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EGSA Fall Conference Recap

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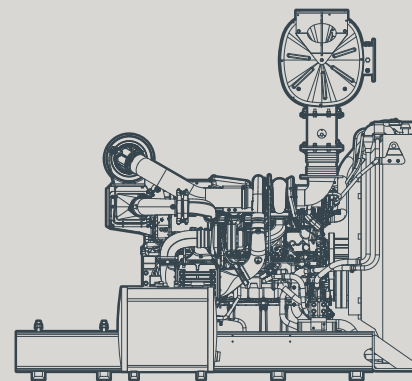


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Conferences

EGSA 2022 Spring Conference

March 6-8, 2022; Caesars Palace, Las Vegas, NV

EGSA's Annual Spring Conferences feature educational sessions on a broad range of issues impacting the On-Site Power Industry. More information is available at EGSA.org.

EGSA 2022 Fall Conference

September 11-13, 2022; Hyatt Regency Minneapolis
Minneapolis, MN

EGSA's Annual Fall Conference features educational sessions on a broad range of issues impacting the On-Site Power Industry. More information is available at EGSA.org.

Industry Trade Shows

POWERGEN International 2022

January 26-28; Dallas, TX

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Kurtiss E. Summers (Kurt)
2020/2021
EGSA Board Chair
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Message from the EGSA Chair

It was great to see so many attend our Fall Conference in Orlando, Florida. I appreciate those who shared educational content during our breakout sessions, including:

- **Microgrids 101:** Combining Multiple Power Sources for Maximum Efficiency and Uptime
- **Microgrids 201:** Integrating Renewables and Battery Storage into Your Power Solutions
- **Microgrids 301:** Tying Multiple Power Systems Together with Intelligent Controls
- **Technician Retention Creating a Pipeline for Technicians:** A guide to Partnering With Your Local Community College & Tech Schools
- **Microgrid Case Studies:** Lessons Learned From Two Operating Microgrids

The networking we enjoyed with old and new friends was a reminder of this important core value. While there remains strong support from veteran members, we also met first timers who were enthusiastic and vocal in their support. Thanks to each of you for bringing your best to EGSA and our industry! The opportunity for growth within our industry remains incredible!

In this issue you'll find a complete recap of our Fall Conference in Orlando. Other interesting content you'll find in this Issue:

- **White Paper:** Design Considerations for Generator Set Mounted Paralleling Breakers
- **Case Study:** Mohawk Industries - Dal-Tile
- **EGSA Certified Tech Update:** EGSA Certified Techs Across the Country and Around the World
- **Meet Your EGSA Officer:** Justin McMahon.
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PowerGen 2022

The EGSA Pavilion is nearly full so if you plan to exhibit, you should act now!

I'd like to thank our Powerline advertisers for their investment. Please take time to contact them and support your fellow EGSA Members by purchasing their products and services!

What a pleasure and privilege it's been for me to serve the EGSA membership for these nearly two years as Board Chair! The Board of Directors have worked hard to overcome significant challenges and to position our Association for success. I am proud of the work we've done to advance the Association under our CEO's leadership and especially grateful for the support from so many of you. Thank you! In these closing weeks of 2021 we'll be crafting the 2022 strategic plan and budget, with a commitment to bringing increased membership value while strengthening EGSA's influence and its financial position.

Thank you for your continued support! Looking forward to a successful 2022!

Kurt Summers
Board Chair ■

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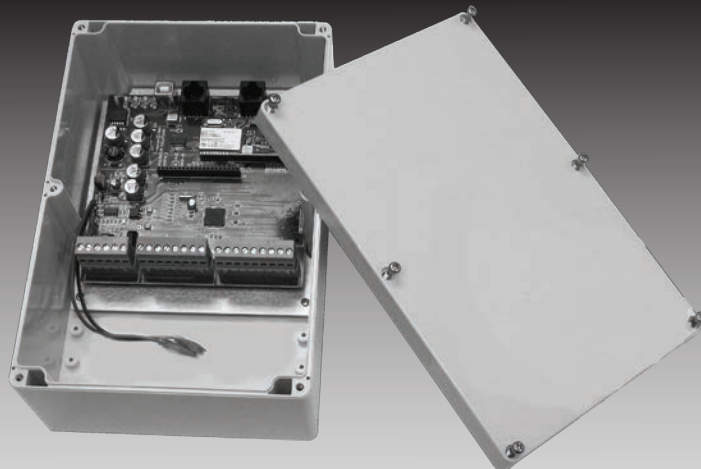
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Mir Mustafa, JD
EGSA CEO
m.mustafa@egsa.org

