

# RANGE OF SERVICES SERVICES



## KEY SERVICES AT A GLANCE:

### HIGH VOLTAGE MANAGEMENT

- ▲ Substation Maintenance programs: a customized scope of work based on tests and inspections in accordance with NETA standards
- ▲ Transformer testing and repairs, retrofilling, oil filtration and degassification
- ▲ Switchgear testing, calibration, upgrades and modernization of controls
- ▲ Relay and Meter testing and calibration
- ▲ Circuit Breaker inspection, testing, calibration, rebuild and conversions
- ▲ Cable hypotential testing, repair and replacement
- ▲ Ground fault system repairs and upgrades
- ▲ Electrical systems trouble shooting
- ▲ Equipment failure restoration 24/7

### POWER "ON" SERVICES

- ▲ Thermographic (Infrared) Inspections
- ▲ Insulating fluid analysis, dissolved gas, standard, water, power factor, inhibitor and furan analysis
- ▲ Monthly Inspections
- ▲ Relay testing and repairs

### COMMISSIONING/ACCEPTANCE TESTING

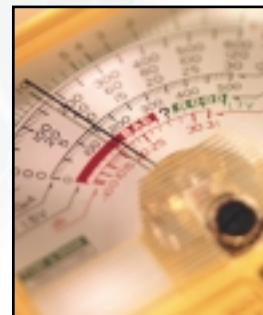
- ▲ Power systems and co-generation projects
- ▲ Specialty Startup
- ▲ Functional Tests
- ▲ Point to point wiring checks
- ▲ Protective devices set to co-ordination values

### ENGINEERING SERVICES

- ▲ System evaluation and modernization studies
- ▲ Power Quality monitoring, analysis and solutions
- ▲ System Harmonic Analysis
- ▲ Protection Device Coordination Studies
- ▲ Short Circuit Analysis
- ▲ System Load Flow Studies
- ▲ Ground Grid Design
- ▲ Power Factor Studies
- ▲ Feasibility Studies
- ▲ Single line system drawings
- ▲ High resistance grounding applications

### PCB MANAGEMENT

- ▲ Reclassification of PCB low level contaminated transformers
- ▲ PCB contaminated transformers repair, replacement and disposal
- ▲ PCB storage site decommissioning
- ▲ Determine PCB contamination in insulating fluids, water, soil and debris
- ▲ PCB spill clean up



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## HIGH VOLTAGE MANAGEMENT

Safety and reliability of supply power to your company is our main concern at Rondar Inc. Our goal is to increase the safety and reliability of our customers' power system equipment through effective testing, inspections and equipment upgrades.

Transformers can be considered the heart of your electrical system. Testing will be performed on the transformers insulating medium and cooling systems, checking for deterioration or blockage, as this can be detrimental to the life of your transformer. Rondar professionals will evaluate the results of these tests by identifying areas of concern and provide a basis for scheduled repairs. Fault damage to equipment can be significantly limited with proper maintenance of protective devices. Instruments, relays and meters are an integral part of the electrical protection system and require scheduled cleaning, verification testing and calibration to ensure correct operation. Critical in-line devices, such as air, oil or gas circuit breakers provide overload protection to your feeders as well as short circuit protection for your system. As such they remain energized, operate seldom and are often overlooked in regular preventative maintenance. We recommend these devices be cleaned, mechanically inspected and electrically tested as part of your maintenance program and upgraded where necessary to meet today's regulatory standards.

As specialists in high voltage management, Rondar's staff delivers a complete range of high voltage management services to protect your system and keep it operating. Enabling engineering and maintenance personnel to focus on production issues. Our team of experts work on site along side your personnel or independently, depending on your requirements. As your system grows and changes over time, a properly coordinated program will help keep operations running smoothly. We can update your existing records or start from scratch. The important thing is to have confidence in your system protection without taking a chance on an unplanned shutdown.

Consider Rondar as your full-service partner, constantly developing methods to improve reliability and extend the life of your equipment.

## POWER "ON" SERVICES

Improve your equipment's reliability and avoid physical injury. Thermographic inspections can be conducted at any time without shutting down the system and can detect high resistance connections, overloads and leakage's before permanent damage is done to the installation. Identifying premature problems allows for corrective action during scheduled maintenance. Data gathering through thermography provides you with a better understanding of operating condition and normal wear on the equipment for such items as electrical switchgear, transformers, bus bar connections and fuses.

Our state-of-the-art Insulating Fluid Lab provides a range of tests in accordance with ASTM standards: standard fluid analysis, dissolved water, dissolved gas analysis (DGA), furan analysis and inhibitor content. The results of the analysis will provide you with the present electrical and chemical condition of the fluids and the transformer. In all cases where the results are marginal or poor, we will specify the area of concern and the necessary corrective action.

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## COMMISSIONING/ACCEPTANCE TESTING

As an independent third party, Rondar's professional engineers and engineering technologists have the experience to commission your state-of-the-art electrical equipment. Rondar Inc's numerous commissioned projects range from 230 kV substations for oil, gas, utilities, steel and automotive industry to complete 13.8 kV/600 volt distribution systems. Electrical equipment is inspected and tested for design performance. This would include incoming line structures, power transformers, switchgear, protective relaying, power cables, distribution substations and process controls. Your design engineer will know that the equipment was installed in accordance with the job specifications. Electrical contractors will be confident that the start-up will be trouble free and that all controls and protective systems will function properly.

## ENGINEERING SERVICES

Rondar's staff of Professional Engineers, Certified Engineering Technologists and Technicians are fully qualified to perform a range of essential diagnostic services using advanced testing techniques and innovative, yet proven solutions. Our goal is for your electrical system to have the capacity of handling and clearing faults to prevent any unnecessary downtime or failure. Considering today's technology and the on-going changes this technology demands we provide engineering studies, load monitoring, power quality and harmonic analysis to diagnose potential problems and provide cost effective solutions. Our recommendations support your continuous improvement objectives relating to health and safety and productivity by minimizing power disturbances and interruptions.

## PCB MANAGEMENT

At the forefront of the industry Rondar has been working with customers for over two decades to reclassify PCB low-level contaminated transformers. We begin by determining the PCB contamination levels in insulating fluids through our in-house Insulating Fluid Lab, and follow through with inspecting, testing and repair of PCB contaminated transformers. We are on call 24/7 to respond to PCB spills and provide clean up services. We work closely with the Ministry of Environment to decommission PCB storage sites and offer turnkey solutions for replacement and disposal of PCB contaminated equipment.

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