

GE Energy

Solutions

for the petrochemical industry



imagination at work

Innovations to Solve the Industry's Toughest Challenges

Integrated Solutions for Strength and Stability

As one of the largest energy companies in the world, we're in the business of powering potential.

From power generation to water treatment to automation solutions, our mission is to support our customers' manufacturing and processing operations. We do this by aggregating innovative ideas and technologies from across GE's businesses to fulfill a variety of needs:

- Optimize performance and output
- Reduce and control costs
- Maximize uptime and productivity

The way we support our customers has the biggest impact on their challenges. The Chemicals team partners with customers, collaborating to develop ideas and solutions that drive the optimal health, stability, durability—and sustainability—of our customers' manufacturing and operations.

Leveraging GE's scale, expertise and renowned process methodology enables us to provide customized, comprehensive solutions in response to customers' specific energy needs.

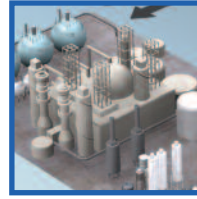
Incorporating GE's ecomagination products into our comprehensive solutions helps customers to meet their environmental and operating objectives while continuing to satisfy their specific energy needs and growing marketplace demand.

Together, we have the potential to solve the industry's toughest challenges.

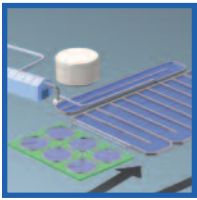
Applications



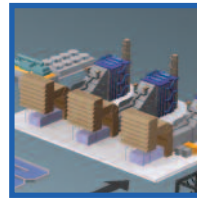
Administrative



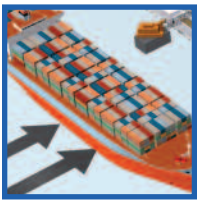
Petrochemical Process



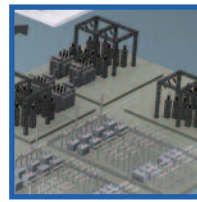
Water Supply and Treatment



Cogeneration

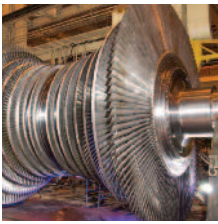


Transportation



Power Delivery





Optimize Performance and Output

With its comprehensive understanding of the chemicals industry, the Chemicals team strives to optimize fleet performance, productivity and output.

ADMINISTRATIVE

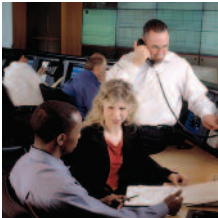
- Lighting

ENERGY

- Boiler Steam Treatment

PETROCHEMICAL PROCESS

- Emissions Testing
- Optimization
- Process Water Treatment
- Remote Monitoring & Diagnostics
- Sensors



Reduce and Control Costs

GE fulfills the Chemicals business demand for a broad range of reliable sources of clean and dependable power for its customers

ADMINISTRATIVE

- Consortium Development
- Employee Safety
- Equipment Funding
- Expansions
- Leasing
- Lighting

ENERGY

- Air Emissions
- Cogeneration
- Combustion Optimization
- Emissions Testing

- Gasification
- Process Fuel
- Training – Technical and Product
- Utility Island

PETROCHEMICAL PROCESS

- Compressors
- Drives and Controls
- Emissions Testing
- Exchangers
- Expanders
- Fin Fans
- Motors

- Outage Planning
- Process Water Treatment
- Reactors

TRANSPORTATION

- Fleet Leasing/Management
- Product Integrity
- Product Tracking
- Rail/Shipping

WATER SUPPLY AND TREATMENT

- Training – Technical and Product



Maximize Uptime and Productivity

To maximize uptime and productivity, GE provides a wide range of products and services through its Chemicals business.

