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nember companies with a "pulse" or sense		generation packages, as well as com-
nember companies with a "pulse" or sense	pea the 2016 power generation	ponent level trends to enhance the As-
	market to finish above 2015 levels.	sociation membership's market knowl-
of the on-site power industry as large and	Twenty-three (2.3) of forty-seven (47)	edge of trade, product sales, growth
in opportunity to compare their impres- tions with other EGSA Member compa-	respondents (49% - down slightly from 53% in 2015) reported erowth	rate, emerging technologies, economic trends, market forecasts and other su-
ties. Survey results are neither designed.	in 2016 year-to-date power emera-	tistical data in an effort to assist As-
sor are they intended to, include or pro-	tion related sales over 2015; Nine (4)	sociation members in accomplishing
ride price sensitive or competitive data.	respondents (19% - 29% less than	their objectives.
Survey Methodology	2003) indicated relatively flat sales in 2016 year-to-date; and fifteen (15)	Last year, the Committee offered all EGSA Members an opportunity to par-
An email invitation to participate was	respondents (32% - up from 19%	ticipate in the 2006 Fower Generation
ent to more than 2,500 primary and sec-	from those reporting in 2015) in-	Market Survey to gauge their impres-
ridary contacts at DGSA Member compa-	dicated sales in 2016 have declined	sions concerning current business con-
sies for whom email addresses are on file. IGSA incentivized those who completed	from 2015 levels.	ditions relating to the genset industry As a courtesy, EGSA has produced this
he survey with a chance to win a \$200	<ul> <li>Thirty-four (34) of forty-seven (47)</li> </ul>	summary of these survey results. For
plft card to be chosen by random drawing	respondents (72% - down from 78%	more information about the survey or
rom those EGSA Members who complet-	in 2015) anticipate growth in 2017	the Market Trends Committee, contact
ed the survey and included contact their information.	power generation related sales com- pared to 2016: an additional twelve	Joe Zirnhelt at jgirnhelt@powersys.com EGSA does not require are respon-
mormation.	(12) respondents (25% - up 4% from	dent to provide proof of income, sales
Survey Results and Conclusions	2015 survey) anticipate relatively	volume or company size via support-
The 48 survey respondents represented	flat sales while one respondent fore-	ing data or third party verification.
a wide cross-section of the membership and returned a good distribution of the	casted declining sales for 2017.	EGSA makes no claims regarding the statistical accuracy of the survey's
data. For purposes of reference and with-	<ul> <li>Employee staffing levels over the</li> </ul>	negatis as they relate to current or fa-
out comment, data from the 2015 survey,	past 6 months reflect a stable or	ture real world economic conditions.
s also represented in the graphs for pur-	growing market amongst EGSA	EGSA makes no claims or recom-
poses of comparison to 2016 results. In his year's survey we have included again	member companies. Pilteen (15) re- spondents (325) reported increases	mendations concerning the use of this survey's results for marketing or sales
neo free form questions regarding 1) the	in staffing levels over the nam 6	projections. As designed and conduct-
inpact of advancements in reciprocating	months, (40%) reported relatively	ed, this survey is strictly intended to
ingine power generation technology and	flat employee growth. Thirteen (13)	gauge impressions concerning com-
2) identification of the greatest challenges	respondents indicated employee	pany performance as well as current
acing the onsite power industry. A summary of each question along	reductions, up from five (5) in the 2015 survey.	and short term future market condi- tions across the entire range of EGSA
with a chart or graph illustrating the dis-		membership.
ribution of responses may be found in		

EGSA Power Generation Market Pulse Survey; Page 17.



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#### EGSA 2017 Spring Conference

March 19-21, 2017; Kissimmee (Orlando), FL

EGSA's Annual Spring Conferences feature educational sessions on a broad range of issues impacting the On-Site Power Industry. More information will be available at *www.EGSA.org* or by calling (561) 750-5575.

#### EGSA 2017 Fall Conference

September 17-19, 2017; Minneapolis, MN

EGSA's Annual Fall Conferences feature educational sessions on a broad range of issues impacting the On-Site Power Industry. More information will be available at *www.EGSA.org* or by calling (561) 750-5575.

#### EGSA 2018 Spring Conference

March 18-20, 2018; Bernalilo, NM

#### EGSA 2018 Fall Conference

September 23-25; Nashville, TN

#### **Industry Trade Shows**

#### POWER-GEN International 2017

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### ADVERTISERS INDEX

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# FROM THE TOP



Charlie Habic 2017 EGSA President crhabic@gillettegenerators.com

# **Charlie Habic - 2017 EGSA President**

Our 2017 EGSA President, Charlie Habic, is the President and Owner of Gillette Generators, a privately held U.S. manufacturing firm that offers a diverse line of generators for our industry. Headquartered in Elkhart, IN and an EGSA Member company since the early 90s, Habic became personally involved in EGSA in the late 90s and has remained active ever since. "My father, Ray Habic, joined EGSA in 1992 and then later encouraged me to get involved and stay involved. I have him to thank for my introduction to EGSA," Charlie begins.

Contributing to our association in numerous ways, Charlie's service to EGSA ranges from his active service on the Membership and Conference Planning Committees to his term on the EGSA Board (2007 through 2009). "Committee meetings are where everyone in the Association has a



Many friendships are formed during EGSA networking opportunities, including the annual golf tournaments. (**I to r**: Hal Walls, Marty Morrill, Rick Hodgkins, Charlie Habic, Dave Walch, Steve Stoyanac and Bob Lytle) voice and can shape things. The ground floor work takes place inside the walls of the EGSA Committee meetings. During my first conference, I was advised to work the committees, and 17 years later, I am repeating the same advice to new members," adds Habic.

Charlie was also Chair of the Nominating Procedures Committee (2009 until 2010), where he led a small Ad-Hoc Committee that delved into the EGSA leadership nomination process and ultimately became our current process and policies on how one becomes a leader in EGSA. He was recognized in 2012 with the EGSA Leroy H. Carpenter Award; one of our annual service awards.

ur 2017 EGSA President, Charlie Habic, is And with that, our interview gets underway...

Who has been the most influential person in EGSA during the time that you have been active? Why do you think that is true?

**Habic:** "During my almost 2 decades involvement, I have been touched by many talented EGSA leaders who have influenced me. My first EGSA moment when I thought maybe I had something to offer to the association happened in a committee meeting. Don Becker (Kohler Co.) was in attendance and he responded favorably to some comment I threw on the table. That moment in time, based on his positive feedback, gave me a little boost in confidence and from there, my interest in EGSA grew.

Another real blessing for me has been Steve Stoyanac (Chillicothe Metal), nudging me along through the years with his guidance."

#### What was your first impression of EGSA?

**Habic:** "My first EGSA Conference was at a fancy destination resort in the high desert of New Mexico, so as you can guess, that type of environment is a nice break for a guy from Indiana corn country. Immediately, several things jumped out at me... the educational products, the great speakers, the committee work and how that work serves members, the on-site power reference book, educational classes, etc.

Secondly, the networking format that exists within the conferences has always been something I have enjoyed. 'Talking shop' whether it is with a customer, vendor or a competitor is without question, a great "takeaway" from every event. EGSA conferences are the premier power generation industry networking platform."

# Where would you like to see EGSA headed in the next 50 years?

**Habic:** "Quite frankly, I am not a visionary type that sits around pontificating on what the world will look like down the road. My mind is more centered in the present. However, one key to EGSA and its future is to increase membership. Even though the Association has had nice growth over time, I am just not satisfied that we have done enough. There is no reason we should not have every manufacturer and dealer that is in the onsite power generation industry as a participating member of EGSA."

## **EDUCATION**



Michael Pope EGSA Director of Education m.pope@EGSA.org



# 3,242 Members?

Tollywood has, in my humble opinion, an  $\Pi$  odd way of judging its main product, the Movie. It is all about the box office numbers. How much money did the latest movies gross this week, this month or this year? Which was the big winner? Movie attendance is very strongly influenced by the popularity of the featured stars, the pre-release advertising and the trailers. So, it seems to me, if those factors are chosen well, a particular movie may win the numbers game for its opening week and be reported as a Blockbuster. Many people are influenced by this success and conclude that the movie must be worth watching because it grossed such large numbers. But was the movie really as good as they were led to believe? Perhaps the story line, direction and/or acting were weak and the total movie experience was less than average.

A successful product with dissatisfied customers! A note of disclosure: I have not been to a movie theater in many years, but I know several folks that have.

And the point is?..... The **George Rowley Schools of On-Site Power Generation** finished the year on a very positive note after a somewhat slow start. We had over 200 individuals attend the Basic and Advanced schools in 2016. They registered, paid their fees and transportation, spent several days at a hotel and sat through and participated in 8 or 11 topic modules. But how was their experience? Did they get their money's worth, or their employer's money's worth? Was it a good investment and good value? And did they gain knowledge?

We know the answers because every participant is asked to complete an evaluation of every instructor, every module and the entire Rowley School. An average of 88% of attendees completed an evaluation last year - some folks just prefer not to complete any surveys or evaluations. We do know that those at the extremes of "very satisfied" and "not satisfied" with an event have a strong tendency to complete an evaluation.

We explain at the start of each class that evaluations are important to future attendees because, based on their comments and suggestions, instructors frequently fine-tune their work. We want to know what we did right and where improvement is needed. We pay a lot of attention to these evaluations. The attendees rate the instructors' effectiveness, the use of PowerPoint and other teaching aids, the course content and sequencing, how much their need for information was satisfied and the complexity of the presentation. We ask if they would recommend the Rowley School to others. We ask for their comments on each module and the entire school. We ask if they previously attended a Basic School or are likely to attend an Advanced School in the future. Every instructor receives a copy of the evaluation of their module(s) after each school they teach.

We went through a full curriculum review under the guidance of Rowley School Manager, Instructor and EGSA Past President Herb Daugherty two years ago. We made significant changes, some based on these evaluations. We are planning on repeating the process again this year and, again, the evaluations will help guide us.

- 88% of attendees completed school evaluations in 2016.
- 96% of respondents stated they would recommend the Rowley School to others.
- At three consecutive 2016 schools, 100% of respondents stated they would recommend the Rowley School to others.
- The instructor approval average has improved for each of the past 3 years.
- 90% of Basic School attendees stated they would attend an Advanced School within 2 years.
- 30% of Advanced School attendees had attended a Basic Rowley School.

# Here are some comments about the Rowley Schools that EGSA received during the year:

#### BASIC SCHOOL COMMENTS

- "Very useful information for sales/service people just getting into the industry"
- "Great instructors, presentations and interesting"
- "This is a great course for basic power system information. Do plan on attending the Advanced course. I am a military member of EGSA"
- "Very informative, learned a lot"
- "Never been in the field before, learned a lot moving forward to when I take that step"

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# **Codes & Standards Update**

For more than two years, I have been an ac-tive member of a committee formed by the Consumer Products Safety Commission (CPSC) that is responsible for finding ways make small portable generators safer for the consumer. Every year, several people die or are hospitalized due to inhaling carbon monoxide fumes from the improper placement of portable generator sets in and around homes. The committee has implemented smarter warning labeling by manufacturers to improve the warning literature concerning the danger of breathing in the toxic fumes. However, users in the public do not always heed these warnings. There was the possible suggestion of a mandatory carbon monoxide level shutdown that manufacturers would be responsible for implementing within all portable generator sets under 25 horsepower, but this would add greatly to the cost and they could be disarmed.

In spite of all the work they (and others) had accomplished, the problem was still occurring. Therefore, the CPSC has issued a Notice of Proposed Rulemaking concerning small portable generator sets. Their summary states "The US Consumer Products Safety Commission has determined preliminarily that there may be an unreasonable risk of injury and death associated with portable generators. To address the risk, the commission proposes a rule that limits CO emissions from operating portable generators. Specifically, the proposed rule would require that portable generators powered by handheld spark-ignited (SI) engines and Class I SI engines not exceed a weighted CO emissions rate of 75 grams per hour (g/hr); generators powered by one-cylinder, Class II SI engines must not exceed a weighted CO emission rate of 150 g/hr; and generators powered by Class II with two cylinders must not exceed a weighted emission rate of 300 g/hr." This rule initially had a comment submission date of February 6, 2017, but this date has been extended to April 24, 2017.

If you want to get more information and wish to comment, the Document Citation is 16CFR1241, the Docket # is CPSC-2006-0057 and it was published in the Federal Register on November 21, 2016. The Portable Generator Manufacturer's Association (PGMA) is a member of this panel and they (as well as their members) are upset with the CPSC, as is UL, as this will affect UL 2201. There will be a lot of comments generated to the CPSC. The problem I see is that unless a CO shutdown is incorporated in all sets, someone will run a set in their garage overnight and no matter how low the CO emissions rate is, eventually the CO concentration will reach saturation and kill the occupant.

Another meeting of the task force was held on January 4, 2017. The CPSC proposal is still out there for comment. However, UL 2201 has been usurped by PGMA Standard G-300. So UL is proposing issuing version 2 of UL2201, which will only include the test procedure using only the dilution chamber method in the CPSC proposed rule and only for complete generator sets, with no limits on emissions. This will go to the UL2201 CPS Members soon.