Message from the EGSA CEO

As you the year draws to a close, and we pass through Veteran's Day, Thanksgiving, and the holiday season, like many of you I find myself reflecting upon the past and looking forward to a new year and a new EGSA. I am grateful for our Veterans, active-duty military, Reserve, and National Guard members who serve our country with honor and distinction, and I am grateful for our members who work tirelessly every day to power our homes and businesses while enhancing our nation's security and resiliency. Thank you for your EGSA membership and for your commitment to advancing our industry. I am grateful for the EGSA staff, for my family, and for the EGSA family.

I had the pleasure of meeting many of you at our Spring and Fall Conferences. Thank you for attending under difficult circumstances. I'm happy to report that both conferences were a huge success and that thanks to everyone's adherence to protocols there were no reported cases of COVID-19 at either conference. I met many first-time attendees who shared with me how pleased they were by the warm welcome they received from long-time EGSA members. Many long-time members shared with me their excitement at the changes they see taking place at EGSA.

Associations like EGSA help make our country stronger. According to the IRS, there are over 60,000 trade and professional societies, and over 1.25 million philanthropic organizations in America. Together they employ over 1 million people and have a payroll of over \$50 billion.

Trade associations and professional societies generate over \$100 billion in annual revenues, and nonprofit organizations as a whole are responsible for over 5% of our nation's GDP. Associations provide post-secondary education and job skills training, enhance safety, develop industry standards, provide certifications, drive innovation, advocate on behalf of their industries in front of law and policy makers, and step up when natural disasters strike, or national crises emerge. (From ASAE's the Power of A)

2022 will mark the formal beginning of a new chapter for EGSA and for our industry. The EGSA Board, staff, and I are hard at work creating opportunities for greater membership value. We are laying the foundation for expanded educational offerings, new technical training, a new advocacy initiative, more networking opportunities, and new and exciting experiences for our members. We know that together with you we can take our industry to new heights and chart a course for a new future for our industry and our association.

In closing, I hope to see many of you at POW-ERGEN in Dallas, TX in January, and especially at the EGSA Spring Conference in Las Vegas, NV, in March. In the meantime, as always, please feel free to share your ideas with me about how EGSA and I can be of greater service to you.

Happy Holidays!
Mir M. Mustafa, JD
Chief Executive Officer
EGSA ■

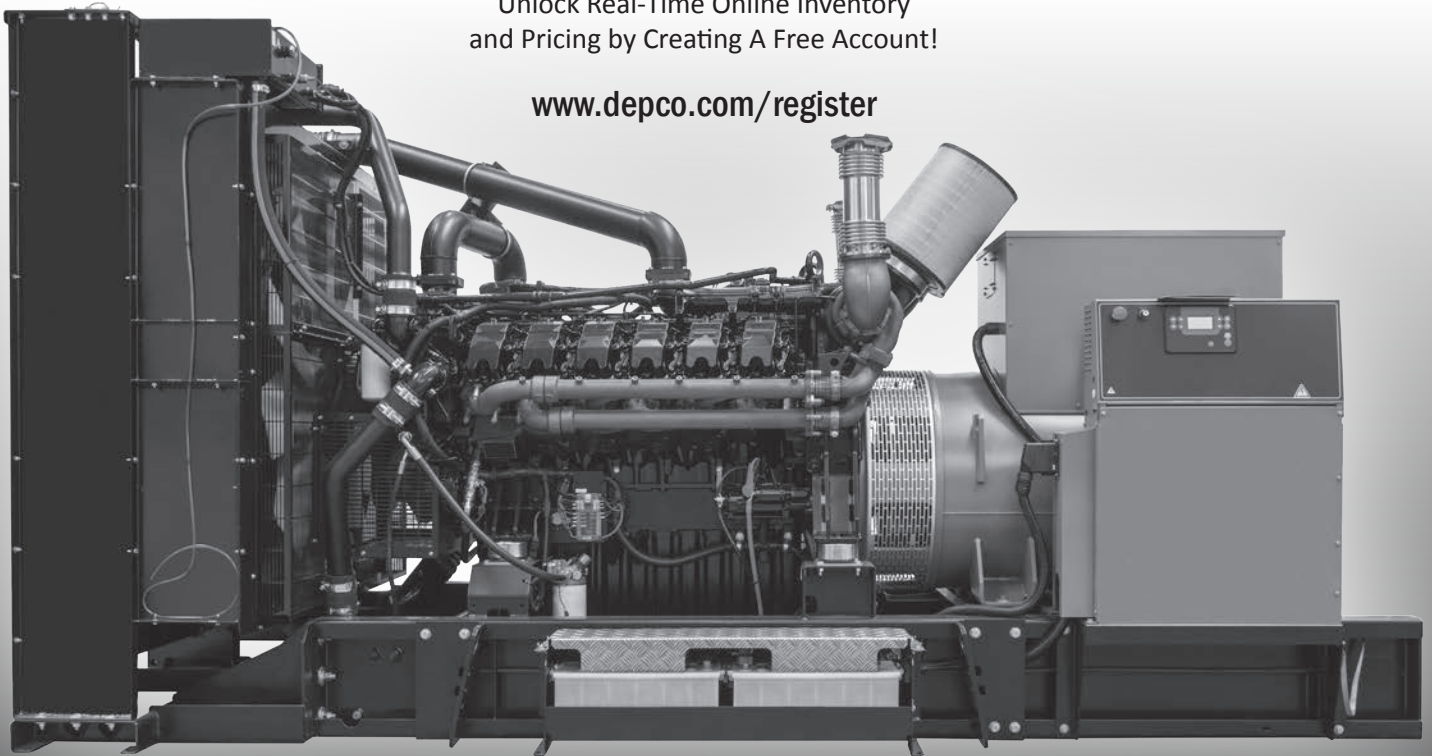
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Nathan Harris
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Training and Tribal Knowledge