ADMINISTRATIVE

- Employee Safety
- Plant Security

ENERGY

- Air Emissions
- Cooling Water Treatment

PETROCHEMICAL PROCESS

- Automation
- Compressors
- Drives and Controls
- Emissions Testing
- Exchangers
- Expanders
- Fin Fans
- Motors

- Process Management Software
- Process Water Treatment
- Reactors
- Reliability Centered Maintenance
- Remote Monitoring & Diagnostics
- Training – Technical and Product

POWER DELIVERY

- Distribution
- Inspection
- Motor Control Centers
- Outage Planning
- Reliability Centered Maintenance
- Remote Monitoring & Diagnostics
- Substations
- Transformers
- Transmission

WATER SUPPLY AND TREATMENT

- Boiler Steam Treatment
- Desalination
- Engineering and Design
- Feed Water Treatment
- Waste Water Treatment
- Water Reuse



Administrative

GE offers a broad range of financing options and services for your chemical operations.

Consortium Development

GE Energy Financial Services' (EFS) experts invest globally with a long-term view—backed by the best of GE's technical know-how and financial strength—across the capital spectrum in one of the world's most capital-intensive industries, energy, to help their customers and GE grow.

Employee Safety

GE Security offers powerful solutions that protect people and property with some of the most innovative technology ever developed. From sophisticated life safety and security systems to cost-effective intelligent threat detection, all our products undergo rigorous scrutiny throughout their development to make sure they bring long-term value to every application.

Equipment Funding

GE Energy Financial Services provides project, working capital, acquisition and capex financing to energy-related companies around the world.

Expanders

Turboexpanders offer the highest power level, operating temperature and pressure ratio solutions for energy recovery and refrigeration.

Leasing

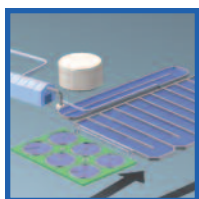
GE Energy Financial Services provides lease financing for a wide variety of capital equipment utilized in the energy industry.

Lighting

The first name in illumination is still lighting the way. From halogens to hybrids, GE Lighting has the experience and options for your lighting needs.

Plant Security

GE systems integrate cameras, DVRs, software and more to provide comprehensive security that is easy to use and manage. Whether you're securing a single store or multiple locations around the globe, we're committed to helping you secure your organization and finding new, cost-effective ways to scale and upgrade equipment as your needs change.



Water Supply and Treatment

GE offers a broad range of green innovations for chemical processing and management.

Boiler Steam Treatment

GE offers a wide array of technological options to meet the most challenging energy requirements. Using an integrated approach that includes parts, service, repair and project management, we deliver results that contribute to our customers' success.

Desalination

Desalination systems from GE Power & Water can make abundant fresh water both from seawater and from challenging brackish sources.

Engineering and Design

GE's experience in the research and development of water treatment processes and hands-on operation of plants is unparalleled. We guarantee operations with one of the most extensive fleets of mobile water treatment equipment for virtually any water application.

Feed Water Treatment

GE Mobile Water understands that plant downtime or not being able to meet production demands is not an option.

Training – Technical and Product

As competition intensifies, technical competence becomes increasingly important in operating and maintaining system reliability, achieving exemplary customer service and pricing transactions and ancillary services accurately. Field-seasoned instructors who combine their understanding of theory with practical experience teach GE's Oil & Gas technical courses.

Waste Water Treatment

GE's technology uses specialty chemicals to remove pollutants, minimize sludge handling and disposal costs, improving effluent quality, and promote water savings and recycling. We help you deal with a full range of treatment challenges.

Water Reuse

GE's Water & Process Technologies business is on the forefront with a wide range of recycling solutions. Our advanced technologies help municipalities and businesses reclaim nearly 21 billion U.S. gallons of waste water each year, reducing stress on drinking water sources.



Transportation

GE has an unmatched combination of financial, technological and operating expertise that it uses to provide transport solutions for the safe, secure and efficient movement of goods through the global economy.

Fleet Leasing/Management

GE Energy Financial Services' (EFS) experts invest globally with a long-term view, backed by the best of GE's technical know-how and financial strength, across the capital spectrum in one of the world's most capital-intensive industries, energy, to help their customers and GE grow.