A proposed review of UL 1778 Ed. 5 Uninterruptable Power Systems was opened in November with Comments closing January 9, 2017. The only things of substance I see were : Update to table 4.5.3.101A for temperature limits, corrections to Annex NNN, and additional requirements for short circuit withstand short circuit closing test port location.

NFPA 110 First Draft Technical Committee final ballot results are in and were a bit disappointing. There were 30 eligible to vote, but only 20 ballots were returned and of those 16 voted yes on all revisions, so under NFPA rules the draft was accepted.

Ballots are open for several ISO revisions/standards and will close on February 20, 2017, so if you want a negative vote from me, please contact me before February 20th with your reasons for a negative vote. These are: IS3046-6 – Reciprocating internal combustion engines – Performance – Part 6: Overspeed protection; IS7967-1 – ICE Vocabulary of components and systems Part 1 Structure and external covers; IS7967-8 – ICE Vocabulary of components Part 8 – Starting systems; IS2710-2 – ICE – Vocabulary Part 2 – Terms for engine Maintenance.

Continued on page 12

# THIS ONE GOES INTO THE PLUS COLUMN!

# The All-New GTI+ Bi-Fuel<sup>®</sup> system delivers a noticeable performance increase over earlier systems and substantially reduces operating costs.

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**NEW** specialized Altronic AGV5 microprocessor-based smart valve serves as both zero governor pressure controller and fuel valve.

**NEW** mixer design provides optimal demand signal to supply the required air/gas mixture to the engine. The proprietary design is manufactured to exacting tolerances.

GTI+

**NEW** control strategy provides electronic closed loop control between the gas train and the mixer to satisfy the gas demand at the turbocharger inlet.

**NEW** Altronic DE-3020 Controller Platform provides configurable I/O for increased flexibility across the broad expanse of diesel engine



applications such as drilling rigs, where the gas substitution rate must be mapped across the genset load range.

Find a distributor near you or learn more at www.gti-altronic.com.



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#### State-of-the-art shelters and system integration.

- ISO-9001 Certified
- 70,000 ft<sup>2</sup> of manufacturing space
- Strategically located for domestic and worldwide markets
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- Turn-key systems available
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- Unparalleled customer service
- Expertise in code compliance, extreme sound attenuation and challenging applications



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## CODES & STANDARDS

#### Continued from page 10

Dan Chisholm, Sr. MGI Consulting Inc. advised the following changes to the Joint Commission EC.02.05.07 Emergency Power Supply Systems (EPSS) protocols which became effective January 9, 2017. All the following results must be documented. All EPSS must be inspected weekly. Emergency generators must be tested monthly for 30 minutes under load. Diesel powered units must meet manufacturer's recommended exhaust temperature during test. Diesel units must be tested annually for 1 1/2 hours - 30 minutes at 50% nameplate rating and 60 minutes at 75% nameplate rating. Annually test the fuel quality to ASTM standards. I think biofuels should be tested every six months. For more information, visit www.mgi-epss. com.

I am looking forward to seeing all of you in Kissimmee for the 2017 EGSA Spring Conference. Make your arrangements and join us, as these should be some hot topics at the committee-level.

# **Wireless Generator Monitoring**

Nationwide - GSM or CDMA cellular

**Real-time** – Alerts by email or SMS text message

Simple – Mounts directly to generator and NO programming

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Any make, model or year generator

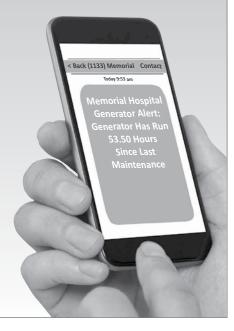
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# FROM THE TOP

Continued from page 7

# How do you think new members can benefit most from their involvement in EGSA?

**Habic:** "It is one thing to be a new member, but quite another to be a new member that actively attends and works the room at conferences. The best way to get the most out of your EGSA membership is by attending conferences. EGSA people are a friendly

group, which makes the networking comfortable and easy. The conferences are the perfect platform to establish business contacts. For every new EGSA Member, I will tell you that there are business opportunities for you roaming around somewhere at the EGSA conferences, but you have to show up and find them."

#### Do you recall a story that epitomizes EGSA colleagues working together for the good of the industry?

**Habic:** "In my time with the Association, I would point to the Tech Certification Program as being a very significant group accomplishment. It was created 10 years ago by a committee made up of John Kelly (Kelly Generator & Equipment, Inc.), Leo Leblanc (Nixon Power), Bob Hafich (Emergency Systems Service Co.), Deb Laurents (Cummins Power Generation), Jack Petro (ASCO Power Technologies) and Greg Linton (JRS Custom Fabrication, Inc.).

Our tech certification is a premier EGSA product that not only brings in new members, but also retains them. What a great sounding bell for our dealer/distributor members when they can market the fact that they bring EGSA certified techs on site to tend to the service needs of a back-up power system! As we sit here today, there are more than 1,800 EGSA certified techs in the field.

# What have you enjoyed the MOST about being a Member of EGSA?

**Habic:** "Our involvement with EGSA has had positive effects on our company, Gillette Generators. Let's face it...involvement with a trade association should positively affect your business or trade. If not, then what is the point of being a member?

Throughout our involvement with EGSA, we have met many customers over the years, as well as vendors. Believe me; I have gotten a lot more from my EGSA affiliation than I have given!"

# Did you ever aspire to be in a leadership position within EGSA?

**Habic:** "No, not initially. Over time, things evolve and opportunities emerge if you work hard. When I was on the EGSA Board of Directors from 07-09, we accomplished a few things that helped the Association and that was a good feeling. After that experience, I felt as though if an opportunity to serve further came up then I would jump at that chance, and thankfully it did. Over my almost 2 decades with the Association, I have worn many different hats, which were all useful building blocks for today."

# Can you recall a story on any of our products (such as *Powerline*, the reference book, schools, etc.) that might be impactful for a younger member?

**Habic:** "EGSA has many products to offer its members. For a new member, I would recommend studying and learning about our product offerings. Over time, I have seen the education classes

and tech certification confused by members. Not sure why, as they are two different worlds within the Association? My recommendation would be to examine our products and then determine how they can be used to help your business."

#### If you could tell a prospective member one thing about your experience as a Member, what would you impart to them?

**Habic:** "Well, I always tell new members to 'lean in' with their EGSA membership. It's just like your kid's school function, your family, your religion or any other group you belong to. Your experience, and what you get out of it, is mostly determined by you. It's impossible to survive in our society alone; we all must function daily in various groups, so why not jump in with determination?

EGSA is a trade group designed to assist and contribute to its members' long term survival, success and well being."

# Last question, Charlie...You have recruited many new EGSA Members over time, what drives you to continue to do that?

**Habic:** "Well, it's rather easy for me to find new EGSA prospects because I still travel a lot, meeting with independent power generation dealers all over North America. The independent generator dealer to me is the segment of our industry where we will find the greatest amount of potential new members. When you're in the middle of a sales meeting talking about generators, it's an easy segue to work in a word or two about EGSA. Think of where we would be if all members did that?

Here is the good news on recruiting new members: It's very satisfying to bring in a new member company and watch them grow in the Association, benefitting from EGSA products and the networking. If you enjoy the internal rewards one gets from helping others out, then try recruiting a few members and mentor them along the way in the Association. I can attest to the fact this is a very satisfying way to serve others in the on-site power generation industry."

So, that is where you will find Charlie this year, leading the Association with his best efforts. We are sorry to see his EGSA Conference emcee duties come to an end, but will look forward to his welcome address at our 52nd Spring Conference in March. We hope you can join us from the 19 – 21st, 2017 at the Gaylord Palms in Kissimmee, FL!

Since the Spring of 2015, Charlie has been the EGSA emcee for each of our bi-annual conferences. For 2017, he will be replaced by Hal Walls, as Charlie takes on the role of 2017 EGSA President.

# Power Your Imagination

# 2017 Spring Conference

March 19-21 Orlando (Kissimmee), FL

systems ssociation

# EGSA Spring Conference Preview Power Your Imagination

## News You Can Use for Starting the New Year Off on the Right Foot!

Where to begin? With 2017 running full speed ahead, you can choose to use your imagination or review this advanced look at what to expect for the EGSA Spring Conference in Kissimmee, FL.

To start, we want to let our members know that if they overhear someone talking about Tiffany glass, Showtime Network allstar comics and magic... not to think for one second that we aren't getting down to business in 2017! Those are just the extras!

#### Let Your Imagination Run Free The 2017 Spring Conference Speaker Slate



Put your imagination into overdrive with our keynote speaker, Jon Dorenbos. You may know the name from **America's Got Talent** (the NBC hit television show) where Jon made it to the finals and placed third overall in the competition amongst tens of thousands of competitors – or perhaps you're an Eagles fan and know him as their long snapper, currently in his 15th year in the National Football League (NFL).

As a professional speaker, Jon has motivated and wowed a long list of national clients (the NFL, Screen Writers Guild, Boeing, Taco Bell, the NBA, Hard Rock and Merrill Lynch to name

a few). His inspirational life story of triumph over adversity has been retold on several national television features (HBO, FOX Sports, ESPN, E! True Hollywood Story: An American Story, ABC, and CBS).

Jon started learning magic at the age of twelve and is now considered a "master magician", earning the respect of top magicians everywhere including casinos in Las Vegas, where he earns tens of thousands of dollars an hour. He had his first paying gig in Las Vegas when he was still in his teens. Through his magic, Jon emphasizes the importance of choice and openly shares his childhood tragedy. When he was twelve, his picture-perfect family was destroyed after his father murdered his mother. Jon chose to rise through adversity, set goals, no matter how high, and plan and execute the necessary steps required to accomplish these goals. Next on the slate Monday we will host EGSA Members Brian Ponstein (MTU Onsite Energy) and Tyson Robinett (Central Power Systems & Services) for a presentation entitled, **Designing a Reliable & Sustainable Generator System.** 

Developing an emergency power system to meet a client's customized and specific needs is a challenging process for the manufacturer and authorized dealer to tackle together. This presentation will showcase that process; open the discussion on what really goes into designing and developing a reliable system to meet customer expectations, and harmonizing engineering economics and reliability.

We hope you will enjoy this role playing presentation between manufacturer and dealer and working together to conduct the perfect masterpiece for the customer.

To close out our Monday General Session, we have another great EGSA Member presentation, **Imagination, Power and Profit**. Presented by Jake Jacobsen (Ring Power Corp.) and Tim Scott (Caterpillar, Inc.), this presentation will cover a local facility, Harvest Power, in Orlando, a waste-to-energy facility that provides ongoing value for its owners. The intent of this presentation is to discuss the keys to success for this local power generation system.

On Tuesday, we start strong with Steve Rizzo, the Attitude Adjuster, and his presentation, **Get Your Shift Together!** Don't let his moniker or the "catchy" title of his presentation fool you... he has a strong and powerful message to present as a personal development expert, comedian and motivational speaker.

Steve began his career as a national headline comedian with opening acts such as Drew Carey, Rosie O'Donnell and Dennis Miller. He has also shared the marquee with Ellen DeGeneres, Rodney Dangerfield, Eddie Murphy and Jerry Seinfeld, earning him honors as a Showtime Comedy All-Star.

At the pinnacle of his career in stand up, he walked away from comedy to pursue his passion – to teach people how to achieve increased productivity, greater enthusiasm and new levels of success. Steve is a member of the Speaker Hall of Fame (an honor bestowed on fewer than 200 speakers worldwide since 1977).



Brian Ponstein MTU Onsite Energy



Services

Tyson Robinett Central Power Systems & Ring Power Corp.



**Tim Scott** Caterpillar, Inc.



**Steve Rizzo** The Attitude Adjuster



Michael Brown Light Tower Rentals, Inc. (LTR)



**Basler Electric** 



Drew Johnston Field Associates, Inc.

Powerline • January/February 2017

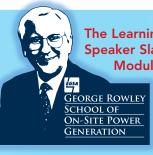
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#### EGSA SPRING CONFERENCE PREVIEW

After our informative EGSA Meeting of the Members concludes, EGSA Member company, Basler Electric, along with project partner Light Tower Rentals will host a presentation called, **Creating an Alternate Power Generation Source that Maximizes Efficiency & Redundancy.** 

Come hear Ronnie Carroll (Basler Electric) and Michael Brown (Light Tower Rentals, Inc.) as they discuss a challenging case study on a Midstream Company that required 100% backup for a gas processing plant. This system was successfully paralleled to utility and took the entire plant load in approximately 18-20 seconds consistently with all generators starting and paralleling across the five group breakers.

Our final speaker for the Spring is Drew Johnston of Field Associates, Inc. Drew will present **The Anatomy of Success**. For more than 45 years, Drew has worked as a consultant and guest speaker for corporations, colleges, small businesses and others with the goal of helping them understand how to achieve success. In the last 15 years alone, he has delivered more than 900 seminars and lectures to over 41,000 people in the United States, as well as Denmark, Taiwan, Canada and England.



#### The Learning Doesn't Stop with the Speaker Slate – the Rowley School Modules Being offered in Kissimmee are Imaginative and Won't Break the Bank!

