



The GAL Power Source - Engineering Edition

Points of Interest

GAL would like to congratulate the following technicians for their recent graduation of the EGSA Testing procedure. They are the first in Canada to receive this designation

Toronto:

Mike Marshall

Alan Trinkwon

Ottawa:

Richard Howard

Chad Gibson

Ron Petrin

Contact GAL for more information at:

powersourceeng@galpower.com

If you received this e-mail in error, we apologize. To unsubscribe from The GAL Power Source please send an e-mail to powersourceeng@galpower.com with the subject line "Unsubscribe"

If you received this e-mail forwarded from a friend and would like to sign up for your own newsletter, please send an e-mail to: powersourceeng@galpower.com with the subject line "Subscribe"

Making the most of backup power systems with Bi-Fuel: Are you running at peak efficiency?

Being in charge of large energy backup systems can be a difficult experience. Ever cut the lawn and run out of gas half way through? The only difference is that when an emergency hits, you won't have time to do it on the weekend. When the power system needs to be at peak efficiency and the reservoir is on half is not exactly the situation that any facility manager would like to face (especially when fuel delivery can take several hours to days depending on the nature of the emergency). One new promising solution to this dilemma is the use of natural gas Bi-Fuel unit as part of your backup system. Imagine again that you are in the middle of cutting the grass the thunder is rolling in and a magical hose is inserted and the life of your gas is extended just long enough to beat the rain and complete the job.

A Bi-Fuel System is a new technology that enables operators of heavy-duty diesel engines to substantially reduce operational costs and emissions by substituting diesel fuel with lower cost, cleaner-burning natural gas. The system is comprised of a series of technologies that allow engines to safely operate on gas percentages ranging from 50% to 75% of the total fuel requirement without compromising such critical requirements as efficiency, stability and load acceptance.

One key feature of this technology is the ability to switch while "hot". If we go back to our lawn cutting analogy, this means that without even the need to shut down the mower, additional fuel supplies can be added to the mix. As a facility manager, this can be a major advantage due to the automated fuel gauge systems that many of these large generators have. The switch to natural gas can be made from anywhere in the world if the correct web enabled controllers are present in the system. For operations above the programmed power limit, the engine is automatically switched to 100% diesel mode, thus avoiding the necessity to de-rate the engine.

Contact Bill McMillan at GAL Power Systems for a demonstration of our on-site Bi-Fuel system at w.mcmillan@galpower.com



Elias Ayoub performing preventative maintenance on our on-site Bi-Fuel unit

Electrical Generation Systems Association certification of GAL Power:

As part of its commitment to quality standards GAL Power Systems recently became the first and only EGSA certified firm in Canada. Through a program called the Electrical Generator Systems Technician Certification Program, GAL has enrolled many of our technicians to measure objectively the professional abilities of the technicians we employ. To date 5 of our technicians have graduated the program and several more are enrolled for the coming months.



To be certified, you must pass an exam developed by experts in the On-Site Power Industry. The EGSA Generator Systems Technician Certification Test which measures proficiency in the installation, maintenance and repair of generator sets. Testing covers Basic Electricity, Prime Movers, Generators/Alternators, Engine Generator Instrumentation and Controls, Governors, Automatic Transfer Switches, Voltage Regulators, Multiple Generator Switchgear & Controls, Auxiliary Support Systems, Startup/Commissioning, and Troubleshooting System Problems.

EGSA technician certification demonstrates GAL's professionalism and commitment to the highest of standards in the industry. When you work with GAL Power Systems you can be confident of our commitment to meet or exceeds the specifications set out by the EGSA. For more information on EGSA certification please visit www.egsa.org.

EnerShift – Demand Response and Distributed Opportunities Energy in Ottawa

Hydro Ottawa is launching a distributed energy and demand response program this year focused on reducing the demand on the electricity system during critical periods. They have retained Rodan Energy and Metering Solutions to roll-out Rodan's enerShift demand response offering in Ottawa's service territory.

Customers who can curtail their electricity consumption through load interruption, load shifting or self-generation, will receive a capacity payment for their availability and an energy payment for the hours they are asked to respond to a Demand Response (DR) activation.

The enerShift program comes out of the need to reduce electricity demand in Ontario, which is at an all-time high. The summer of 2006 saw the peak demand in Ontario reach a record 27,005 megawatts (MW). As the demand grows, so does the pressure on the existing generation resources. As part of the strategy to meet the energy needs of the province, the government has mandated the reduction of electricity consumption by 6,300 MW through Conservation & Demand Management by 2025. A fundamental part of this initiative is Demand Response. DR refers to the short-term reduction of electricity consumption in response to system reliability concerns, supply shortages or a pre-determined market price and allows users of electricity to be compensated for reducing electricity drawn off the grid at times when the system capacity is reaching its limits and during periods when wholesale electricity prices are very high.

Rodan is working with GAL Power in both the Greater Ottawa Region and throughout Ontario to identify and assess demand resources. Qualified commercial, institutional, and industrial businesses and organizations that agree to reduce demand or self-generate are paid quarterly, regardless of whether or not the need arises.

For more information please contact us at galpowersourceeng@galpower.com or visit www.enerShift.com.