Alstom Grid Service
What can Alstom Grid Service offer you?
A complete range of solutions
We turn your asset management challenges into eco-efficient solutions

In today’s business world, investing in quality, innovative equipment that optimises your electrical structure and heightens your return-on-investment is your first priority.

Once the equipment is purchased, you need to ensure that it continues to function perfectly throughout its lifetime.

Who better to trust than the company you purchased the equipment from in the first place?

Alstom Grid Service offers a full range of maintenance solutions tailored to your needs and managed by a trained transmission Service Team.

Our technical specialists take care of your assets – transformers; protection; information and control equipment; high voltage switchgear; instrument transformers; power electronics equipment; and complete substations or networks – and make sure that all quality and safety regulations are met and respected. Our service solutions include:

- Maintenance, repair, emergency support
- Erection, commissioning and supervision
- Retrofit and upgrade
- Long-term operation and maintenance contracts
- Spare parts and spare parts management
- Renovation, modernisation and extension
- Network consulting
- Training at Alstom Grid Technical Institutes

Fresh, new ideas based on field-proven expertise

At Alstom Grid Service, our mission is to ensure that your energy network is reliable, efficient and environmentally-friendly. We leverage the technical know-how from all our equipment design and manufacturing engineers into customised service solutions.

The Alstom Grid local Service units around the world are managed by strict quality management systems - including our own methodology - and fulfill the requirements of ISO 9001, environmental standard ISO 14001, and OHSAS 18001.
Network Consulting
Anticipating tomorrow’s challenges for sustainable network reliability

Whether for new installations or for improving the efficiency and performance of existing ones, Alstom Grid offers a range of network consulting options created to make the most of your assets.

- System planning and analysis
- Voltage estimates
- Transient stability analysis
- Dynamic interaction assessments and reliability studies

Reliability analysis tools offer electrical system managers an effective way to monitor performance and ensure supply quality for complex power systems. Beyond the standard power flow or short circuit calculations, these studies provide the information required to improve network reliability in a cost-effective, sustainable manner.

Our range of tested, tailor-made solutions for upgrading, expanding or even reducing your network, confirms that your system will operate reliably and safely.

As a leading industry systems integrator, we have the global experience and expertise to analyse, specify and design network systems to meet your exact requirements.

Alstom Grid Technical Institute
"Training with the pros"

A better understanding of the electrical energy environment and the technology involved allows everyone to make the right decisions at the right time. Alstom Grid Service created a solution based on customer needs to improve their staff’s skills and competencies: managed training as a long-term project.

Training is an essential activity in every business and the need for training in the power industry is even more important due to rapid network development, new technologies and aging equipment. With a comprehensive training program, teams can actively contribute to improve their company’s performance.

Alstom Grid Technical Institute offers training programs to benefit a wide range of audiences: operators, maintenance staff, engineers, supervisors and management. We work closely with customers to assess, plan, outline and customise training courses to best suit your needs. The Technical Institute covers the scope of transmission and distribution activities such as energy management, substation protection, digital control systems, electrical safety, high voltage switchgear, medium voltage products and network, power and distribution transformers.

We are an Institution of Engineering Technology Endorsed Training Provider, recognised and recommended by the IET for the quality of our training provision.
High voltage equipment

Transmission equipment

We offer complete service and maintenance solutions for all current and Alstom Grid-legacy products from air-insulated and gas-insulated switchgear, to instrument transformers and non-conventional instrument transformers, power electronics equipment and power transformers from 66 kV to 1200 kV.

In addition to erection and commissioning services, spare parts and repairs, we offer assessments, condition-monitoring retrofits, control system upgrades, surge arrester fingerprint-testing and hydraulic system upgrades.