In 2017, we will once again offer EGSA Rowley School learning modules during a con-

ference. For the additional cost of \$149 per class, our registrants can take advantage of one (or both) modules being offered in Kissimmee.

On Sunday, the 19th, Herb Daugherty (EGSA Staff) will present **Automatic Transfer Switches: What They Are and What They Can Do** during the Sunday afternoon line up. Those planning to attend this course should take a morning flight or arrive the night before so that you have plenty of time to settle in before class begins at 1:00 p.m. (until 4:00).

Steve Sappington (Caterpillar, Inc.) will present **Electrical Safety Hazards in the Workplace Awareness Training** on Tuesday afternoon (March 21) from 1:30 to 4:30 p.m. This informative educational module will cover required safety awareness training for those who may be working around product employing energized electrical components. Topics such as fundamental electrical theory, common safety hazards and their potential effects and response actions are presented.

### Networking

Networking tours that leave little to the Imagination... Join Us Tuesday Afternoon for our Networking Excursions!

#### 2017 EGSA Spring Golf Tournament

Imagination or divine intervention? Both Robert Trent Jones Senior and Junior had a hand in co-designing the Celebration Golf Club, the site of our 2017 Spring Tournament! Join your EGSA colleagues and see what it's like to play a course by renowned masters



of golf course architecture rated 4.5 stars by Golf Digest, the course design delivers a golfing experience that can challenge the pros and yet offer a rewarding time for juniors and those just learning the game. Join us on the links!

#### Winter Park Pontoon Boat Tour

Ready for a relaxing pontoon boat ride and lunch with friends? The perfect afternoon of networking has been coordinated in the first planned community of Florida, where the rich and famous live, work and shop. Experience the natural beauty of Winter Park's



Chain of Lakes and the artistic beauty of the masterpieces on the display at the Hosemer Morris Museum, where the largest collection of Louis Tiffany Art Collectibles in the world resides. Then, cap it off with a stroll through one of Orlando's most beautiful and historic botanical gardens and a fully guided tour of the illustrious Winter Park community.

#### 2017 EGSA Spring Fishing Tournament

Up your angler game and join EGSA on Lake Toho, one of the country's top lakes for catching trophy sized bass. Only a couple other lakes in North America can rival Toho's ability to produce trophy sized bass. But bass aren't always what's on the end of the



line... huge gar, pickerel and bowfin just add to the fun! Prepare to see amazing wildlife too...from Bald Eagles, Hawks, Ospreys, many different species of duck, and of course, gators! Be sure you have your cameras ready, no "fish" stories without proof!

#### Join EGSA in Florida this March!

Make your plans by registering at *www.egsa.org/spring* to attend EGSA's 52nd Annual Spring Conference from March 19-21 this year. You can also register for your hotel accommodations at the same time.

# **Register Today!** egsa.org/spring

# EGSA Power Generation Market Pulse Survey

By Chris Nagle, Dresser-Rand, A Siemens Business

#### **Report Objective**

The EGSA Market Trends Committee annually surveys the EGSA membership on how their business is performing and their power generation market opinions. The survey is conducted in August and asks respondents to compare year-to-date results with the previous year and polls for near-term, forward looking projections.

Survey results are intended to provide member companies with a "pulse" or sense of the on-site power industry at-large and an opportunity to compare their impressions with other EGSA Member companies. Survey results are neither designed, nor are they intended to, include or provide price sensitive or competitive data.

#### Survey Methodology

An email invitation to participate was sent to more than 2,500 primary and secondary contacts at EGSA Member companies for whom email addresses are on file. EGSA incentivized those who completed the survey with a chance to win a \$200 gift card to be chosen by random drawing from those EGSA Members who completed the survey and included their contact information.

#### Survey Results and Conclusions

The 48 survey respondents represented a wide cross-section of the membership and returned a good distribution of the data. For purposes of reference and without comment, data from the 2015 survey, is also represented in the graphs for purposes of comparison to 2016 results. In this year's survey we have again included two free form questions regarding 1) the impact of advancements in reciprocating engine power generation technology and 2) identification of the greatest challenges facing the onsite power industry.

A summary of each question along with a chart or graph illustrating the distribution of responses may be found in the pages following. Pertinent comments and Committee observations concerning each question's results are also included in the report.

# The Market Trends Committee noted a number of conclusions from the survey, including:

- EGSA Members in large part expect the 2016 power generation market to finish above 2015 levels. Twenty-three (23) of forty-seven (47) respondents (49% down slightly from 53% in 2015) reported growth in 2016 year-to-date power generation related sales over 2015; Nine (9) respondents (19% 29% less than 2015) indicated relatively flat sales in 2016 year-to-date; and fifteen (15) respondents (32% up from 18% from those reporting in 2015) indicated sales in 2016 have declined from 2015 levels.
- Thirty-four (34) of forty-seven (47) respondents (72% down from 78% in 2015) anticipate growth in 2017 power generation related sales compared to 2016; an additional twelve (12) respondents (26% up 4% from 2015 survey) anticipate relatively flat sales while one respondent fore-casted declining sales for 2017.
- Employee staffing levels over the past 6 months reflect a stable or growing market amongst EGSA member companies. Fifteen (15) respondents (32%) reported increases in staffing levels over the past 6 months; (40%) reported relatively flat employee growth. Thirteen (13) respondents indicated employee reductions, up from five (5) in the 2015 survey.

#### The Market Trends Committee

Chaired by Joe Zirnhelt, the Market Trends Committee provides EGSA with a forum in which market trends and other market data closely related to the power generation industry may be discussed in a way that benefits the Association and its members.

Bevond discussion, the Committee has the responsibility and ability to develop and make recommendations to the Board of Directors regarding programs and methods for the compilation of statistical information. The Committee focuses on complete power generation packages, as well as component level trends to enhance the Association membership's market knowledge of trade, product sales, growth rate, emerging technologies, economic trends, market forecasts and other statistical data in an effort to assist Association members in accomplishing their objectives.

Last year, the Committee offered all EGSA Members an opportunity to participate in the 2016 Power Generation Market Survey to gauge their impressions concerning current business conditions relating to the genset industry. As a courtesy, EGSA has produced this summary of these survey results. For more information about the survey or the Market Trends Committee, contact Joe Zirnhelt at *jzirnhelt@powersys.com*.

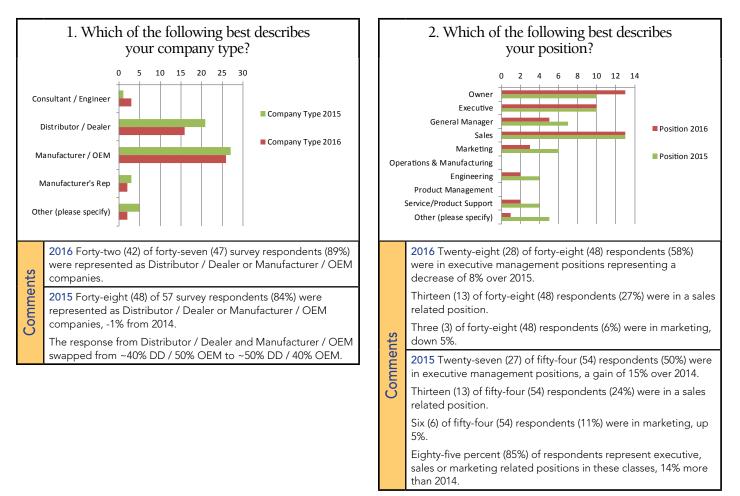
EGSA does not require any respondent to provide proof of income, sales volume or company size via supporting data or third party verification.

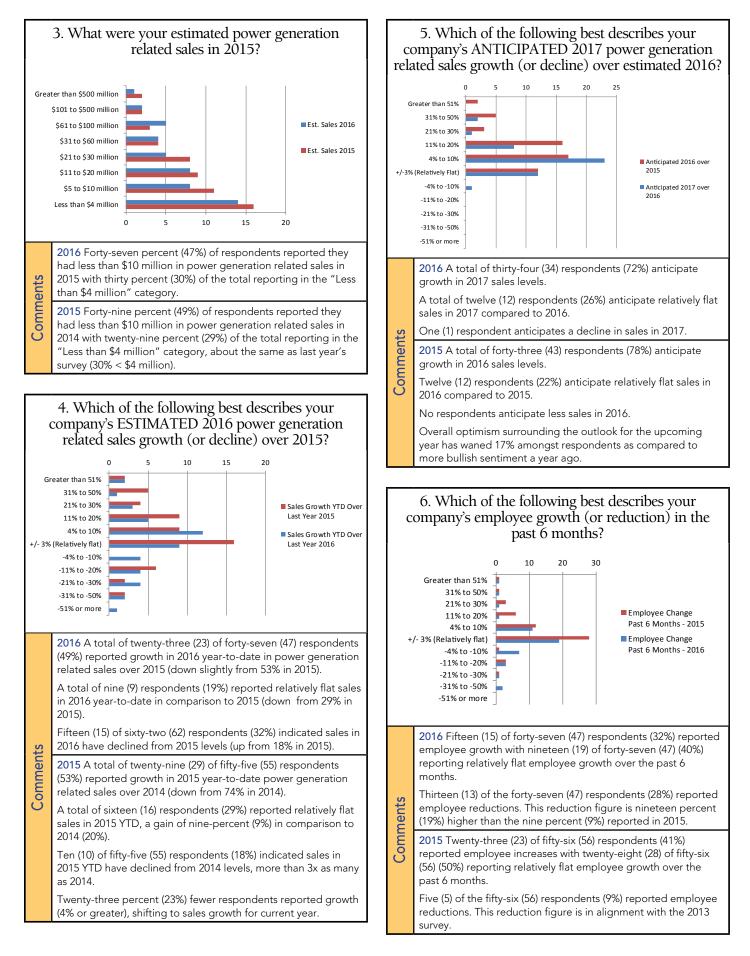
EGSA makes no claims regarding the statistical accuracy of the survey's results as they relate to current or future real world economic conditions. EGSA makes no claims or recommendations concerning the use of this survey's results for marketing or sales projections. As designed and conducted, this survey is strictly intended to gauge impressions concerning company performance as well as current and short term future market conditions across the entire range of EGSA membership.

- Twenty-seven (27) of forty-seven (47) respondents (57%) anticipated employee staffing levels to remain relatively flat to plus/minus 3% over the next 12 months. Eighteen (18) of forty-seven (47) respondents (38%) are anticipating increases in employee staffing levels in the range of 4-20%.
- The Northeast region is the most represented with 54% of respondents citing the Northeast as the region where sales primarily occurred. The Mid-West (40%) and the Southeast (31%) regions were similarly represented as two of the remaining major regions mentioned by respon-

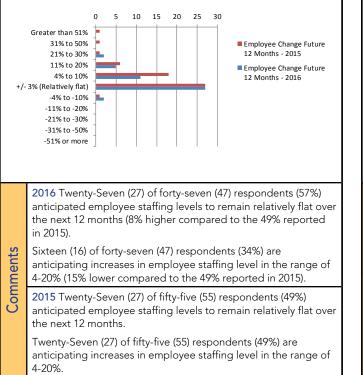
dents. The Hawaii region was the least represented at eight percent (8%). Twenty-three percent (23%) have sales in Canada and only ten percent (10%) have sales in Mexico.

- Key market segments for EGSA Members participating in the survey as reflected by those with a high percentage of importance ranking of 1, 2, 3 included: Other Commercial Facilities, Telecom, Data Center, Healthcare and Rental/ Towable. Other Commercial Facilities replaced Healthcare as the most important market. Residential and Marine were the least important markets.
- Gaseous fuel applications as a percentage of respondents' total power generation sales showed a gain for 2016 relative to 2015. A total of thirty-three (33) of forty-one (41) respondents (80%) mentioned that gaseous fueled applications accounted for at least ten percent (10%) of their 2016 sales. This is an increase of nineteen percent (19%) from one year ago when sixty-one percent (61%) of respondents mentioned that gaseous fueled applications will account for at least ten percent (10%) of their 2015 sales.

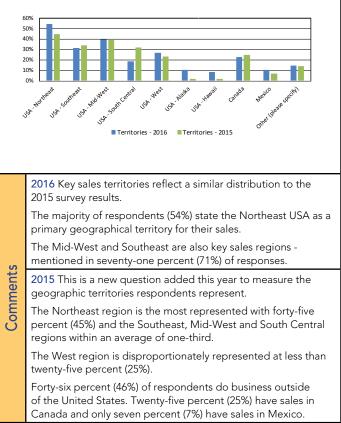




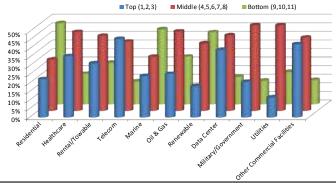
# 7. Which of the following best describes your company's employee growth (or reduction) in the next 12 months?



8. Thinking about your sales figures, what geographic territories did your sales PRIMARILY occur? (select 1, many or all related)



# 9. Please rank the following markets 1 to 11 in the order of their importance to your company's sales growth with "1" being the most important and "11" being the least important.



