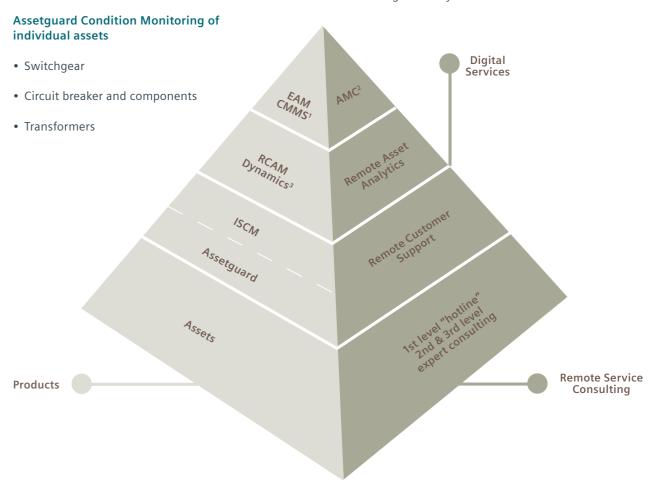
Achieving high performance and excellent results

#### **Innovative**

Being innovative to create sustainable value

#### Zero Harm

Creating a healthy and safe work environment



## The asset management solution



## **Asset Management Consulting**

**AMC** 

### **Asset Management Consulting**

- Asset Management Strategy
- Asset Risk Management
- Asset Fleet Condition Analysis

# Siemens Digital Asset Management Solution

APM & EAM @ IPS-Systems™ incl. Siemens RCAM Dynamic Models

"RCAM Dynamic" @ MindSphere(Reliability Centered Asset Mgmt.)

Enterprise Asset Management

Asset Performance Management

Asset Management Applications

EAM = Asset Mgmt. Execution: "Who, how and what?"

- Asset Registry and document repository
- Work order generation, execution and documentation
  - Workforce and Resource Management

APM = Asset Mgmt. Intelligence: "If, why and when?"

- Asset condition and risk and analytics
- Maintenance (OpEx) and investment (CapEx) strategy
- Failure modes and root cause analysis

**ISCM™** Enterprise **Remote Diagnostic** and Analytics Services **Integrated Substation Condition Monitoring Siemens Condition Enterprise Level Monitoring Systems Substation Level** & Solutions **Monitoring** Gateway(s) **HV Switchgear HV Switchgear MV Switchgear Transformer** 3rd party online Offline Asset Audits and **SITRAM TDMC Assetguard GDM Assetguard PDM Assetguard MVC** monitoring **Condition Assessments** 

Published by and copyright  $\ensuremath{\texttt{@}}$  2018:

Siemens plc North Farm Road Hebburn Tyne & Wear NE31 1LX United Kingdom

Phone: +44 (0)191 401 5555

Email: csukenquiries.energy@siemens.com Web: www.siemens.co.uk/assetmanagement

All rights reserved. Trademarks mentioned in this document are the property of Siemens AG, its affiliates, or their respective owners. Subject to change without prior notice. The information in this document contains general descriptions of the technical options available, which may not apply in all cases. The required technical options should therefore be specified in the contract.