Let me tell you about a scenario and let's see if you have dealt with this at your company. A Technician is at a job site. He or she is having a heck of a time figuring out what is wrong. After some basic troubleshooting, the technician calls a more experienced tech to help figure out the problem. The more experienced technician is on vacation or sick or for whatever reason just isn't answering the call. Now we have a problem that is going unfixed because of one single communication hiccup. So, who is to blame? The experienced technician who didn't answer the call? Nope. The junior technician who couldn't figure out the issue? Nope. The culprit in this scenario is the business' internal system. A system that relies too heavily on Tribal Knowledge.

Tribal knowledge occurs when experienced individuals have knowledge in their heads that is not documented or saved anywhere else in the company. This could be as simple as daily processes or more advanced concepts specifically about individual jobs, gear, or customers. One thing that hides a company's tribal knowledge issue is proximity. Prior to the pandemic, we used to all go into work and were able to discuss everything face to face. In 2020, most of us changed our way of operating by eliminating proximity to each other. Less technicians on job sites, working remotely, staggering schedules were all policies put in place to keep each other safe and distant. However, this highlighted the reliance on key individuals' tribal knowledge. Suddenly Steve could not just drop into Nancy's office to ask for help. Dave didn't have Neil with him at the job site when a simple load banking job turned into a full-blown troubleshooting nightmare. The veil was lifted last year, and some of us realized how much we rely on tribal knowledge in our everyday businesses.

Fixing the Issue

Step 1: Identify people who have the knowledge in their head. These are usually the most experienced and tenured members of your team. If someone is your go-to resource on a certain process or issue, that is exactly who you should be going to.

Step 2: Gathering the knowledge. This is the part of the process that requires dedicated resources. Assign someone to sit down with your experienced employees to gather this knowledge. This could be someone from your training team, someone from HR, or even a manager. You may run into individuals who are wary of sharing their knowledge. Being the only person who knows something does add a sense of job security. Be sure to get buy in from these experienced employees before scaring anyone into thinking they are being replaced.

Step 3: Documentation. Once you have collected the knowledge, lean on your training team to create resources for everyone to access. Some examples of knowledge resources can be Job Aides, Videos, Case Studies, Process Diagrams, Checklists, Online Courses, Discussion Boards, and Formal Trainings. These resources can be kept as paper files, but your best option would be creating an online portal that houses everything in one location.

An interesting idea that I see getting more traction is the use of QR Codes. Over the past two years we have all gotten used to using QR Codes to pull up menus at restaurants and other hand-held documents that were moved online. Some companies have now started to use QR Codes to pull up job aides, checklists, and videos on the employees' phones. Picture a technician pulling up to a job site, pointing a phone at a QR Code located on the gear and being routed to a web page with extra information about the job site, previous issues, or even a step-by-step guide of the job they should complete.