The market importance level indicates where EGSA members focus their engineering, sales and marketing efforts. Please note that these levels are "of the moment" and do not necessarily indicate a company's ongoing or future marketing strategy.

2016 Key market segments for EGSA Members participating in the survey as reflected by an importance ranking in the "Top" category of 1,2, 3 included Other Commercial Facilities, Telecom, Data Center, Healthcare and Rental/Towable.

Other Commercial Facilities replaced Healthcare as the most important market. Residential and Marine were the least important markets.

2015 Key market segments for EGSA members participating in the survey as reflected by an importance ranking in the "Top" category of 1, 2, 3 included Healthcare, Data Center and Other Commercial Facilities. The least important segments included Marine, Residential, and Renewables.

Healthcare replaced Data Center as the most important market while Marine became the least important market over Residential.

Note that Oil & Gas remained within +/- 2% of 2014 of all "top" categories.

omments

■<3%

4% - 10% 11% - 20%

21% - 30%

31% - 50% 51% - 70%

71% - 90% >90%

#### 10. Please indicate your company's ESTIMATED 2017 power generation sales growth (or decline) over 2016 in each of these categories?

	esidential enewable	2. Healthcare 8. Data Center		Rental/Towable Military/Government	4. Telecom 10. Other Cor		Oil & Gas . Utilities
	segment reveal to the market so top importance percentage of t	ok for 2017 by marke s a close correlation egments that were o The following are t the followi	f he arket	2015 The outlook for 2016 b segment reveals a close cor the market segments that w importance with the except Military where segment gro a 9% growth over 2014's our outlook fell 17% while reside	relation to rere of top ion being wth represents tlook. Oil & Gas	2014 The outlook for 2015 by segment reveals a close corre to the market segments that top importance. The following percentage of total response segment, indicating a positive 2015 (in descending order):	elation were of g are the s, by market
Comments	Other Commer Data Center Telecom Healthcare Rental/Towable Military / Gove *Utilities Renewables	9	71% 56% 55% 49% 49% 47% 43% 44%	The following are the perce responses, by market segme a positive outlook for 2016 ( order): Other Comm. Facilities Data Center Military/ Govt Healthcare Rental/ Towable	ent, indicating	Data Center Other Commercial Facilities Healthcare Oil and Gas Rental / Towable	68% 63% 61% 58%
	Oil and Gas Residential		32% 32%	Telecom Oil & Gas	43 <i>%</i> 42% 41%	Military / Government Telecom	49% 48% 45%
	Marine *Note: Utilities the 2016 Pulse s	were introduced as a s urvey.	<b>25%</b> egment in	Renewable Marine Residential	28% 25% 22%	Residential Renewables Marine	37% 32% 20%

11. What percentages of your total power generation related sales would typically be attributable to each of the following applications (duty cycles)?

> 10 15

COGENERATION (The simultaneous production and use of electrical and thermal energy from a prime mover - unlimited annual running hours - less maintenance).

PEAK SHAVING (2000 – 5000 annual running hours, typically 3,400 hours per year at a slightly higher than continuous rating and paralleled to the utility)

CONTINUOUS (100% rated load, unlimited annual running hours – less maintenance)

PRIME (varying load profile, unlimited annual running hours – less maintenance)

DEMAND RESPONSE (<500 annual running hours with utility compensation)

STANDBY (varying load profile, unlimited running hours during an outage)



91% of respondents indicated that peakshaving duties account for 20% of sales or less.

92% of respondents indicated that demand response accounted for 20% of sales or less.

85% of respondents indicated that cogeneration accounts for 20% of sales or less.

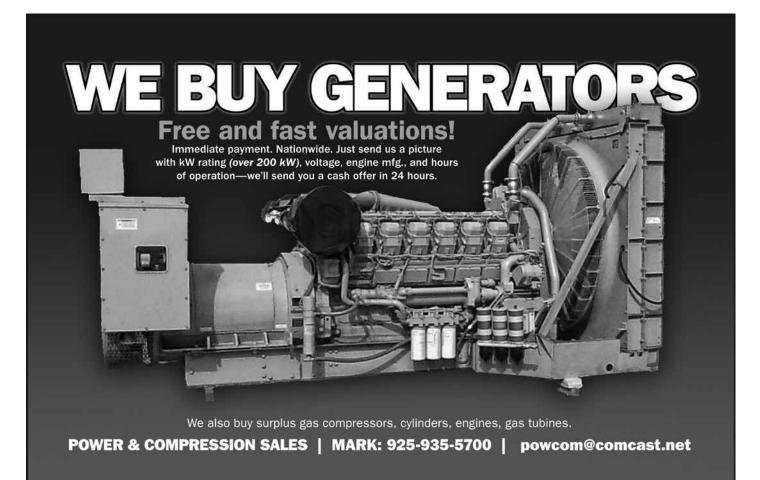
Comments 2015 53% of respondents indicated that over 50% of their sales were derived from standby duty applications

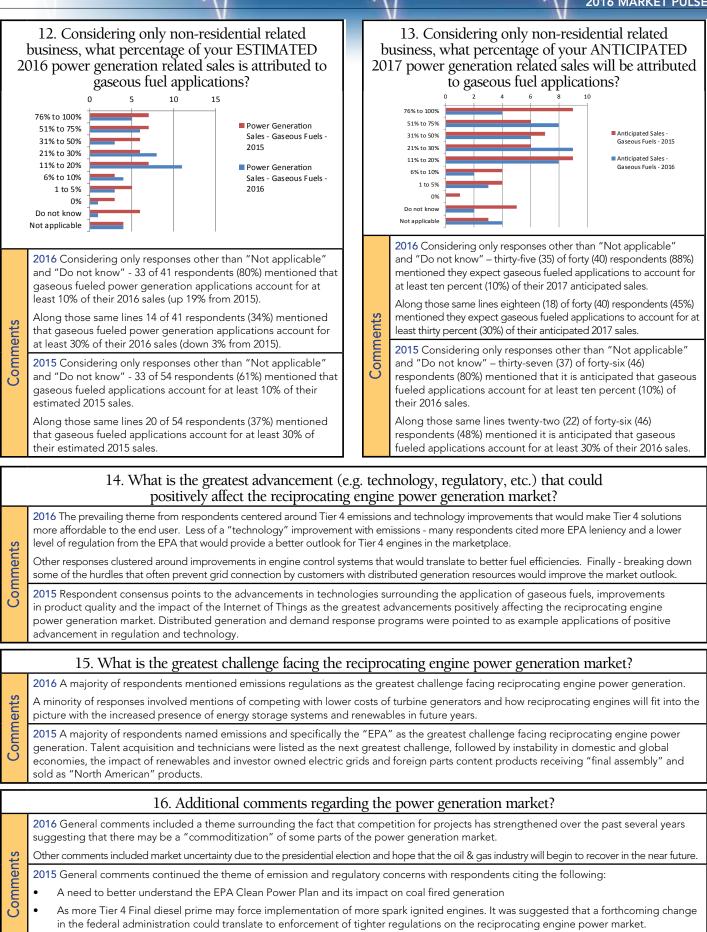
89% of respondents indicated that peak shaving duties account for 20% of sales or less

83% of respondents indicated that cogeneration accounts for 20% of sales or less



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One Distributor/Dealer Executive reminds industry stakeholders to "... Have Fun!"

#### Continued from page 8

### **EDUCATION**

#### ADVANCED SCHOOL COMMENTS

- "Excellent, should be longer"
- "Wealth of information! Well worth it."
- "Excellent! Very experienced instructors"
- "Very impressed overall. Want to continue with this program"
- "Very comprehensive"

Are we satisfied with these results? Not exactly. We have come a long way since the first school in Denver 34 years ago! There is, and probably always will be, room for improvement.

#### Here is what we are working on:

- The lowest scoring module appears overly complex and is being rewritten for 2017.
- We expect to approve at least two new instructors to bring us up to full strength with at least two instructors available for every module. We presently have a team of 23 approved instructors.
- The curriculum review will create improvements but those affecting the Learning Objectives (LO)/Learning Outcomes (LO) and CEU test cannot be implemented until 2018. LO/LO are clearly stated for the 2017 teaching season and cannot be changed.

The Association should be very proud of the Rowley School instructors. They are highly motivated, professional, knowledgeable and great teachers.

Our thanks, as always, go out to them and their employers for the huge contributions they are making to the people of the On-Site Power Generation industry.

What about the 3,242? That is the number of member registrations we have had for the Rowley Schools since the start of the year 2000.

#### We got it done in 2016!

While time was not on our side, EGSA's Fairbanks Morse Grant Committee was able to complete all the work required to launch the EGSA Fairbanks Morse Grant for Veterans before the end of 2016. But the Fairbanks Morse Grant Committee – Jil Holmstrom and Jeff Powell who is a veteran, both from Fairbanks Morse Engine, and two veterans from EGSA,





Tom Wein (Generac Power Systems) and Doug McGaughy (ESSE) completed the tasks in time to go public in September. The deadline for the 2016 entries was December 1st.

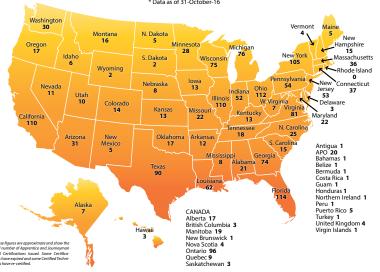
The seven veterans since approved by the Committee can now proceed with ordering the appropriate study guide and a copy of *On-Site Power Generation: A Comprehensive Guide to On-Site Power* to prepare themselves for the vigorous EGSA Technician Certification test. The Grant covers the cost of these materials and the test, which has to be taken during 2017.

Applications from veterans for the 2017 FME Grants may be submitted any time up to the December 1st deadline. Details and the application form are available at **egsa.org**.

Anyone that goes through one of these study guides will very quickly realize how much power generation knowledge is needed in order to pass the test ...and where they have a knowledge gap. And that is when the self-education starts, with the help of our reference book, their employer, colleagues and any other resources that might be available. And all this is to the great benefit of the technician and those that employ him or her.

Talking of EGSA Certified Technicians, check out the map below, copied from the EGSA website, to see how many of them may be in your State.

1860\* EGSA Certified Technicians



This certification "flywheel" has considerable momentum and energy! 2016 saw a record number of technicians gain their certification. Now we have multiple EGSA Certified Technicians in almost every State – from 2 each in Wyoming and South Dakota to 114 in Florida. At present, we do not have any members in Rhode Island, but that State is actively serviced by DDs in the surrounding states. Most of the Canadian Provinces have Certified Technicians – 96 in Ontario!

#### During 2016,

- 63% of those taking the Apprentice Level test passed and became EGSA Certified.
- 45% of those taking the Journeyman Level test passed and became EGSA Certified.

Heed that ancient motto of the Boy Scouts: BE PREPARED!

Comments or questions? Send me an email: *m.pope@egsa.org.* 





# GE's Distributed Power Provides Peaking Power Solution in North America

Sky Global Power One Power Plant Colorado County, TX



Most Texans know their state bird and state flower (That's the mockingbird and bluebonnet for the out-of-state folks). Texans also know they have a large installed base of wind and solar power supporting factories, hospitals, schools and homes. However, as Mother Nature would have it, the wind does not blow and the sun does not shine every day, even in Texas. With over 11% of the state's power generated from solar and wind, contingency plans must be in place in order to address inevitable weather variations. Utilities and cooperatives are turning to natural gas reciprocating engines, because they combine efficiency and operating flexibility producing low emissions.

Sky Global Partners chose six of GE's Jenbacher J920 FleXtra gas engines for its power solution. The 51 MW plant, located in Colorado County, TX, supplies peaking power to meet the power demands of the San Bernard Electric Cooperative (SBEC) in an eight-county region of south central Texas. Sky Global partnered with SBEC to develop 'Sky Global Power One'. help, the natural gas engines have a wide range of fast response capability including:

- **Engine Start:** 5 minutes from initializing start and synchronizing to full load.
- **Idle Response:** Idle a unit for a limited period of time. Unit is ready to be loaded at an instant. Ramp up time to full load in <3 minutes.
- Low Load Operation: 40% load at continuous operation of each unit. Units can respond to a load demand with around 3 MW/minute.
- **Fast Restart:** No holding time required after a scheduled engine shutdown and an engine re-start.

The power plant also can "black start" in case of a supply line interruption and run in island mode to generate power for custom-

ers during a grid outage.

GE Power supplied the core equipment consisting of six engine/generator packages with individual engine control panels, an uninterrupted power supply converter panel, medium voltage junction box, exhaust silencer, a selective catalytic reduction (SCR) system to reduce exhaust gas emissions, start up and commissioning.

# Flexibility to offset the volatility of renewable power sources

Due to the increasing installed base of renewable power generation in the Electric Reliability Council of Texas (ER-COT) region and the intermittent nature of these energy sources, the power plant must be able to provide a high degree of flexibility within a short period to offset the volatility of the wind and solar resources, thus ensuring grid stability. To



Sky Global provides power to an 8 county area using GE gas engines.



#### Are You a Veteran of the Armed Forces in the Power Generation Industry? Would you like to learn more about the exciting

world of onsite power through formal education?