- Circuit breaker or generator circuit breaker control system upgrades
- Hydraulic system overhauls
- Condition monitoring retrofits
- SF6 leak analysis, repairs and gas reclamation
- Oil verification and analysis
- General maintenance services

Circuit breakers

Based on manufacturing expertise and time-proven refurbishment experience, Alstom Grid Service offers the most cost-effective and efficient solutions to increase the life span of your circuit breakers and generator circuit breakers.

From on-site assessment, periodic inspections, mid-life overhauls though complete life-extension, we customise the most appropriate program for your circuit breaker type, age and ratings.

Disconnectors

Disconnectors provide visible and reliable air isolation to ensure the safety of people working on high voltage networks, and are an essential element of electrical power transmission systems.

Alstom Grid disconnectors are designed to offer a working life of over 40 years of trouble-free service with zero or minimum maintenance, and to perform even under the most adverse operating conditions.

Problems can occur due to mechanical damage during transportation and on-site erection carried out by inexperienced personnel, so careful measures are important in reducing the failure rate. Alstom Grid specialists are available to ensure rapid disconnector installation and erection supervision if requested by the customer.

The substitution, upgrading or overhaul of disconnectors is also possible and our teams work closely with customers to save costs by using new or refurbished components on existing equipment whenever possible.

An efficient, pro-active monitoring system combined with Alstom Grid’s expert service team is the best way to prolong equipment life. Our condition monitoring service solutions can drastically reduce the risk of failure.

Our global Service teams bring you innovative technological solutions to keep your high voltage circuit breaker equipment up-to-date, safe, reliable and efficient. Asset management optimises your infrastructure performance while keeping your operating costs under control.
HVDC and FACTS

To support customers, Alstom Grid offers a targeted service support dedicated to HVDC and FACTS installations. Through this offer, Alstom Grid commits to continuously supporting customers’ individual needs throughout the HVDC system’s lifecycle. This offer can be provided when equipment is installed, during the warranty period and beyond.

It notably includes: remote operation support, regular inspections and maintenance, prompt response times in case of failure, on-demand expert advice, spare parts supply, training programmes and more. This offer is available in three incremental packages: SILVER, GOLD and PLATINUM, to help customers choose the solution which best fits their needs.

Remote operation support
Advanced connectivity and information received from Alstom Grid’s installed monitoring tools provides a full assessment of customers’ equipment in real-time. Alstom Grid experts are then able to evaluate the current state of equipment, define the scope of maintenance operations and plan future required actions. This enables a better match of intervention teams, spare parts replacement and special tools management, saving down-time and costs, avoiding unexpected situations and maximising the electrical system’s availability.

Customer Benefits
- Complete range of services to ensure equipment continuity and full availability
- Customised offers adapted to customers’ specific needs
- Regular contact through scheduled maintenance and equipment inspections
- Proximity with local service personnel and remote operations support
- Reduced maintenance costs
- Prompt response times with 24/7 emergency support
- Increased reliability
- Life extension of individual components
- Alstom Grid’s vast and trusted experience and know-how based on worldwide installations and support
- Reliable asset management: everything is set out in clear maintenance contracts

GIS modernisation

Alstom Grid has a solution for aging GIS switchgear: an individualised industrial modernisation alternative for switchgear with 20 years or more of active service. Our solution extends GIS life time by adapting new circuit breakers and accessories, and effectively uprating when requested. Our GIS life-extension program is your best means to avoiding unnecessary replacement.

Avoiding complete shutdown and major civil work modifications, our GIS modernisation concept helps customers choose the best solution for each specific situation. Based on the age and equipment state, Alstom Grid engineers design a ‘retrofit’ operation that can extend your total equipment lifetime up to +45 years.
Transformers

Power transformers
When working with large power transformers, attention to small details is very important. Alstom Grid Service teams provide specialised technical services covering the complete life cycle of your transformer.

Our dedicated and skilled transformer erection fitters and site and commissioning engineers undertake complete transformer installation and erection, commissioning, testing and energising. We undertake extensive on-site investigations and repairs when required and modernise more mature transformers replacing key components with modern equivalents.