Capturing, gathering, and documenting all of this tribal knowledge is formally known as knowledge management. Knowledge management has become a crucial part of many industries because the United States is going into its second year of "The Great Retirement". The workforce is losing a large percentage of Baby Boomers (also known as your most experienced employees) to retirement. There are companies in place that will help with knowledge management, but a lot of this can be done in house by your training team.

If you have more questions about Knowledge Management and how to get started, please contact me at n.harris@egsa.org. ■

Design Considerations for Generator Set Mounted Paralleling Breakers

By: Hassan Obeid, Application Group Cummins Power Generation

Cummins Power Systems has been delivering simple paralleling solutions since the introduction of PowerCommand® digital paralleling in the early 1990s. The typical paralleling system included generator set paralleling breakers commonly located in a switchgear line-up remote from the generator sets. Some markets are now driving for an option to mount the generator set paralleling breaker on the generator set itself. There are challenges associated with this type of design. The objective of this paper is to outline and address these challenges in an effort to provide an understanding of how to apply the advantages of this design and still maintain design integrity and system reliability.

Paralleling of generator sets is enabled by using electrically operated circuit breakers which are typically mounted in switchgear. Switchgear is defined as a metal-enclosed structure which contains bus bars, insulating material, connecting means, either stationary or drawout, manually or electrically operated circuit breakers in individual metal compartments, *Exhibit-01*. The switchgear may also contain controls, instruments, metering and protective equipment. Traditionally, the switchgear also included all discrete components needed for paralleling generator sets. Components such as speed governors, voltage regulators, reactive and real power load share controls, fuel ramping controls and protection for reverse power (anti-motoring) and loss of field (under excitation).



Exhibit-01:
Paralleling switchgear

To improve the overall power system reliability, some OEMs such as Cummins design their paralleling scheme using what is called distributed logic architecture. Cummins accomplishes this type of architecture with PowerCommand Control, which is an autonomous microprocessor-based control for protection and paralleling functions.

Therefore, the paralleling scheme is redundant on every generator set. In certain applications, the paralleling breaker can be mounted on the generator set, *Exhibit-02*, thereby eliminating the need for the switchgear described above. The physical paralleling point in this situation can be either a collector bus or a switchboard, *Exhibit-03*.

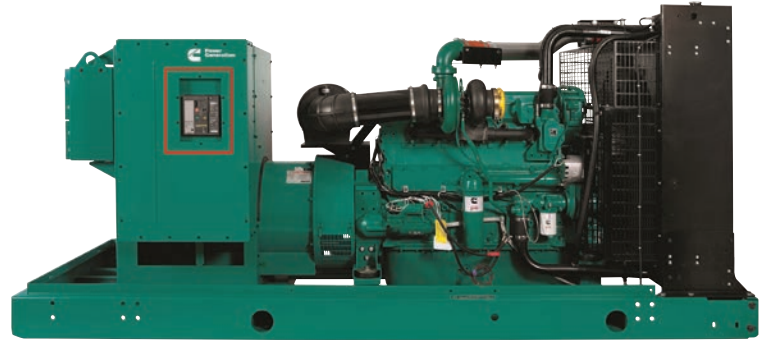


Exhibit-02: Generator set mounted paralleling breaker



Exhibit-03: Collector bus

The point of common connection of paralleled generator sets with set-mounted paralleling breakers is either at a distribution board or a collector bus, as opposed to traditional paralleling, where it takes place in the paralleling switchgear. *Exhibit-04* shows a systems configuration with generator set-mounted paralleling breakers.

In this example, two generator sets with set mounted paralleling breakers are connected to a distribution board feeding downstream loads through two transfer switches. *Exhibit-05* shows a transfer-pair application with single generator set/single utility connected to a collector bus feeding downstream loads. The Cummins PowerCommand Control has the capability to control the utility main breaker and also has built-in protection to isolate the generator set in the event of a fault.

Design Considerations for a Generator Set Mounted Paralleling Breaker

In paralleling applications, the system requirements, overall physical layout, size and one-line configuration all influence the switchgear design. Also, there are rules and guidelines which are outlined in the NEC, UL and NFPA that need to be considered, as well as the Authority Having Jurisdiction (AHJ), when designing a paralleling system and in particular as it relates to the common point of connection of the paralleled sources. The following are some design considerations associated with paralleling and the common point of connection:

- a. **Maximum Available Fault Current** – The point of common connection must withstand the physical and thermal stresses caused by fault currents from all sources. The power cables between the generator sets and the point of common connection must be braced to handle fault currents.