The objective of the EGSA Raymond G. Russell Education Grant for Veterans program is to support our Nation's armed services veterans as they return from service, offer education in our industry and at the same time the opportunity to become engaged with our organization.

These annual grants are designed to provide qualified individuals with a full ride on all costs associated with the EGSA George Rowley School of On-Site Power Generation (Basic or Advanced). Travel expenses that meet our travel policy are also included. The goal is to provide additional education, through attendance at a Rowley School, and improve the veteran's skill set to make them a more attractive candidate for hiring.

Eligibility requirements and submittal materials can be found on the EGSA Website: www.EGSA.org

## Apply Today! Deadline: July 1, 2017

#### Are You a Veteran of the Armed Forces in the Power Generation Industry?

Would you like to become an EGSA Certified Technician?



The objective of the EGSA Fairbanks Morse Education Grant for Veterans program is to support our Nation's armed services veterans as they return from service, offer a technician certification test and at the same time the opportunity to become engaged with our organization. This annual grant is designed to provide qualified individuals with a full ride on costs associated with the EGSA Certified Technician test (Apprentice or Journeyman level). The Grant will provide, at no charge, the test study guide, a copy of On-Site Power Generation: A Comprehensive Guide to On-Site Power and pay the certification testing fee. A small charge to cover the proctor's fee may be payable on site by the technician.

Eligibility requirements and submittal materials can be found on the EGSA Website: www.EGSA.org

## Apply Today! Deadline: October 1, 2017

POWER

OWER

The Voice of the On-Site Power Generating Industry

Powerline Magazine is EGSA's flagship publication. Whether you are an Engineer, Salesperson, Generator Service Technician, Distributor/Dealer or you just have an interest in On-Site Power, you're sure to find something engaging in every issue.



You could be qualified to receive EGSA's Powerline Magazine absolutely



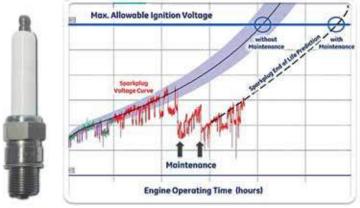
EGSA Electrical Generating Systems Association www.egsa.org/publications/powerlinemagazine/subscribe.aspx Electrical Generating Systems Association (EGSA)

1650 South Dixie Highway, Suite 400, Boca Raton, FL 33432 (561) 750-5575 • EGSA.org • email@EGSA.org

Key Technical Data	
Number and type of units	6 x GE J920 FleXtra gas engines
Electrical Output	51.42 MW
Gross electrical efficiency	7,264 BTU/kWh (LHV) 8,063 BTU/kWh (HHV)
NO2 Emissons	25 mg/Nm³ @ 5% O₂ 12.2 ppmvd @ 5% O₂
Commercial operation date	April 2016

Sky Global contracted with a local US based EPC (Engineering Procurement & Construction) company to design and construct the overall power plant. SBEC's participation in the project includes not only purchasing power, but also active management of the power plant and a long-term ownership position.

The 51 MW plant and existing utility-grade substation are located on five acres. The engines are located 26 feet apart, centerlineto-centerline, under a 230 foot by 77 foot powerhouse that is 46 feet high. The six individual exhaust silencers and SCRs are located outside and behind the engine room followed by an exhaust stack, and the radiators per engine cooling loop are behind the stack. The sound requirement is 60dB(A) at the property line, and with the SCR system the NOx emissions can be reduced by 95%. The powerhouse construction consists of an engine hall with an LV and MV electrical area, a parts room, a mechanical room, a room for urea tanks, and a control room. The oil tanks are located outside next to the engine hall. The electrical generators are connected to GE's medium voltage switchgear, where power is distributed to the generator step-up transformer (GSU).



Example of how the remaining useful lifetime of spark plugs is predicted

The high-side of this 60 MVA GSU is directly connected to the San Bernard 115 kV substation providing power to the co-op T&D (transmission and distribution).

The units shipped directly from the factory in Jenbach, in three fully-assembled and tested modules, engine, turbocharger

accessory (TCA) module, and alternator. This allowed the GE-contracted crane operator to easily handle the lifts and set the equipment on spring isolation in one day. The plant was designed, permitted, constructed and commissioned within an 18-month project plan. GE's Distributed Power also was awarded a multi-year operations and maintenance (O&M) contract for the entire power plant. GE's certified on-site team operates the units according to customer requirements and is responsible for routine inspections & maintenance, and dispatching of the entire power plant. The dispatch of the units is based on a minimum ERCOT LMP (Locational Marginal Price), pre-agreed with the customer for high

profitability. A dedicated service team, based in the US, takes care of long term maintenances and engine overhauls.

The after-sales spare parts supply is secured with a three-tier logistics process. The first tier is a robust onsite spare parts inventory management consisting of consumables, such as filters or spark plugs, and a certain amount of other critical spare parts, such as pre-assembled power units. A power unit consists of a connecting rod, piston, cylinder liner, jacket water and a cylinder head. Part of the on-site inventory are the most important tools for maintenances and special tooling for fast execution of a power unit exchange. The first tier secures the continuous operation of the power plant and in case of an unplanned outage, a fast return to service of the equipment. The second tier spare parts supply is supported by the North American GE Distributed Power warehouse in Wisconsin. This warehouse acts as backup to the onsite inventory and stores all other spare parts which are required to maintain the power plant throughout the lifecycle but are not required on a regular basis. The warehouse in Wisconsin is able to supply spare parts to the customer site in Colorado County within 24 hours. The third tier is the global Jenbacher service spare parts warehouse located in Germany.

The global warehouse in Germany acts as backup for tier 2 and all possible spare parts for the power plant are available at this warehouse location.

An essential part of the multi-year O&M agreement is an Asset Performance Management (APM) system, called myPlant, with a new customized set of databased solutions that allow Jenbacher gas engine operators to gain real-time performance and operation intelligence for each asset.

For example, with GE's APM solution the power plant operations team can see on myPlant the remaining useful lifetime of an asset's spark plugs and can proactively exchange those that have low remaining useful life, possibly avoiding a trip. Notifications also are available via email and text message or as push notifications on a smartphone.

# EGSA Provides Education & Certification Benefits!



#### THE GEORGE ROWLEY SCHOOLS OF ON-SITE POWER GENERATION

One of the key components of growing professionally is to keep rising to new challenges and opportunities. Keep your skills sharp by participating in our edu-

cational programs and stay abreast of technologies that support the Power-Generation Industry! EGSA offers a rigorous, two-tiered educational program, with schools throughout the U.S. that outline the technical aspects of power generation.

Perfect for staff new to the industry or someone who needs a refresher course, our Basic School is appropriate for anyone who needs a foundation in generator technology (sales, marketing, parts, service, even administrative staff). With our Advanced School, expect our highly skilled and knowledgeable instructors to go into great detail on subjects like parelleling, speed, load control, generator protection and voltage regulation and more. Need more information? Visit our website to see what offerings we have for this calendar year!

#### **Continuing Education Unit (CEU) Program**

After attending one of our On-Site Power School classes, demonstrate what you have learned with Continuing Education Units! CEUs are awarded after you attend one of our schools.



#### **TECHNICIAN CERTIFICATION**

Generator technicians vary in skill level from employer to employer and market to market. Finding a way to identify a proficient and knowledgeable technician, or even identifying a technician's skill level can be challenging.

The EGSA Technician Certification Program has expanded to meet these challenges! We now offer 2 levels of Certification.

Apprentice Level (certification valid for 3 years) The Apprentice level exam provides technical college students, recent graduates, military personnel and other 1st or 2nd-year technicians with proof that the basic skill set has been met.



Journeyman Level (certification valid for 5 years) Our Journeyman exam assures an employer that this technician meets or exceeds 3 years of practical field experience. It tests in 61 individual areas of expertise and was upgraded in 2014 to reflect current technology.



Membership in EGSA guarantees that for under \$200, generator technicians can achieve the industry standard. The benefits are immeasurable! Visit our website for additional detail on the program.

egsa.org



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# **MTU Onsite Energy Powers Leading International** Healthcare Technology Company

Heart of Data Center Powered by **Diesel Generator Sets** 

Tn February 2015, Cerner Corporation an-Lnounced the completion of its acquisition of Siemens Health Services. The acquisition reinforces Cerner's global presence and bodes well for the industry as next-generation health IT solutions are developed to help control costs, enhance patient experience, and protect health data.

Healthcare data centers, like the Cerner Technology Center in Malvern, PA, protect critical electronic patient health records (EHR) that,

if made susceptible to power loss, could have far-reaching and longterm effects on both patients and providers.

#### Loss Leader

One of the most common causes of data loss in healthcare is unexpected power-supply failure. A key component in the prevention of data loss is emergency backup power generators to protect against outages.

With 18,000 facilities in over 30 countries to protect, including hospitals, blood banks, pharmacies and urgent care centers,



Outside the Cerner Technology Center, MTU Onsite Energy Series 4000 generator sets are contained in Level 2 sound attenuated enclosures.

*a large-scale project to upgrade* its primary electrical distribution system, including new switchadvanced generator sets designed to communicate seamlessly with peripheral equipment and handle existing loads, while offering the flexibility to carry increased load as the business grows.

the Cerner team embarked on a large-scale project to upgrade its aging electrical infrastructure under the leadership of Lane Keyser, critical facilities engineering manager. Like most Critical Facility Managers, Keyser's worst nightmare was twofold:

Managing the growth of high-density computing systems' thirst for power, and sustaining longterm electrical support if

the electrical grid were to fail by natural or intentional actions. "Without our unfaltering support, hundreds of hospitals could be hindered from delivering critical care," said Keyser.

The brand-new electrical system would require additional, more powerful generator sets to support the needs of the existing data center and a possible addition. Three MTU Onsite Energy Series 4000 generator sets, contained in Level 2 sound attenuated enclosures, specifically designed for continuous runtime, were selected.

implemented continuous improvements to its critical infrastructure to eliminate single points of failure. *In 2014, the company completed* boards, transformers and a suite of

Over the years, Cerner Technology

Center- Malvern (CTC-MV) has

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# Generator Monitoring System

By Generator Solutions, Inc.





A sophisticated control system of Siemens PLCs coordinates the seamless operation of seven generator sets, four switchboards and two utility sources.

#### **Powerful Proficiency**

To meet precise performance and functional requirements, the design team contracted the local MTU Onsite Energy distributor and long-time power partner, Emergency Systems Service Company (ESSCO) for specification of the three units. Rated at 1,600 kWe prime / 1,750 kWe (standby), the MTU Onsite Energy generator sets are approved for an 85% 24-hour average load factor (15 percent above industry standard) and renowned for best-in-class reliability and availability. The EPA Tier 2-certified units also offer versatility and flexibility in design, a key requirement for the project. A sophisticated and complex project, ESSCO provided design assistance and project management for a full suite of emergency power system equipment, including new paralleling gear, redundant programmable logic controller (PLC), 1,600 kW resistive load bank, 2,000 amp portable generator quick connects, fuel polishing system, and a 15,000 gallon main fuel tank.

"The success of our decade long relationship of upkeep and reliability, assured me that ES-SCO would bring the correct mix of talent and technologies to the project," Keyser shared.

With a goal of adding capacity while eliminating single points of failure, the team took a unique approach. Partnering with Enercon Engineering of Peoria, IL, ESSCO renovated the existing lineup of paralleling gear and Detroit Diesel generator sets using industry standard digital controls. Enercon implemented the system on the specified Siemens PLC devices, which were used to coordinate the operation of the four Detroit Diesels and three new MTU Onsite Energy generators.

With seven generator sets, four switchboards and two utility sources, the numerous PLCs are an essential element as they make decisions based on available sources, when, where, how and if they should to respond to changing power conditions. The sophisticated control system of Siemens PLCs, which oversees the entire infrastructure, was architected by Jeff Jerome of Siemens Industries. "The self-healing dual architecture runs the show, selecting between any of the numerous conditions the electrical 'ring' buss can encounter," noted Keyser.

"It was important that all the equipment run in synchronization," said Joseph Stillman PE, Chief Electrical Engineer at Sharpe Engineering, a fullservice mechanical, electrical, plumbing and fire protection engineering firm that supported the project. "The PLC system really made the entire paralleling process seamless and effortless."

#### Carrying the load

Being a mission-critical operation required that installation and commissioning take place with no disruption to the critical load or any of its support systems. To that end, Keyser and his team journeyed to Mankato, MN for factory witness testing of its new generator equipment.

"We needed to install the new generation equipment and be able to rely on it right out of the box," said Keyser. "This would ensure our electrical contractor, Union Electric, could safely migrate the entire building full of critical equipment. Seeing it put through its paces instilled confidence that the units would perform when needed."

Once all of the facility loads were safely migrated, the existing generator complex was upgraded, tested and commissioned in a live setting. Union Electric completed all of the wiring for all power and communication.

