

IETS

Engineering Services

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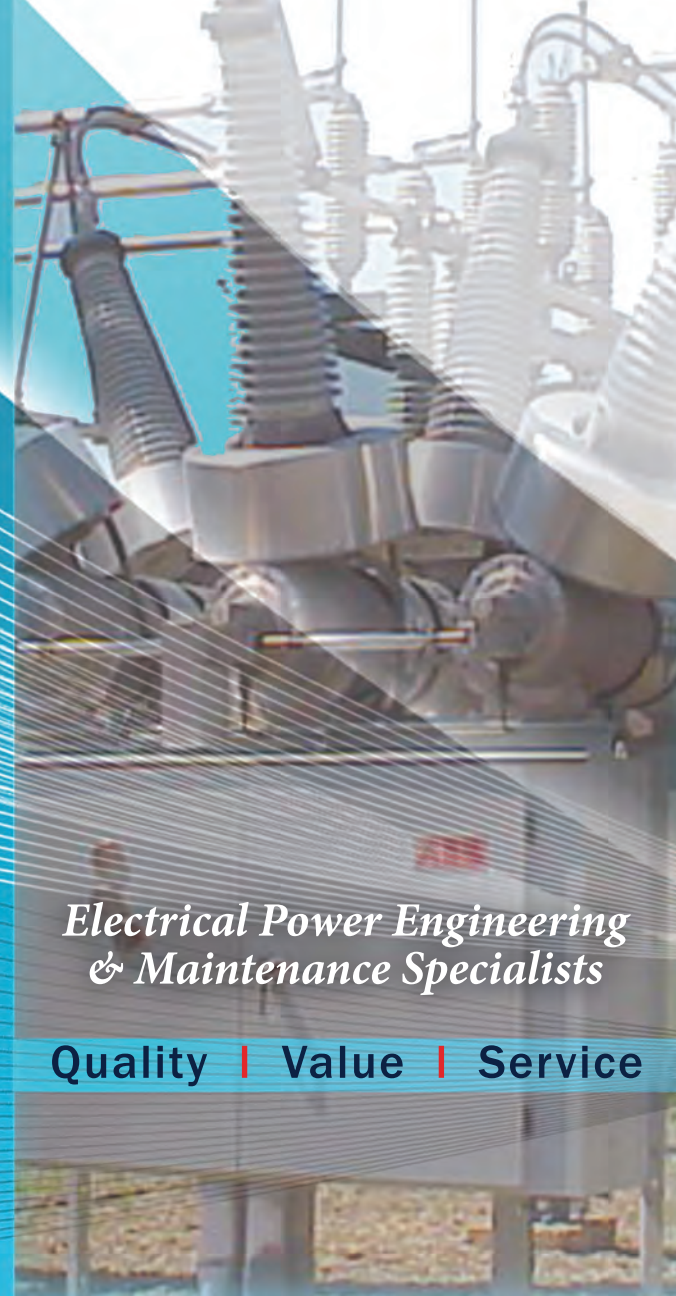
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Visit us at
IETSPower.com

IETS

Engineering Services



*Electrical Power Engineering
& Maintenance Specialists*

Quality | Value | Service

Since 1997 IETS has been a full service Electrical Field Service organization complete with every type of field testing equipment and vast engineering service expertise. Our technical expertise and personnel acumen came from such companies as GE, ABB, Westinghouse, Waukesha, Square D, and Kodak, with our highly qualified staff averaging over 20 years experience in the High Voltage Engineering, Maintenance and Service field.

Servicing clients in every industry (auto, chemical, utility, health care, steel, etc.) in our local market area, IETS would like to thank each customer for their continued business support. We welcome the opportunity to provide our services to others that may not be aware of the depth of our experience and would be pleased to provide references and examples of past project successes. We look forward to continuing our preferred status with our customers while introducing new customers to that same level of service.

Ours is truly a business dependent upon the satisfaction of our customers so you can rest assured that we will always strive to gain your confidence and provide you with the most competitive and reliable service possible.



In 2008, IETS became the Authorized Service Provider for ABB Medium Voltage, Low Voltage and Relay products. Our personnel demonstrate the capabilities to support ABB's OEM products such as ABB roll in replacements and breaker retrofills. Currently, there are a large installed base of circuit breakers that do not meet the safety requirements or short circuit ratings of recently completed Arc Flash studies. IETS / ABB can provide solutions to fit your needs with replacement insulated case breakers or arc protection relays that will allow you to meet Arc Flash requirements.