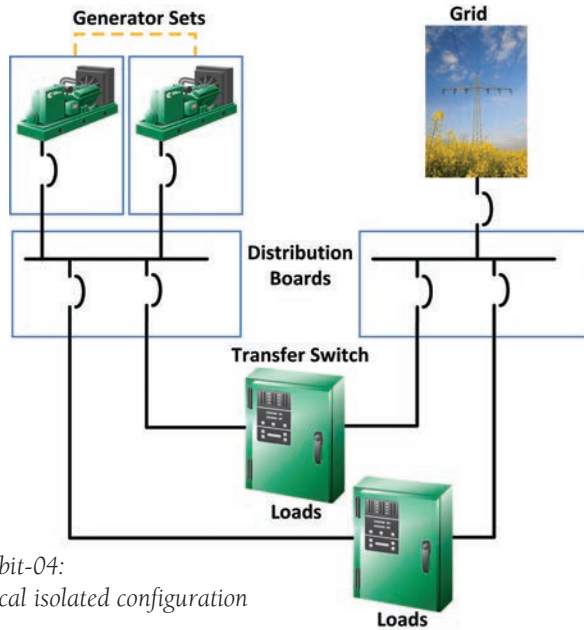


Exhibit-04:
Typical isolated configuration

b. Load Flow Analysis – The ampacity of the point of common connection must handle the current contribution from all generator sets.

c. Ground Fault – Isolate and properly detect a ground fault without causing nuisance tripping; the neutral and ground are bonded in one place in four-wire systems.

d. Generator Set Isolation – Concurrently maintain generator sets and isolate faults.

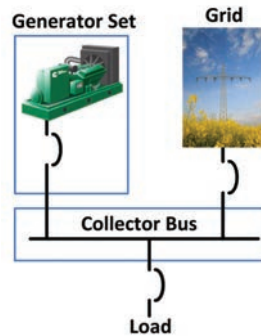


Exhibit-05: Typical infinite bus transfer-pair system configuration

1. Maximum available fault current:

An essential factor in paralleling system design is the maximum available fault current (I_{mafc}), peak and RMS. I_{mafc} is the sum of the available fault current from all generator sets (I_{afc}), motor loads (I_{mlfc}) and utility distribution transformers (I_{utfc}) that can be simultaneously connected to the system. The value of I_{mafc} is used to determine the physical construction and mechanical bracing required to safely sustain a fault at that level without danger of mechanical or electrical failure.

When a short circuit occurs in a power distribution system, very high levels of current will be drawn to the fault. These high magnitude currents rise quickly and develop strong magnetic fields which tend to force apart bus bars and power cables. If the electrical distribution equipment is not properly designed and installed, the bus structure or other power conductors can mechanically fail, causing a catastrophic failure of the power system.

It is critical that the system designer verifies the level of available fault current in the system, and specifies equipment that will be suitable for the application.

All of the supply side (utility or generator set) circuit breakers in the paralleling system require an interrupt rating that is $\geq I_{mafc}$.

$$I_{mafc} = \text{Maximum Available Fault Current} = I_{afc1} + I_{afc2} + \dots + I_{mlfc1} + I_{mlfc2} + \dots + I_{utfc1} + I_{utfc2} + \dots$$

$$I_{mafc} = \text{Generator Set Available Fault Current} = (kW * 1,000) / (\sqrt{3} * V * p.f. * X''_d)$$

Where:

kW: kilowatt output rating of the generator set
p.f.: generator set rated power factor

V: generator set rated output voltage

X''_d : alternator per unit subtransient reactance based on the generator set rating

I_{mlfc} = Motor Load Fault Current \approx Locked Rotor Starting Current

I_{utfc} = Utility Fault Current \approx transformer steady state rating divided by the transformer impedance

The maximum available fault current, I_{mafc} , must be less than or equal to the equipment bracing level design. In the event of a fault, the power cables must withstand the fault current thermal effects and might move or jump due to the high levels of magnetic forces. Therefore, the system design engineer should take into account the physical bracing of the power cables and apply appropriate strain reliefs. Also, the capacity and temp rise of the power cable are of high importance for the same reasons. And the impedance of the cables should also be considered in the full evaluation of the system. For example, if there are multiple power sources connected together and a fault takes place, the lugs and power cables must be able to withstand all the available fault current.