#### **Demand Response**

The state-of-the-art installation of the MTU Onsite Energy generators makes reliable power available any time. After the



MTU Onsite Energy Series 4000 generator sets are approved for an 85 percent 24-hour average load factor (15 percent above industry standard).

project was completed, Cerner started a demand response program in the summer of 2015 with MAPP, an energy supplier for PJM Interconnection, the regional utility grid authority. During critical periods of overload to the electrical grid, the CTC can be seamlessly transferred to on-site generation. The power transfer is undetectable to even the most sensitive monitoring equipment and reduces regional energy consumption.

In June 2015, a mandatory multi-hour DR test was conducted at the CTC in order to fulfill contractual terms. "We use this time to train our critical facilities engineers on the gear operation, it's not every day we just pull the plug, but I'm confident we can day or night," said Keyser.

"It's particularly cool with the closed transition transfers we can initiate. Not even our most sensitive downstream equipment sees the change to generator and back."

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# **VOLTAGE REGULATION MASTERED**

#### DIGITAL REGULATION BENEFITS

- More precise regulation throughout temperature range
- Enhanced load transient performance
- Easily adaptable for maximized generator operation

#### **REDUCED INSTALLATION COSTS**

- Reduced wiring
- No dedicated paralleling current transformers
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### ENHANCED MONITORING AND PROTECTION

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Custom transformers - Voltage regulators - Genset controls - Excitation systems - Protective relay systems - Plastic components

#### **Unparalled Support**

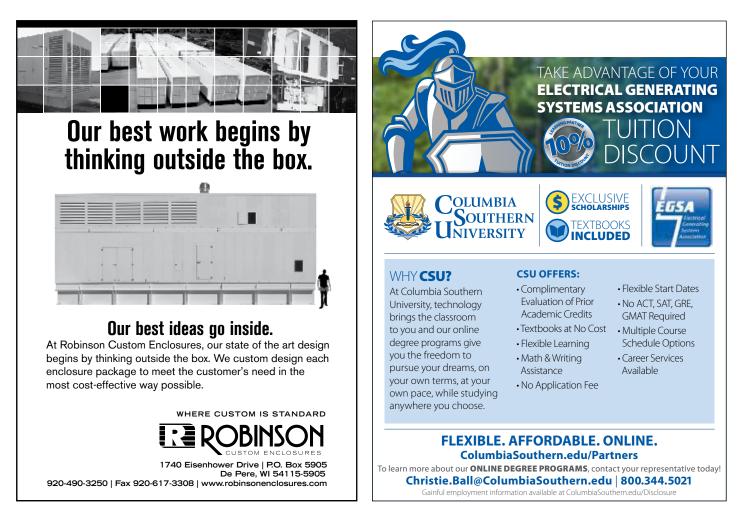
Cerner's critical facilities team and ESSCO have a long-standing partnership dating back many years. ESSCO supports a comprehensive maintenance schedule that includes planned service on all of the generator sets and associated equipment, as well as 24-hour on-call support.

"After many years of project development, this critical data facility now has a state-of-the-art power infrastructure that blends new with well-maintained legacy equipment to provide multiple levels of redundancy," said Jim Marks, Sales and Project Manager at ESSCO for this project.

"We at ESSCO are proud and honored to have been the chosen provider and to have earned the trust and relationship with the critical Malvern



CTC team, Lane Keyser, George Hockman, Steve Grzywacz and Mark Rehrer," said Bob Hafich, President of Sales and Administration at ESSCO. "They are an extremely professional group to work with and we were also fortunate to have the opportunity to work with Craig Tupper from Union Electric and the Electrical Engineer Joe Stillman with Sharpe Engineering, who were first-class as well. Working with people of this caliber is what made the project so successful."



## EGSA NEWS

Up the Ante! You Can't Play to Win, if You Aren't There! Sign up for a POWER-GEN International Booth in the EGSA Power Pavilion Today!

Join Us as POWER GEN International returns to Las Vegas from December 5 - 7, 2017. EGSA's On-Site Power Pavilion is the heart of biggest Power events of the Year!



There is strength in numbers and here's another source of great EGSA Member value too!

Each year, your Association purchases premium floor space from PGI show management and sells it to our Members! By purchasing the heart of the tradeshow floor, we also bring our members great value...prominent and cohesive location...no one has to guess where the On-Site Power exhibitors are, because we are on the red carpet!

With the move back to Las Vegas the show is sure to attract attendees that may not have attended the last show in Orlando. Buy your exhibit space from your Association!

We need your active participation. Reserve your space now to ensure the best available location in the On-Site Power Pavilion! If your company currently exhibits outside the pavilion, but you would like to move into the EGSA area for 2018, contact us.

Up the Ante! Word will spread fast.

Secure your booth today by contacting Liz Bustamante at *l.bustamante@egsa.org* or by calling (561) 750-5575 ext 206.

### Global Coverage Of The Power Generation Markets Industry News ... From Kilowatts To Megawatts



### EGSA NEWS

#### EGSA's Newest Committee, the Technical Oversight Committee, has hit the ground running! Join us on Sunday, March 19th in Kissimmee

While certain committee business is still being put together for 2017, the Technical Oversight Committee (TOC) wants to let everyone attending our 2017 Spring Conference know that if you are interested in joining them for their inaugural committee meeting



that you won't have much competition for scheduling!

That's right! The TOC is going to begin by meeting on the first day we arrive, Sunday, March 19th, from 3:00 pm until 4:00 pm. Unless you are a member of the EGSA Technician Certification Committee (which is a closed meeting that meets on Sunday of each Conference from 1:30 pm until 4:00 pm), you are free and clear to participate, just make sure you get to the Gaylord Palms Resort & Convention Center in time to participate in this afternoon meeting!

For more information, contact Brian Ponstein (MTU Onsite Energy, Co-Chair of the TOC) at *brian.ponstein@mtu-online.com*.

#### What is the Technical Oversight Committee? Glad you asked!

The TOC was formed to provide the EGSA industry with technical articles and videos on matters that affect the power generation industry, – with a target audience of policy makers, customers, and EGSA members. In their first meeting they will be reviewing Biodiesel topic and setting up a plan for the next few months for technical articles and videos.

#### 2017 EGSA Membership Renewals are currently underway. Make sure that your company does not miss out on our great member benefits. Renew today!

#### Membership Benefits at a Glance

#### Discounted fees for:

- EGSA Technician Certification Program
- Rowley Schools offering Continuing Education Units (CEUs)
- EGSA Conferences
- *Powerline* Magazine advertising
- EGSA On-Site Power Generation: A Comprehensive Guide to On-Site Power

Free job postings in our Job Bank, located on our Website and in *Powerline* Magazine.

Use of the EGSA logo on your company advertisements, website, stationery, etc.

Priority booking of your booth in the EGSA Pavilion at POWER-GEN International.

Free Listing in EGSA's Annual Buying Guide (distributed to Diesel Progress recipients, currently more than 34,000 readers!)

#### Web Links:

Your company information will appear on EGSA's website within the month that you join, and we will link to your website if the address is provided.

#### Networking Opportunities:

Make contacts with the "Who's Who" of the On-Site Power industry at EGSA events, including conferences, trade shows and receptions, as well as online at EGSA's Linkedin groups.

#### EGSA Bucks Program:

You can participate in EGSA's member-referral program: If a new member lists your name as a sponsor on their membership application, you will receive \$100 in "EGSA Bucks" to apply towards EGSA products including: registrations, reference books, membership renewal dues, etc.



# FIDELITY POWER SYSTEMS

Another in Our Series of EGSA Member Company Profiles

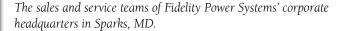
#### FIDELITY POWER SYSTEMS www.fidelityengineering.com

Fidelity Engineering Corporation was founded in 1945 at the dining room table of Clarence W. Hottel. Under Mr. Hottel's guidance, Fidelity became one of Baltimore's most successful corporations in the HVAC industry, introducing air conditioning, refrigeration and process cooling to the mid-Atlantic area. In 1980, having installed several emergency generators on various projects, he decided to diversify the business to include a distributorship with KOHLER Co., selling and servicing generator systems.

In the spring of 1982, Clarence Hottel decided to become more aggressive in the generator industry and brought Jim Slechta on board to run the Generator Division of the firm. Jim had a strong background in on-site power from his previous employer, where they designed, built and serviced complete generator systems. At the time, Jim was the only full-time employee, responsible for bidding, selling the equipment, shipping it to the jobsite and commissioning each unit sold.

In 1990, at the age of 82 Hottel retired from the business, so he sold the company to the Gould family. As the business continued to grow, our current Fidelity Engineering CEO, David Lanphar, was brought on board to lead the company. One of David's first orders of business was to rebrand the company and split off the Generator Division and the Mechanical Service Divisions into their own separate entities. So, in 2006, Fidelity Power Systems was formed as a subsidiary to Fidelity Engineering Company, along with Fidelity Mechanical Services.

Under the leadership of Jim Slechta, they have grown to become one of Kohler's largest distributors in the U.S. Fidelity Power Systems' headquarters is located just north of Baltimore, MD, and they have branch locations in Springfield, VA; Richmond, VA; Roanoke, VA; and Seaford, DE. They are staffed



by over 120 personnel, including 71 field service technicians. Fidelity has also added turnkey generator installations to its list of abilities and is able to perform generator replacements and design-build projects. Fidelity offers the full line of Kohler emergency standby generator sets, from an 8kW residential generator to a 4,000kW industrial generator set (that was recently announced by Kohler and will be available in late 2017). Fidelity also offers the full line of Kohler automatic transfer switches, as well as Kohler paralleling switchgear.

Like all distributors for Kohler, Fidelity Power Systems is responsible for a multi-state territory, specifically Maryland, Delaware, Virginia, several counties in West Virginia, and the District of Columbia. While this territory is not a large geographic area, it is one of the busiest territories in the country. Over the years, Fidelity Power Systems has supplied Kohler emergency standby power equipment for data centers, hospitals, healthcare centers and outpatient surgery centers, water treatment facilities, schools, universities, countless government facilities (federal, state, and local municipal), apartment buildings, condominium complexes, police stations and fire/EMS stations. Some of the more notable projects to date are the New Sibley Hospital in Washington, D.C., The UM Charles Regional Medical Center in Southern Maryland, numerous Smithsonian Institute Museums throughout Washington, D.C., including the new National Museum of African American History and Culture, the Natural History Museum, the Udvar-Hazy Air and Space Museum, the

#### MEMBER PROFILE: FIDELITY POWER SYSTEMS





Top Left: The leader of Fidelity Power Systems is President & Partner, Jim Slechta.

**Top Middle:** At the University of Maryland Charles Regional Medical Center, in La Plata, MD, the emergency standby power system shown here includes 3 Kohler Generator Sets that provide emergency standby power to all 3 wings of the hospital. The system also includes 14 new Kohler automatic transfer switches, and a 5000amp Kohler paralleling switchboard that monitors the load on the building, synchronizes the generator sets, and adds or sheds load to the system as necessary. This new system can be monitored through one HMI screen on the control section of the switchboard, which is located in the electrical room.

This new system replaced 3 aging standalone generator sets that were located throughout the hospital campus and that provided partial backup power to each of the three wings of the hospital.

**Top Right:** These 4 Kohler generator sets in an N+1 scenario provide emergency standby power to the entire Sibley Memorial Hospital. This system replaced three standalone generator sets that used to provide partial backup power to the hospital. The system also included 9 new Kohler automatic transfer switches and Kohler paralleling switchgear.

**Bottom:** Also located at the Sibley Memorial Hospital, the Kohler 6000amp paralleling switchgear ensures that the generator sets are synchronized and keeps track of minimum generator loading to meet Joint Commission reporting requirements.

Hirschhorn Gallery, the Baltimore Museum of Art and the National Museum of Health and Medicine. Fidelity Power Systems has also provided Kohler emergency standby power equipment for Discover Bank, NASA, the FBI, the Department of Defense, Fort Meade, the CIA, APG, Fort Belvoir, Fort Meyer, Andrews Air Force Base, several V.A. Hospitals, the National Zoo, Washington Nationals Baseball Stadium, and numerous embassies and chanceries.

In recent years, Fidelity Power Systems has increased its outreach to the engineering community. They have added a business development manager to aid the engineering community in the design and sizing of planned power generation systems, along with several project managers. All of this allows the sales staff to spend more time in front of customers, supporting their needs. This was necessary, with the increased complexity of the projects and the equipment providing backup power to critical facilities. They have also increased the number of large systems projects completed, with multiple generator sets being paralleled with Kohler paralleling switchgear. Such projects include waste water treatment plants, several data center projects, distribution warehouses, and hospitals.

Fidelity Power Systems is known for their world class service division. Fidelity's award-winning service team is staffed with factory-trained and authorized service technicians, who can work on any type of generator, regardless of the brand, size, or fuel type. The service department in Sparks, MD is manned by a staff of 25 people, consisting of a service manager, service dispatchers and service contract sales, as well as over 30 technicians. Between the offices in Oilville (Richmond) VA, Spring-field, and Seaford, there are 45 additional service technicians, as well as service dispatchers and service contract sales people. It was vital to add service locations in all corners of their territory, due to the number of generators now in the market place throughout the area and the need for timely service.