Asset maintenance surveys make a significant contribution towards increasing productivity. Failures can be prevented by non-intrusive visual inspections to determine equipment condition.

On-site mobile workshops or factory refurbishment facilities around the world offer enhanced transformer and tap changer services designed to meet our customers’ needs:

Spare parts
- Global supply chain for cost effective supply of quality parts
- Product re-engineering

Retrofit
- Equipment upgrades and renovation
- Changing oil from mineral to vegetal

On-site intervention
- Erection & Commissioning
- On-site maintenance and repair
- On-site upgrade/refurbishment
- Technical audits
- Emergency support

Diagnosis
- Inspection and testing

Training
- Seminars and general training

On-board transformers
With 80 years of experience and more than 4,700 transformers produced, Alstom Grid on-board activity provides a wide range of specialised traction transformer support services for railway operators and rolling stock manufacturers. Our international references in all rolling stock segments (very high-speed, locomotive and electrical multiple units) allow us to fit with our customers’ constraints, giving them more time to focus on their core business and keeping transformer performance at their best throughout equipment life cycle.

Instrument transformers
An instrument transformer by nature requires little maintenance. Considering their importance within the network and the regular over voltages and short-circuit currents that they must face as part of normal operating conditions, it is generally recommended that they receive regular preventive maintenance. An annual service visit makes sure that the instrument transformers have not been damaged, thus ensuring their designed long life cycle (generally 30 years).

Alstom Grid offers a broad instrument transformer service range, including preventive and corrective maintenance and ‘à la carte’ maintenance to suit your specific needs or equipment installation and replacement.

Diagnostics and repairs
Our Service professionals verify oil levels, signs of oil leaks, insulators and look for hot spots on equipment under power via thermographic infrared. For off-line equipment, our team cleans insulators, examines metal parts for signs of corrosion or chipping paint (if applicable), tests oil quality and intervenes on any detected oil leaks.

With decades of experience, Alstom Grid’s Service team can handle your maintenance and spare parts needs for all current Alstom Grid or Alstom Grid-legacy products and equipment, as well as for third-party equipment.
Long-term maintenance contracts

Whether for a specific critical product range within your energy system or the entire network, Alstom Grid can provide you with lifetime support for Alstom Grid, Alstom -legacy or third-party products and equipment, including full plant lifetime maintenance management.

Our personalised customer service solutions maximise product life cycle, from annual inspections through to minor or major maintenance work.

Our Service Team offers a total solution providing support packages for your project or your network for its entire life, or a combination of services to complement your resources and competencies

- Responsibility for controlling and operating electrical networks on any original manufacturer’s equipment
- Three levels of maintenance agreements to suit your needs
- Adherence to Alstom quality and safety rules
- Network re-configuration, upgrading and fault repairs
- 24/7 service with guaranteed response time
- Emergency customer support hotline for assistance on all equipment fault rectification-related problems.

Condition monitoring

Transmission equipment constitutes important capital investments and are individually critical to your electrical power systems’ successful operation. Energised equipment produces large quantities of information in just one day that is fundamental to avoiding outages or failure. Alstom Grid Service offers condition monitoring that keeps a constant watch over your assets.

Armed with the proper information received from our installed monitoring tools (MS3000 for power transformers, BWatch for GIS equipment, DSWatch for disconnectors, CBWatch-2 for HV circuit breakers), we can provide full assessment to evaluate the present situation, define scope and plan the future execution (logistics, accessories, special tools); saving downtime and costs, avoiding unexpected situations and maximising your electrical system’s availability. Always focusing on quality, the environment and our customers’ satisfaction, Alstom Grid Service plans offer:

- Real time analysis and diagnosis
- Increased equipment reliability
- More accurate preventive maintenance plan
- Reduced unplanned outages
- Reduced failure probability
- Reduced insurance costs
- Improved power quality
- Increased operational safety (for personnel and equipment)
- Asset optimisation