See Exhibit-06, which shows a fault in the power cables between generator set 1 and the distribution board. The cable and lugs at point 'A' must withstand the fault current contributions from the two motors and generator sets 2 and 3. The paralleling circuit breaker must have the proper interrupt rating to open the circuit under a fault without being damaged or causing an arc flash.

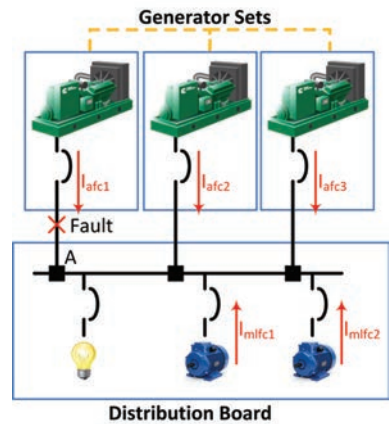


Exhibit-06: System fault

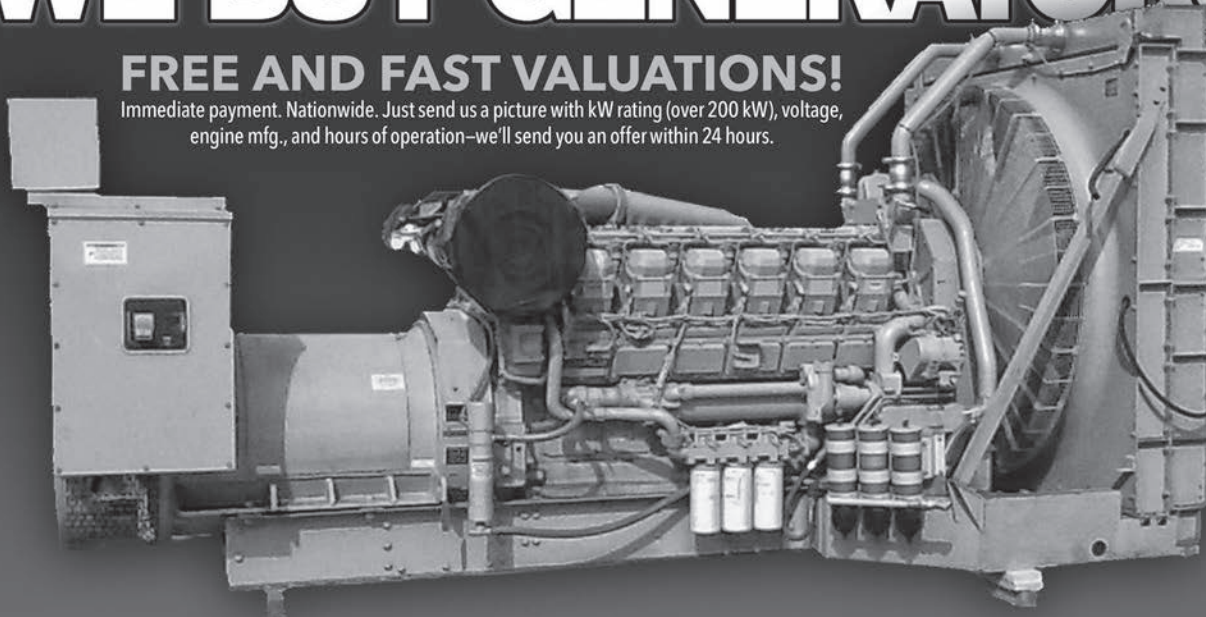
2. Load flow analysis:

The system design engineer needs to perform a system load flow analysis, which can be done by knowing the generator set size and quantity, calculating the generator supply current (I_{gsc}), and total supply current (I_{tsc}). Also, the maximum available fault current as described in the previous section should be taken into consideration. I_{gsc} is used to determine the paralleling circuit breaker frame size and trip level. Improper design can jeopardize the system reliability and integrity.