Fidelity Power Systems is a member of numerous professional organizations, including EGSA, IEEE, the Maryland Construction Network, CASHE, ASPE, the Building Congress and Exchange and 7x24.

Their parent company, Fidelity Engineering Corporation, prides itself on its community outreach, supporting numerous charitable organizations, including the Susan G. Komen Race for the Cure, the American Heart Association, the Believe in Tomorrow Children's Foundation, Associated Catholic Charities, the American Red Cross, the Helping Up Mission, the Fellowship of Christian Athletes, the U.S. Green Building Council, The Salvation Army, and the Tunnels to Towers Foundation.

Fidelity Power Systems strives every day to provide excellence in service and is committed to the safety of their employees and customers as they continue to grow and service the market. They look forward to the future and in embracing the new technologies and opportunities as they appear.

### NEW EGSA MEMBERS

MF=Manufacturer DD=Distributor/Dealer CI=Contractor/Integrator MR=Manufacturers Rep EM=Energy Management Co. AA=Trade Publication AB=Trade Association AC=Engineer AD=End-User AE=Service AG=Educational Institution AM=Military AR=Retiree AF=Student

Joshua Amaya ......AF Lowell, MA

Anthony JL Lima AE
Stockton, CA
Service technician in a generator installation, re-
pair and rebuild facility.

#### Budagher Generator Inc..... DD

Las Cruces, NM USA

Katie Budagher, President

Budagher Generator Inc sells Generac and Kohler generators as well as offers maintenance and repair for all brands of generators and transfer switches. Portable generator rentals and load bank services are available.

#### Centerline Mechanical ..... DD

Tucson, AZ USA

Todd Hobbs, Operations Manager Commercial/industrial power plants, energy centers, steam. hot water, and power generation equipment.

### DM Shaver, Inc. ..... DD Hannibal, NY USA

Daniel Shaver, President

As a dealer for Kohler Power Systems, Briggs & Stratton, and Generac, DM Shaver provides sales, service and installation of residential and commercial generator sets throughout the central and northern New York region.

#### ElectriCities of NC..... AB

Raleigh, NC USA Phil Bisesi, Supervisor, Residential Energy Services

Technical services to municipal electric utilities.

Ferma Corporation AC
Corona, CA USA
Ctore Welmone De Director ( Deciment Deciment

Steve Walraven, Dr. Director of Business Development

Site and building demolition.

#### 

Cam Yeow, Director of Sales Lat-Lon, a BSM Technologies Company, provides

vireless GPS tracking and monitoring solutions worldwide. Lat-Lon provides real-time information with unlimited access to data that can be integrated into existing software systems or viewed on the web. GPS units are customizable with options including Impact, Temperature, Camera and more.

#### Lawes Company.....Cl Shrewsbury, NJ USA Will Lawes, Owner Lawes Company was established in 1926 & is a 4th generation family business. We are a heating oil dealer who provides sales, service and instal-

oil dealer who provides sales, service and installation of heating and cooling equipment to residential customers. Lawes has been servicing and installing standby generators for 2 years.

### Brandan Mulligan.....AF Williamsport, PA

### Protective Power Systems & Controls Inc. DD Staatsburg, NY USA

John Patierno, President Service and sales of all power generation equipment including Generators, ATS's, Switchgear, DRUP's systems, Engines, Voltage Regulators, Generator Accessories, Ignitions, PLC's, HMI's, paralleling for gen to gen, gen to utility, prime power, standby, cogeneration as well as control upgrades for all of the above. Testing services: load banking, protective relays, IR scanning, meggering, commissioning, low/medium voltage, engineering services and many others. **Quest Power International, LLC ...... DD** Orlando, FL USA Patricia Arauz-Corrow, General Manager Distributor, exporter & importer of power generation equipment (diesel & gas generators for prime & standby power, ATS, wiring, etc.) for B2B, US Government and consumers.

#### Radnor Leasing Corporation . . . . . . . . AD

Dedham, MA USA Peter Vieira, President

Radnor Leasing owns and operates a 1750 kW standby Cummins generator.

#### Reliable Power Plus LLC ..... DD

Cedarville, NJ USA Kenneth Sharretts, Owner Kohler residential and commercial sales and service dealer. Generac and Yanmar Energy Systems sales and service dealer. We service all major brands.

#### Southeast Power Products LLC...... MR

St Augustine, FL USA Rick Hodgkins, Owner Rep for Bergari Solutions, Diesel Radiator Company

Super Steel LLC MF	
Milwaukee, WI USA	
Steve Zastrow, Account Manager	

Cory Wright	. AM
Columbus, GA	

### Replacement Voltage Regulators And Static Exciters For Electrical Generators And Synchronous Motors.





# Application for Membership ELECTRICAL GENERATING SYSTEMS ASSOCIATION

1650 South Dixie Highway, Suite 400, Boca Raton, FL 33432 • 561-750-5575 • FAX 561-395-8557 E-Mail: *e-mail@EGSA.org* • Website: *www.EGSA.org* 

Under the leadership of its Board of Directors and operating through its various committees and staff, EGSA strives to educate, provide networking opportunities and share relevant knowledge and trends with industry professionals including manufacturers, distributor/dealers, engineers, manufacturer representatives, contractor/integrators and others serving On-Site Power consumers.

	L ME	EMB	ERSHIP	Annual Dues	Initiation Fee	TOTAL DUE
	fc 1 2 3 4	or a Fu . They 2. They 3. They 4. They or co	<b>acturer Membership</b> Any individual, sole proprietor, partnership or corporation seeking membership must apply III Membership as a manufacturer if they meet one or more of the following criteria: y manufacture prime movers for power generation. y manufacture generators or other power conversion devices producing electricity. y manufacture switchgear or electrical control devices. y manufacture or assemble generator sets, UPS systems, solar power, hydropower, geothermal, or any other power production porversion system including related components or accessories for national or regional distribution. y are a wholly owned subsidiary of a firm that qualifies under rules one through four.	\$870	<del>\$200</del>	\$870
	d	lealer f	outor/Dealer Membership Any individual, sole proprietor, partnership or corporation actively engaged as a distributor or or products listed under Manufacturer Membership may apply for Full Membership as a Distributor/Dealer. If an organiza- alifies under Manufacturer Membership, it is not qualified under this section.	Wai	itiation Fe ved Throu 2/28/2017	Jgh
	ti N ti	or or E ractual ⁄Ianufa he resu	actor/Integrator Membership Any individual, sole proprietor, partnership or corporation actively engaged as a Contrac- quipment Integrator of products listed under Manufacturer Membership, not bound by brand, geographic territory or con- lly obligated as a Distributor/Dealer of a specific product. These firms typically purchase products from a Distributor/Dealer, acturer or Retailer, adding value through installation, product knowledge, relationships, unique services, etc., and then re-sell alting product to an end-user.	\$310	<del>\$100</del>	\$310
	tl	he rep	<b>acturer's Representative Membership</b> Any individual, sole proprietor, partnership or corporation actively engaged in resentation of products listed under Manufacturer Membership may apply for Full Membership as a Manufacturer's Repre- re. If an organization qualifies under Manufacturer Membership, it is not qualified under this section.			
	n	nanage	r <b>Management Company Membership</b> Any individual, sole proprietor, partnership or corporation engaged in energy ement, including Energy Service Companies (ESCOs), Independent Power Producers (IPPs), Integrators, Aggregators, and milar enterprises may apply for Full Membership as an Energy Management Company.	\$210	<del>\$100</del>	\$210
455	SOCI	ATE	MEMBERSHIP	Annual Dues	Initiation Fee	TOTAL DUE
ב	Asso	ciate	Regular Membership (Select Appropriate Category Below)	\$210	<del>\$100</del>	\$210
	Asso	ciate l	Full Membership Any individual, sole proprietor, academic institution, student, partnership or corporation meeting the			
_	requir ship,	rement inclue	is of Associate Regular Membership may apply for Full Membership at their option to <b>enjoy the privileges of Full Member</b> - <b>ding the rights to vote and to serve on EGSA's Board of Directors</b> . Initiation fees and annual dues will be assessed at non-manufacturer Full Member rates. ( <i>Select Appropriate Category Below</i> )	\$310	<del>\$100</del>	\$310
	requir <b>ship,</b> the ex	rement <b>inclu</b> e kisting	ts of Associate Regular Membership may apply for Full Membership at their option to <b>enjoy the privileges of Full Member</b> - ding the rights to vote and to serve on EGSA's Board of Directors. Initiation fees and annual dues will be assessed at	\$310	<del>\$100</del>	\$310
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<b>1.</b> Contact Information	
Company	
Address	
City	State/Province
Zip/Postal Code	Country
Phone	FAX
Official Representative	Title
Representative's E-Mail	Company's Web Address
How did you hear about EGSA?	Web site 🛯 <i>Powerline</i> magazine 🔲 Colleague 🔲 POWER-GEN 🗳 Other
Why are you joining EGSA? 🛛 Ce	ification Program 📮 CEU Program 📮 Power Schools 📮 Buying Guide Listing 📮 Other
<b>2.</b> Member Classification	Please use the worksheet on page one of this application to determine your membership type.
Full Memberships Manufacturer (MF) Distributor/Dealer (DD) Contractor/Integrator (CI) Manufacturer's Representat Energy Management Comp	Associate Memberships       (Select Appropriate Catagory)       Service (AE)         Regular Associate Membership       Trade Publication (AA)       Educational Institution (AG)         Full Associate Membership       Trade Association (AB)       Military (AM)         Engineer (AC)       Retiree (AR)         End User (AD)       Student (AF)
amount from the dues schedule Membersh	<ul> <li>ase fill in the appropriate TOTAL on page one.)</li> <li>Membership Dues \$</li> <li>De Plaque (optional)** \$55.00**</li> <li>Check # Amount Due \$</li> <li>Mastercard I Visa American Express</li> </ul>
	Sales Tax to ** items     \$       Card #     Exp. Date       or Continental US Residents.     Signature:
	e describe the nature of your business (50 words or less, NOT ALL CAPS). If you are a Manufacturer's Representative or nich manufacturers you represent and/or distribute for; if you are a student, please provide the name and location of your need graduation date:
Do you buy AND sell equipment	P 🗆 Yes 🗆 No 👘 Do you manufacture packaged equipment? 🗖 Yes 🗅 No
02 Control/Annunciator Systems     08       29 Education     28       30 Emission Control Equipment     03       04 Enclosures, Generator Set     05       05 Engines, Dissel or Gas     09       06 Engines, Gas Turbine     10	ingine Starters/Starting Aids illters, Lube Oil, Fuel or Air uel Cells       12Governors 13Heat Recovery Systems including meters, gauges, relays, sochators, or switches       18Relays, Protective or Synchronizing 9 Silencers/Exhaust Systems/Noise       22Trailers, Generator Set 23Transformers         14       Instruments and controls, including meters, gauges, relays, stems       14       Instruments and controls, including meters, gauges, relays, contactors, or switches       20 Solenoids       24 Uninterruptible Power Supplies         20 Solenoids       25 Violtage Regulators       25 Violtage Regulators       27 Wiring Devices or Receptacles         20 Solenoids       17 Radiator/Heat Exchangers       17 Radiator/Heat Exchangers       27 Wiring Devices or Receptacles         20 Solenoids       27 Wiring Devices or Receptacles       18 Relays, Protective or Synchronizing       27 Wiring Devices or Receptacles         21 Switchgear       17 Radiator/Heat Exchangers       Panels       27 Wiring Devices or Receptacles         21 Switchgear       17 Radiator/Heat Exchangers       9       9       9       9         21 Switchgear       19 Radiator/Heat Exchangers       10

**O**• **Sponsor(s)**: A"Sponsor" is an EGSA Member who interested you in filling out this application. It is not mandatory that you have a sponsor for the Board to act favorably on this application; however, if a Member recommended that you consider membership, we request that individual's name and company name for our records.

Sponsor Name

\_Company Name

# 7. Official Representative's Authorization

Signature 40 Date

### EGSA JOB BANK

#### **USA Midwest**

#### **Generator Technician**

Central Power Systems and Services, LLC Location: Liberty, MO 64068

CPSS has locations throughout MO, KS, and OK. The ideal candidate will have the willingness to be trained on all makes/models of MTU, Doosan, Detroit, and other equipment. We provide training, certifications, Medical, Dental and life insurance.

EGSA Certified Technicians Preferred.

To apply: www.cpower.com Application Deadline: 2017-03-31

#### **Data Center Power Generation Technician**

**Cummins Central Power** Location: Des Moines, IA

The PG Technician in this role will be dedicated to serving our largest Data Center customer in Des Moines, IA by performing multi-unit installations, planned maintenance and major repairs on high horse power generator sets. Travel will be minimal in the position. Cummins is an EEO/AA Employer

To apply: http://cummins-us.jobs/desmoines-ia/data-center-power-generationservice-technician-cummins-central-power/ B44370F97FCE4536896EAEA085E09513/job/

#### **USA Northeast**

#### Field Service Generator Technician Bigelow Electrical/ BigPower- since 1914

Location: Worcester, MA

Long Standing 100 year + company has a position available for the right Standby Generator Technician. Central Massachusetts region, responsibilities include scheduled maintenance of generators, troubleshooting, repair, good driving record, CORI compliant, must live within a 25 mile drive due to timely response. Factory training provided, a plus if presently certified.