CIRCUIT BREAKER FACILITY



Did you know that IETS reconditions/retrofits/repairs about 200 circuit breakers a year?

We have a complete Upstate NY Circuit Breaker Facility and our technicians have the expertise to repair any OEM circuit breaker. (GE, ABB, Cutler Hammer, Westinghouse, ITE, Square D, Siemens, A-C, etc.)

We have contracts with several customers to maintain breakers on a continual basis. Our breaker maintenance procedures are always tailored to the needs of individual customers as some want minimal testing procedures while others request a complete refurbishment and retrofit of their outdated breakers.

SITE PROJECT ENGINEERS



IETS has Project Engineers that report directly to your site on a daily basis. This allows you to have the expertise that may not be available on site in addition to accessing our knowledge base and testing equipment that can be supplemented (when needed) by our other engineers and technicians. This helps create

a partnership between IETS and you, the customer, which provides a sense of urgency and access that would not be available in the standard subcontracting business structure.

POWER SYSTEMS ENGINEERING

IETS performs various Short Circuit, Protective Device Coordination and Arc Flash Studies for our customers. We can obtain the data, provide the studies in notebook form, make equipment recommendations, provide labels, review safety requirements or any other facet dealing with your high voltage distribution system.

SOURCING CONSULTANT

Let's face it; everybody is very busy with the day to day pressures and there just isn't enough time to research all the alternatives when considering an equipment purchase.

That's why **several of our customers rely on us to be their high voltage electrical sourcing consultant.**

There are dozens of suppliers of transformers, SF6 breakers and switches, switchgear, relays, bushings, breaker parts, etc. and as in every business, there are low cost providers and higher quality alternatives. IETS works with these suppliers on a continual basis and we're happy to contract with customers to share this information and help them make the best decision for the budget they are trying to

achieve. This would include investigating reconditioned / surplus equipment at a significant cost savings to our customers.

Over the years, IETS has sourced and installed many LV circuit breakers, substation transformers and complete LV unit substations that saved the customer thousands of dollars!



SAFETY SEGMENT



Our Field Service Engineers and Technicians arrive on your site wearing

the appropriate personal protective equipment (PPE) including Arc Flash resistant clothing, flash suits, gloves, voltage detectors, glasses, hard hats, and any customer specified safety requirement. All of our personnel have the OSHA safety training and HV

training required to work in the field. IETS will always review customer safety requirements to make sure specific needs are being met. IETS is trained and proficient in the methods and procedures of the business of High Voltage Engineering, Maintenance and Testing.

OIL SWITCH REPLACEMENT

A couple of years ago, IETS discovered a leaking bushing on a customer's MV oil switch during a routine maintenance service contract. IETS recommended replacing the bushing connections with an OEM supplied part at a later date when the customer had time for another outage.

After reviewing our report the customer asked that we provide replacement bushings and install them so that the situation would not deteriorate.

We discovered from the OEM that the product was no longer supported

because it was an unsafe design. The customer determined that due to the safety concerns and age of this oil switch (over 20 years), IETS should replace the oil switches. **Our engineers were able to design a replacement that would allow the customer to use his existing silicone filled transformer, through an insulated (dry) cabling transition to an SF6 / Vacuum replacement MV switch. This gave the customer an updated / safer design and the ability for selective switching of this substation.**



RE-INSULATE MV SWITCHGEAR

During another routine maintenance contract for a customer, IETS discovered a section of switchgear that had very poor insulation resistance measurements on



one phase of bus as compared to the others. IETS returned later, during a planned outage, to reinsulate all of the bus sections throughout the gear. IETS obtained all of the necessary bus insulating materials, staffed the job around the clock and completed the project within the customer allotted time frame.

During disassembly we noted that the old insulation had deteriorated and that some of the bus was pitted and arcing to the metal cabinet walls! **This was a perfect demonstration of performing routine maintenance, finding an area of concern from the maintenance, repairing the equipment at a significant savings of replacing with new and avoiding a catastrophic failure.**

ARC FLASH SEGMENT

Section 5(a)(1) of the Occupational Safety and Health Act, otherwise known as the general duty clause, requires an employer to furnish "employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to employees." As most of us in the industry are aware, Arc Flash has come to the forefront of every plant's electrical safety protocol.

IETS can help your company adhere to the requirements and also provide mitigation techniques that best suit your particular needs.