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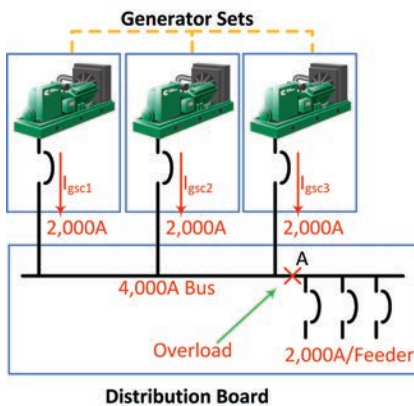


Exhibit-07: Exceeding bus capacity

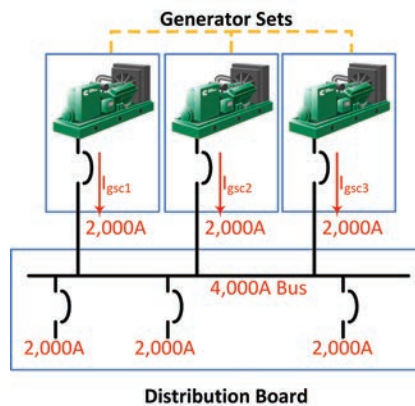


Exhibit-08: Re-configuring the bus

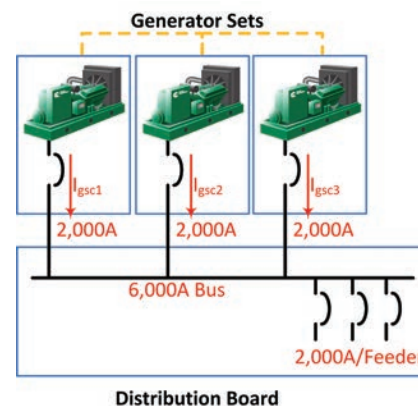


Exhibit-09: Using a 6,000-amp bus

$$I_{gsc} = \text{Generator Supply Current} = kW / (\sqrt{3} * V * p.f.)$$

$$I_{tgsc} = \text{Total Generator Supply Current} = I_{gsc1} + I_{gsc2} + I_{gsc3} + \dots + I_{gscn}$$

If the total supply current of the generators is greater than the paralleling bus ampacity, then the loads can be spread out along the paralleling distribution panel to overcome this issue. The current flow at any point on the bus cannot exceed the continuous rating of the system main bus selected. *Exhibit-07* shows that the capacity of the bus is exceeded at point 'A', since the contribution from all three generator sets is 6,000 amps. By applying load flow analysis and reconfiguring the bus, *Exhibit-08*, the continuous rating of the bus is no longer exceeded. Another way to overcome this challenge is to use a 6,000-amp distribution board or collector bus, *Exhibit-09*.

3. Grounding:

For optimum continuity of power for critical loads and for the safety of personnel, careful consideration of the grounding arrangements of generator sets used in emergency and standby power systems is essential. Specific considerations for emergency and standby systems include selection of a system grounding method for the generators, requirements for indication only of a ground fault on the generator, and the methods used in transfer equipment for switching the neutral pole.

The National Electric Code (NEC) 2014-230.95 requires Ground Fault Protection (GFP) at the service disconnect (utility breaker) for systems with: solidly grounded wye, more than 150 volts to ground (277/480 or 347/600VAC) and over current device rating of 1,000A or more. Ground Fault Indication (GFI), not protection, is required at the emergency source (NEC 700.6 (D)).

Adequate equipment and system grounding are necessary for creating an effective path for ground fault current to return to the source. One of the aspects for properly detecting ground fault current is to appropriately select and place current transformers (CTs) in a power system. Detecting ground current can be done using the residual method, zero-sequence or source ground return method. The source ground return method is typically what is used in paralleled systems where CTs must be placed on the neutral to ground bond. In four-wire systems, the bonding takes place in the distribution panel/collector bus, *Exhibit-10*. In

three-wire systems, the neutrals can be bonded at the generator sets, given the generator sets are identical. Neutrals of dissimilar generator sets should not be interconnected to prevent circulating currents. The system designer needs to be aware of the space constraints when the paralleling gear is a riser collection bus or a small switchboard and all of CT wires need to be possibly brought back to the paralleling breaker trip units.

Ground fault schemes require further evaluation when interfacing a generator set mounted circuit breaker with another switchboard that includes generator set(s), a utility, or other alternative energy source connection.

4. Generator set isolation:

Considerations should be given to generator set isolation for maintenance. To perform maintenance on a generator set, there must be means to individually disconnect each generator from the paralleling distribution bus. This can be accomplished at the paralleling switchboard by using fused disconnects. It can also be accomplished by using the generator set mounted paralleling breaker. However, if there are no disconnects at the distribution board, the load side of the breaker will be energized if other generator sets are online. In this case, performing maintenance on an individual generator set requires taking all sets offline.

