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**Information Sheet # 109**  
**EGSA Technician Training for Generator Set Systems**

*Your Reliable Guide for  
Power Solutions*

**1.0 Introduction:**

The Electrical Generating Systems Association (EGSA) is the world's largest organization exclusively dedicated to On-Site Power Generation. The Association is comprised of over 750 companies including generator set manufacturers and authorized distributors of their products. EGSA is a leading authority in the development and monitoring of performance standards for the On-Site Power Industry. EGSA and their members know that standby generator systems have to be maintained in a constant state of readiness to provide power to critical life and economic applications should the utility be taken off-line. Reliability is directly coupled with the level of service provided and the quality of the service technician. Over the years, EGSA has worked with their membership group to define an EGSA standard of proficiency that a service technician should aspire to.

*This information sheet discusses the EGSA technician training for generator systems, course offerings, and costs.*

**EGSA George Rowley School of On-Site Power Generation**

<b>Basic Program</b>	<b>Advanced Program</b>
Introduction to On-Site Power Systems	Advanced Generators/Alternators
Basic Electricity	Genset and Critical Power System Controls
Prime Movers	Generator and System Protection
Introduction to Generators/Alternators	Advanced Automatic Voltage Regulators (AVRs)
Starting Systems	Advanced Governors/Speed and Load Controls
Introduction to Automatic Voltage Regulators	Advanced Transfer Switches
Introduction to Governors/Speed & Load Controls	Multiple Generator Paralleling Switchgear
Introduction to Transfer Switches	Engine Emissions
Load Bank Fundamentals	Noise Control
Generator Set Instrumentation	Communications
Codes and Standards	Advanced Generator Systems: Sizing to Service
Generator Set Systems: Putting the Pieces Together	
Understanding Bid and Specification Documents	
The Basic School is geared for those that need an understanding of the theory and application of the mechanical and electrical components within a generator system, starting with Basic Electricity. Many sales, marketing, management, applications engineers, engine technicians and administrative personnel have benefited from this course.	In comparison to the Basic School, the Advanced School is designed for those who have a good understanding of the basic mechanical and electrical systems found in an on-site generator set. A minimum of 3 years experience in the industry is recommended and it will be particularly useful for those employed in engineering, project management, service positions, and technicians preparing to take the EGSA Journeyman Level Technician Certification Test.

To fulfill our commitment to be the leading supplier in the power generation industry, the RP Power teams ensures they are always up-to-date with the current power industry standards as well as industry trends. As a service, our **Information Sheets** are circulated on a regular basis to existing and potential power customers to maintain their awareness of changes and developments in standards, codes and technology within the power industry.

The installation information provided in this information sheet is informational in nature only and should not be considered the advice of a properly licensed and qualified electrician or used in place of a detailed review of the applicable National Electric Codes, NFPA 99/110 and local codes. Specific questions about how this information may affect any particular situation should be addressed to a licensed and qualified engineer and/or electrician.



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## 2.0 Why EGSA Certification:

EGSA and its members that provide generator service know the quality of generator service provided is directly linked to the skill, training and experience of the service technician. Working together they have developed a certification process for generator service technicians that is designed to ensure a technician with EGSA certification has achieved a high level of training. Many generator set bids are now calling for the successful provider to have EGSA Certified Technicians available for installation, commissioning, and service.

## 2.0 Levels of Certification:

**2.1 Apprentice Level** – No field experience necessary. Certifies that the individual has a good understanding of electrical and mechanical concepts and the components of an engine powered generator systems.

**2.2 Journeyman Level** – A minimum of 3 years experience is required and tests the technician's knowledge of all aspects of on-site power generation. There are 200 questions and 85% must be answered correctly in order to become an EGSA Certified Journeyman.

## 3.0 George Rowley School of On-Site Power Generation:

Named after George Rowley, a key member of EGSA. The school, over a 25-year period, has become the preeminent school of training and defining service for on-site power generation. Over the years, it has kept current with advances in generator technology, service methods, and controls.

The tests are proctored and conducted by Ferris State University. The test must be returned to EGSA within 30-days following the last day of the course. A passing score of 85% is required and to be issued with the appropriate certificate.

There are two EGSA course levels, covering three and a half (Basic) and four days (Advanced). The class sizes are limited to 40 participants. Continuing Education Unit (CEU's) tests for both schools are available and must be completed within 30 days of the school attendance.

**3.1 Basic Rowley School** – This course caters primarily for those that are new to the industry or need a greater understanding of some aspects of power generation. Basic electricity fundamentals and theory are taught along with a general introduction covering prime movers, generators/alternators, automatic voltage regulators, governors and load controls, automatic transfer switches, sizing and service, bid and specification documentation. This school is very helpful for those studying for the EGSA Technician Certification Apprentice Level test. (See chart front-page)

**3.2 Advanced Rowley School** – This is highly technical and provides a greater in-depth look at all the equipment employed. It is designed especially for those technicians in engineering, project and/or service departments. A thorough understanding of electricity is essential in order to grasp the concepts that are discussed, such as paralleling switchgear. A minimum of more than three years experience in on-site power generation is recommended and each individual completes the Basic School before attending the Advanced School. The Advanced School is very helpful to those studying for the EGSA Technician Certification Journeyman test. (See chart front-page)

## 4.0 Course Locations:

Each year, EGSA organizes three Basic Schools in different cities across North America (the last one each year is held in conjunction with the PowerGen International trade show). Two separate Advanced Schools are also scheduled. These are planned well in advance, so the most convenient sites can be selected.

## 5.0 Course Instructors:

All course instructors are EGSA members who have volunteered their time to conduct a module (or more) covering their particular field of expertise. Attendees receive input provided by some of the leading professionals from the power generation industry.

## 6.0 EGSA School Costs (2019):

The following are the costs involved for a single attendee.

- **Basic School:** \$1485.00 for EGSA member, \$1805.00 for non-member
- **Advanced School:** \$1555.00 for EGSA member, \$1875.00 for non-member
- **CEU Test:** Either school, (optional) \$50.00

**Note!** These costs cover breakfast, lunch and a copy of the 5th Edition of the 729-page EGSA On-Site Power Generation: A Comprehensive Guide to Power Generation, but NOT airfare, hotel or any other incidentals (additional meals, etc.). In addition, each participant is given a thumb drive/memory stick containing handouts of all the presentations made during the course.

## 7.0 Test Costs (2019):

These tests are administered for EGSA by Ferris State University. They arrange for a proctored test site close to the technician's location, generally within a 2-hour drive. There are over 300 test sites in the US and Canada.

- **Apprentice:** \$50.00 both EGSA member and non-member
- **Journeyman:** (200 test questions) \$150.00 EGSA member, non-member \$425.00
- **Proctoring Fee:** Approximately \$40.00 per test
- **Study Guide:** Apprentice \$40.00 EGSA, \$50.00 non-EGSA, Journeyman \$50.00 EGSA and \$100.00 non-member
- **Study Guide if Bundled with EGSA On-Site Power Generation:** A Reference Book. The cost is included-in the Basic course. **Otherwise the fee will be - Apprentice - \$175.00 both EGSA and non-EGSA, Journeyman - \$185.00 EGSA and \$335.00 non-EGSA**

## 8.0 Number of Certified EGSA Technicians:

At the end of 2018, there were over 2,000 currently certified technicians within the United States, Canada, and 35 other countries.

## 9.0 Benefits of EGSA Certification:

EGSA certification demonstrates to existing and potential customers that an authorized generator distributor believes in continuing education of their employees and having a well-trained, knowledgeable support team that are particularly proficient and adept at troubleshooting all brands of generator sets and their systems.