Product Integrity

VeriWise Asset Intelligence from GE delivers a range of condition monitoring solutions that optimize asset deployment, reduce costs and increase utilization across your entire fleet.

Product Tracking

GE is the only company in the world with experience in every mode of transportation. VeriWise Intermodal capabilities leverage the broad resources of GE to understand customer needs and translate our industry knowledge into innovative products and solutions that have a clear impact on your bottom line.

Rail/Shipping

As the owner and lessor of one of the world's largest fleets of tractors and trailers, rail cars and containers, Equipment Services has a depth of experience with diverse transportation assets and a broad range of customers in more than 30 countries that gives us a uniquely comprehensive point of view on the global supply chain.



Petrochemical Process

Rely on GE for a complete line of chemical treatments and other technologies and services for producing chemical and petrochemical products. Our technologies have long track records in each specific product sector and are tailored to suit your individual operating requirements. Whatever your interest, you can count on GE.

Automation

GE offers an assortment of products and solutions such as controllers and intelligent electronic devices (IEDs), portable test equipment and transformer management systems that enable utility personnel to further improve asset performance and network reliability.

Compressors

GE manufactures a complete range of compressors for all major compression services. They are used in the oil and gas production, gas transportation, refinery and petrochemical industries. Our compression solutions range from small, rotary vane compression units to equipment for the highest power, pressure and flow, operating in the most difficult environments.

Drives and Controls

GE's experience, product knowledge, access to product information and support of our field and factory engineers enables us to provide prompt, comprehensive parts and services, for all your GE turbine controls and industrial drives.

Emissions Testing

GE helps you meet constantly changing regulatory demands by offering technologically advanced CEMS and Data Acquisition and Handling Systems backed by superior service and training programs.

Expanders

Turboexpanders offer the highest power level, operating temperature and pressure ratio solutions for energy recovery and refrigeration.

Exchangers

GE is a world leader in the design and manufacture of air-cooled heat exchangers. The experience we have accumulated during more than 50 years of serving the oil and gas markets qualifies us to provide clients worldwide with the highest quality equipment.

Fin Fans

GE's Fans and Blowers department offers a complete array of services, including weld repairs, machining, parts re-engineering and manufacturing and dynamic balancing and laser alignment, both in-shop or on-site.

Motors

GE Motors provides a full spectrum of services, including inspection, coil maintenance and repair, pole work, cleaning and treating windings and performing megger tests and AC voltage drop tests.

Optimization

One of the first steps in meeting regulatory requirements while improving operations is to optimize the boiler combustion process through reliable instrumentation, boiler balancing and combustion diagnostics.

Outage Planning

Designed to replace the many loose papers and confusing forms that were once a necessary part of the outage process, Outage Optimizer speeds planning, reduces quotation turnaround time and makes collaboration with the service team much more convenient.

Process Management Software

Managing more oil and gas transmission pipeline than any other provider, our pipeline data management software and services put into practice the experience we have gained in the last several years.

Process Water Treatment

Controlling process quality is critical in every sector of the chemical process industry. Based on its strong market position and decades of experience, GE can provide an unparalleled range of offerings to optimize your performance and profitability.

Reactors

We manufacture heavy wall reactors for refineries, tubular reactors, special vessels for petrochemical production plants and large high-pressure heat exchangers. We also have extensive experience with welding high-strength materials and manufacturing equipment for urea and ammonia production plants.

Reliability Centered Maintenance

Today's competitive and deregulated markets demand longer life and greater reliability from aging electrical transmission equipment. Oil analysis is an important part of any Predictive Maintenance (PDM) or Reliability Centered Maintenance (RCM) program for fluid-filled electrical equipment.

Remote Monitoring and Diagnostics

Early leak detection is critical to minimize generator damage and to improve outage planning.

Sensors

GE provides reliable sensors to measure load current, temperature and partial discharge accurately and cost-effectively.

Training – Technical and Product

Employee training is one of the most important investments a company can make. As competition intensifies, technical competence becomes increasingly important in operating and maintaining system reliability, achieving exemplary customer service and pricing transactions and ancillary services accurately.