EGSA Certified Technicians Preferred. To apply: scott@bigelowelec.com 508-852-5000,

Ken, Thane, or Dan

#### **Power Generation Technician**

Martin Energy Group Services LLC Location: Uxbridge MA

Seeking full-time technician to join the growing Martin team with a focus on support and maintenance of CHP cogen generator systems. Computer literate with electrical and mechanical aptitude. Good customer service with integrity. Range: Massachusetts and New England. Benefits. To apply: e-mail questions or resume to

mmartin@martinenergygroup.com

#### **Generator Field Technician**

South Shore Generator Ser., Inc. Location: E. Wareham, MA

Seeking F/T qualified Generator Technician - great opportunity in a growing & secure field. Candidates required to work outdoors;clean driving record; on call rotation; computer literate; read prints & schematics; electrical., mechanical, diesel & gas engine, ATS exp. preferred. Co. provides training, vehicle, cell phone, GPS & laptop. Co. offers competative wages, health ins., vaca/sick time, 401k,P/S, disability and more!

EGSA Certified Technicians Preferred.

To apply: http://www.ssgen.com/employment.html

#### EGSA Job Bank Guidelines

EGSA will advertise (free of charge) EGSA Member company job openings in the Job Bank. Free use of the Job Bank is strictly limited to companies advertising for positions available within their own firms. Companies who are not members of EGSA and third-party employment service firms who service our industry may utilize the Job Bank for a \$300 fee. Blind box ads using the EGSA Job Bank address are available upon request; company logos may be included for an additional fee. EGSA reserves the right to refuse any advertisement it deems inappropriate to the publication. To post an EGSA Job Bank ad (limited to approximately 50 words) please visit www.EGSA.org/ Careers.aspx.

#### **USA Southeast**

#### **Generator Technician**

Assurance Power Systems Location: Delray Beach, FL 33444

Repair and service all makes and models of generator sets. Troubleshoot generator components including alternators, wiring harnesses, safety devices, transfer switches, and battery systems. Compensation/Benefits: Highly Competitive Wages based on experienced with potential overtime. Sign On Bonus for qualified candidates. Company vehicle provided.

EGSA Certified Technicians Preferred. To apply: jobs@assurancepower.com

Application Deadline: 2017-12-31

#### Advanced Electrical Service Technician

Cummins

Location: Georgia, Florida, Tennessee, North Carolina or South Carolina

Our ASE Technician will work with customers as well as sales, service, factory, and vendors to perform complex systems start-ups, generator controls upgrades, networks and switchgear modifications. This person will also diagnose and execute complex repairs to generators and components at the customer's site. Cummins is an EEO/AA Employer.

EGSA Certified Technicians Preferred. To apply: https://cummins.taleo.net/enterprise/ enterprise/flex.jsf?lang=en#bhmDID=1066520;bhmPID =requisitionFile;requisitionKey=176669;hireTypeKey=1 ;isNewReq=false

#### **Field Power Generation Technician**

Cummins

Location: Savannah, GA This technician will perform planned maintenance and repairs on High-horsepower GenSets, Integrated Power Systems, and Power Command panels for generator customers. The ability to interpret electrical wiring diagrams and understand safety aspects of working with all AC voltages up to 600V, 3 phase is required. Cummins is an EEO/AA Employer.

To apply: http://cummins-us.jobs/ savannah-ga/field-power-gen-tech-levelll-cummins-power-south-savannah-ga/ DF861FDB90DC40A483FD642A12E7B144/job/

#### **Power Generation Field Technician**

**Cummins Power South** 

Location: Albany, Georgia This PG Technician will diagnose and repair generator set systems in a field environment and perform new product startups. This person must be able to interpret electrical wiring diagrams and understand safety aspects of working with all AC voltages up to 600V, 3 phase. Cummins is an EEO/ AA Employer.

To apply: http://cummins-us.jobs/albany-ga/ power-generation-field-technician-levell-cummins-power-south-albany-georgia/ CEC8264880BF4DA8AC73EF76CC89EC14/job/

#### Service Technician B

#### Nixon Power Services

Location: Lawrenceville, GA

Service Technician B is an intermediate-level technician position. The position has the technical understanding of generator repair and operation to perform simple repairs and preventative maintenance. The position reports to the Service Manager in the Service department and routinely interacts with customers both external and internal. To apply: Go to www.nixonpower.com to apply

#### Service Technician A

Nixon Power Services

Location: Lawrenceville, GA Service Technician A is an advanced-level technician position. The position has the technical understanding of generator repair and operation to perform major repairs and installations of generators and associated equipment. The position reports to the Service Manager in the Service department and routinely interacts with customers and various employees within the company.

EGSA Certified Technicians Preferred. To apply: Go to www.nixonpower.com to apply

#### Are You Short Staffed? Cost effective services without adding to your staff or overhead

- · Project management, supplier coordination, owner's representative
- · Commissioning, installation, removal and re-commissioning
- · Power generation equipment appraisal, purchasing or resale
- · Project experience to 50 MW in Asia, South America, Africa and Europe
- · Domestic and international travel on short notice
- Decades of experience in the on-site power industry
- Member EGSA We provide NDA's and the utmost confidentiality

Please respond to: J.Kellough@EGSA.org (Reference PLND16JB-1)

#### EGSA JOB BANK

#### **USA Southeast**

#### Switchgear System Service Manager

Nixon Power Services Location: Undecided

The Switchgear Systems Service Manager is a leadership position responsible for the establishing, developing and growing the new Switchgear Systems Service Business Unit within Nixon. Initially responsible for securing and executing switchgear service business in this space. As the unit matures, potentially become responsible for growth, training, sales and operations of the business unit.

**EGSA Certified Technicians Preferred**. *To apply: Go to www.nixonpower.com to apply* 

#### Aftermarket Service Manager

#### Nixon Power Services

Location: Nashville, TN

The Aftermarket Service Manager is a leadership position responsible for Service department's financial performance; departmental operations; warranty administration and execution. The position reports to the Aftermarket Operations Manager and regularly interacts with customers both internal and external.

EGSA Certified Technicians Preferred.

To apply: Go to www.nixonpower.com to apply

#### **Operations Manager, Major Accounts**

Nixon Power Services

Location: Lawrenceville, GA The Operations Manager, Major Accounts oversees all aspects of customer care for assigned major accounts, supervises major account coordinators, Interfaces with key major account customers. Provides excellent customer service to key major customers. The position is in the Integrated Solutions department and reports directly to the Aftermarket Service Manager.

To apply: Go to www.nixonpower.com to apply

#### Plant Operations & Maintenance Manager

Nixon Power Services Location: Lawrenceville, GA

The Nixon Energy Solutions (NES) Plant Operations and Maintenance Manager is responsible for the productive, proficient, profitable and professional management of the NES Operations and Maintenance (O&M) Contracts. Responsibilities include, but are not limited to, financial performance, site operational performance, resource planning and management, strategies and process, and customer satisfaction. Based in Lawrenceville, GA, the position reports directly to Nixon Energy Solutions Service Manager and works closely with various members of the Service department, both in the office and in the field.

#### EGSA Certified Technicians Preferred. To apply: www.nixonpower.com

#### Technical Team Leader

Nixon Power Services

Location: Lawrenceville, GA The role of this position is to plan, execute, and finalize maintenance projects according to strict deadlines and within budget. This includes acquiring resources and coordinating the efforts of team members and in some cases third party vendors, in order to deliver projects according to plan. The Customer Support Manager will define the project's objectives and oversee quality control throughout its life cycle. The CSM will also be responsible for tracking and driving field quality and engine performance issues to resolution within the Nixon Energy install base. This position interacts with customers both internal and external.

> **EGSA Certified Technicians Preferred.** *To apply: www.nixonpower.com*

#### Aftermarket Service Manager

Nixon Power Services

Location: Lawrenceville, GA The Aftermarket Service Manager is a leadership position responsible for Service department's financial performance; departmental operations; warranty administration and execution. The position reports to the Aftermarket Operations Manager and regularly interacts with customers both internal and external.

**EGSA Certified Technicians Preferred.** *To apply: Go to www.nixonpower.com to apply* 

#### Assistant Service Manager Nixon Power Services

Location: CHARLOTTE/North Carolina/USA The Assistant Service Manager is responsible for the daily operation of their assigned Service Center, including management of six to fifteen service department members. The Assistant Service Manager takes over the Service Manager's duties in that person's absence and will act as a project manager, as required, on large service projects. The position reports to the Service Manager in the Service department and routinely interacts with customers both internal and external.

EGSA Certified Technicians Preferred.

To apply: Apply at www.nixonpower.com

#### Plant Operations & Maintenance Operator

#### Nixon Power Services

Location: LAWRENCEVILLE/ GA/ USA Responsible for the productive, proficient, professional and safe operation of a NES (O&M) Plant. This operator possess a high level of knowledge, dedication and work ethic required to quickly learn and operate the complete GE Jenbacher engine including all balance of plant equipment and structures. Position reports to NES Plant O&M Manager and works closely with various members.

To apply: www.nixonpower.com

#### **USA Southwest**

#### **Generator Technician** Central Power Systems and Services, LLC

Location: Las Vegas, NV

CPSS is looking for an electrical Generator Technician to help support our Customer in Vegas. The ideal candidate will have strong electrical knowledge with appropriate hand tools. We provide training, certifications, Medical, Dental and life insurance.

> **EGSA Certified Technicians Preferred**. *To apply: www.cpower.com*

Application Deadline: 2017-03-31

#### Manufacturer's Rep Seeking Principals

Leading Mid-South manufacturer's rep is seeking additional product lines. We have decades of experience in all aspects of the onsite power generation industry. We are interested in adding quality complementary manufacturers to our line of superior products serving the industry. Our record of outstanding success can help you achieve your sales and market share goals. Please respond if you have an area where you desire additional sales and market share.

> Please respond to: J.Kellough@EGSA.org (Reference PLMJ13JB-1)

### **INDUSTRY NEWS**

#### Babcock & Wilcox Enterprises, Inc. has Acquired Universal Acoustic & Emission Technologies, Inc. (UniversalAET)

Babcock & Wilcox Enterprises, Inc. (B&W) has acquired Universal Acoustic & Emission Technologies, Inc. (UniversalAET), a Wisconsin-based provider of custom-engineered acoustic, emission and filtration solutions, effective today.

UniversalAET is a bolt-on acquisition for B&W MEGTEC and will be included in B&W's Industrial operating segment. The new company will be named Babcock & Wilcox Universal and operate under the trade name B&W Universal.

UniversalAET provides custom-engineered acoustic, emission and filtration solutions to the natural gas power generation, mid-stream natural gas pipeline, locomotive and general industrial end-markets.

UniversalAET employs approximately 460 people, mainly in the U.S. and Mexico. UniversalAET's product offering includes gas turbine inlet and exhaust systems, custom silencers, filters and custom enclosures.

"UniversalAET expands our industrial environmental portfolio into noise abatement, introduces us to new end markets and customers, and gives us another avenue to serve natural gas power generation customers," said B&rW Chairman and Chief Executive Officer E. James Ferland. "This acquisition aligns with our strategy to grow our industrial market exposure and continue to increase our non-coal revenue base."

The deal is based on an enterprise value of \$55 million, subject to certain adjustments. UniversalAET is expected to generate approximately \$80 million of annual revenue and to be accretive in 2017.

Please visit *www.babcock.com* for more information.

#### Kohler Co. Announces that its Power Group has Acquired Clarke Energy Ltd., Liverpool, England

Kohler Co. proudly announces that its Power Group has acquired Clarke Energy Ltd., Liverpool, England. Clarke Energy is a multinational specialist in the engineering, construction, installation and maintenance of engine-based power plants and is an authorized distributor of GE's reciprocating engines in 19 countries worldwide.

"Clarke Energy's end-to-end capabilities are very highly regarded around the world and the company's products and services are an excellent fit within our existing power systems business," said David Kohler, President and CEO of Kohler Co. "We're excited about this acquisition because it adds the distribution of large gaseous generators – viewed as a clean power source – to our product portfolio. We believe Clarke Energy's prime and continuous gaseous solutions are an ideal complement to our existing diesel generator offering for standby applications."

Please visit *www.kohlerpower.com* for more information.

#### Central Power Systems Welcomes Steve Besore as VP – Off-Highway Business Development

Arizona native, Steve Besore, has joined Central Power Systems and Services (CPSS) as Vice President – Off-Highway Business Development. Steve will be



based in Arizona but plans to travel extensively focusing on developing business relationships for CPSS's Off-Highway Division.

Steve retired from MTU after 27 years. Prior to MTU, he was with Perkins Engines for 7 years and worked 2 years for Total Equipment and Service.

For several years now, Steve has known and worked with CPSS and is excited about the opportunity to join the company under the new ownership of Robin Roberts.

Steve's career goals include: Adding value to Central Power by developing and maintaining relationships in the Off-Highway Division, focusing on excellent customer service.

Please visit *www.cpower.com* for more information.





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