Cogeneration

Using waste heat and combined heat and power (CHP), plants generate electricity and heat locally where they are needed. They offer maximum efficiency in the conversion of energy and comply with the most stringent emissions standards.

Air Emissions

Our team of project managers, engineers, scientists and field technicians provide the full range of air emissions testing and comprehensive testing capabilities with our growing fleet of more than 40 mobile labs with remote monitoring and diagnostic capabilities.

Boiler Steam Treatment

GE offers a wide array of technological options to meet the most challenging energy requirements. Using an integrated approach that includes parts, service, repair and project management, we deliver results that contribute to our customers' success.

Cogeneration

Combined heat and power (CHP) plants generate electricity and heat locally where they are needed. They offer maximum efficiency in the conversion of energy and comply with the most stringent emissions standards.

Combustion Optimization

One of the first steps in meeting regulatory requirements while improving operations is to optimize the boiler combustion process through reliable instrumentation, boiler balancing and combustion diagnostics.

Emissions Testing

GE helps you meet constantly changing regulatory demands by offering technologically advanced CEMS and Data Acquisition and Handling Systems backed by superior service and training programs.

Gasification

GE provides long-term license agreements that include the gasification process design package, process and instrumentation design review with EPC, start-up support, operator training, on-going technical support and products supply.

Process Fuel

GE consultants can review your process and recommend improvements, provide budget estimates, detailed engineering, procurement, and project implementation.

Training – Technical and Product

As competition intensifies, technical competence becomes increasingly important in operating and maintaining system reliability, achieving exemplary customer service and pricing transactions and ancillary services accurately. Field-seasoned instructors who combine their understanding of theory with practical experience teach GE's Oil & Gas technical courses.

Utility Island

GE's solar modules and systems have proven performance and reliability. Utilizing our industry expertise and leadership in energy technologies, GE is currently pursuing a number of projects that will make large-scale solar installations simple and affordable.



Power Delivery

For over 80 years, utilities have relied on GE to deliver electrical products and services to meet their quality, durability and performance needs. Today, our grid and asset management suite, advanced distribution infrastructure solution and substation management tools can help deliver superior customer care, system reliability, and operating efficiency.

Motor Control Centers

GE is a long-time industry leader in low and medium voltage motor control centers. We offer a variety of services to enhance the reliability and operation of your equipment.

Outage Planning

Designed to replace the many loose papers and confusing forms that were once a necessary part of the outage process, Outage Optimizer speeds planning, reduces quotation turnaround time and makes collaboration with the service team much more convenient.

Reliability Centered Maintenance

Oil analysis is an important part of any Predictive Maintenance (PDM) or Reliability Centered Maintenance (RCM) program for fluid-filled electrical equipment.

Remote Monitoring and Diagnostics

Early leak detection is critical to minimize generator damage and to improve outage planning.

Substations

Today's demands on power substations are greater than ever before, challenging operators to maintain a continuous, reliable power supply and reduce costs. A rigorous, proactive maintenance program is the key to minimizing transformer failures and unplanned outages.

Training – Technical and Product

As competition intensifies, technical competence becomes increasingly

important in operating and maintaining system reliability, achieving exemplary customer service and pricing transactions and ancillary services accurately. Field-seasoned instructors who combine their understanding of theory with practical experience teach GE's Oil & Gas technical courses.

Transformers

GE's global service center network provides expert on-site and in-shop testing, repair, modernization and upgrade services for transformers. We service all types of equipment from many OEMs, including power transformers, phase shifters, distribution transformers, regulators, reactors, furnace transformers and rectifier transformers.

Transformers – GE-Prolec

GE-Prolec offers a full range of transformer products for the utility, residential, commercial, industrial, and energy markets. Complying with all applicable standards, these products provide flexible, reliable, and robust designs to support the customer's various substation and power plant applications.

Transmission and Distribution

GE has a comprehensive transmission and distribution portfolio with products and services that enable grid intelligence processes. These tools help utilities better manage assets and resources by converting data into knowledge that decision makers use to drive greater productivity and profitability.

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imagination at work

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