This reduces reliability because the system is no longer concurrently maintainable. Refer to *Exhibit-11*.

Another important factor to note is when a downstream disconnect switch is used, without proper design and protection

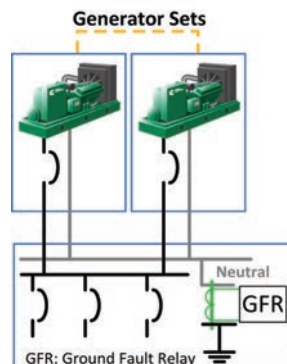


Exhibit-10: Four-wire system

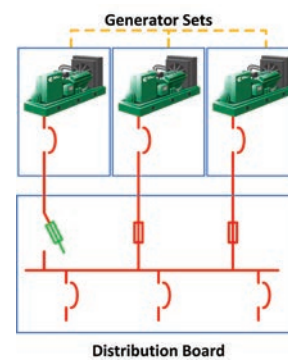


Exhibit-11: Fused disconnects

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there is a high risk factor of closing out of phase if an operator opens the disconnect switch and then closes it again while the bus is energized while the generator set is running; see *Exhibit-11*. An interlocking scheme between the paralleling breaker and its respective disconnect switch can be employed, which may prevent this type of occurrence.

Furthermore, isolation at the point of common connection improves reliability by preventing that connection from being a single point of failure. Without isolation, the occurrence of a cable fault between any generator set and the point of common connection will result in all generator sets disconnecting and shutting down. Isolation for each unit at the point of common connection will isolate the fault from the other generator sets and allow them to continue to supply power to the loads.

Additional methods for point of common connection

Utilizing the lugs on an ATS as a paralleling point, *Exhibit-12*, or daisy-chain the power cables from one generator set to another and then go to a collector bus or switchboard. *Exhibit-13* shows some additional options. However, achieving generator set isolation with these methods as shown in *Exhibits-12 and 13*, will be challenging. Other design considerations noted above, e.g., load flow analysis, maximum available fault current and physical bracing will need to be addressed as well.

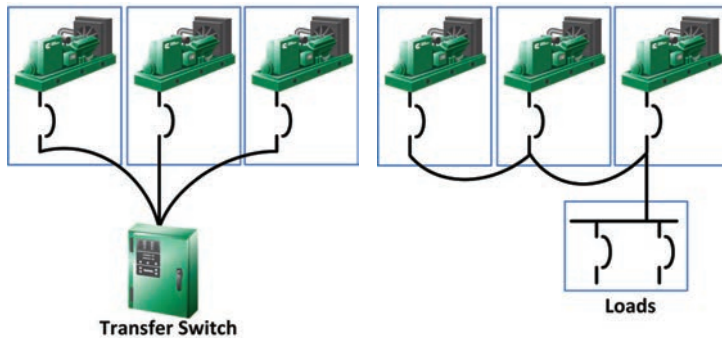


Exhibit-12: Transfer switch as a paralleling point

Exhibit-13: Daisy-chaining power cables

Conclusion

Paralleling with generator set mounted paralleling breakers can be used in a variety of applications such as oil and gas, mining, commercial and municipal buildings, and healthcare clinics. This type of paralleling equipment may offer multiple attractive advantages, such as cost-reduction, smaller footprint, and ease of wiring and integration. However, the apparent advantages should be viewed alongside the design challenges and carefully considered to ensure maximum system reliability and adequate design. ■

About the Author

Hassan Obeid is a Global Technical Advisor for Systems and Controls – Critical Protection at Cummins Power Generation focusing on technical vision, business strategy, and solving a wide range of complex problems. Hassan has been with Cummins since 2007 in a variety of roles: power systems design engineering, project engineering and application engineering.



Hassan has designed power systems involving switchgear, controls, microgrids, paralleling, transfer switches, generator sets and digital solutions. He has developed and conducted numerous technical power seminars to consultant engineers across the globe on several topics and products involving paralleling, grounding, power systems and controls. Hassan received his bachelor’s degree in Computer Science and master’s degree in Electrical Engineering from Minnesota State University, Mankato.



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Please visit egsa.org/Certification to learn more about EGSA Technician Certification. ■

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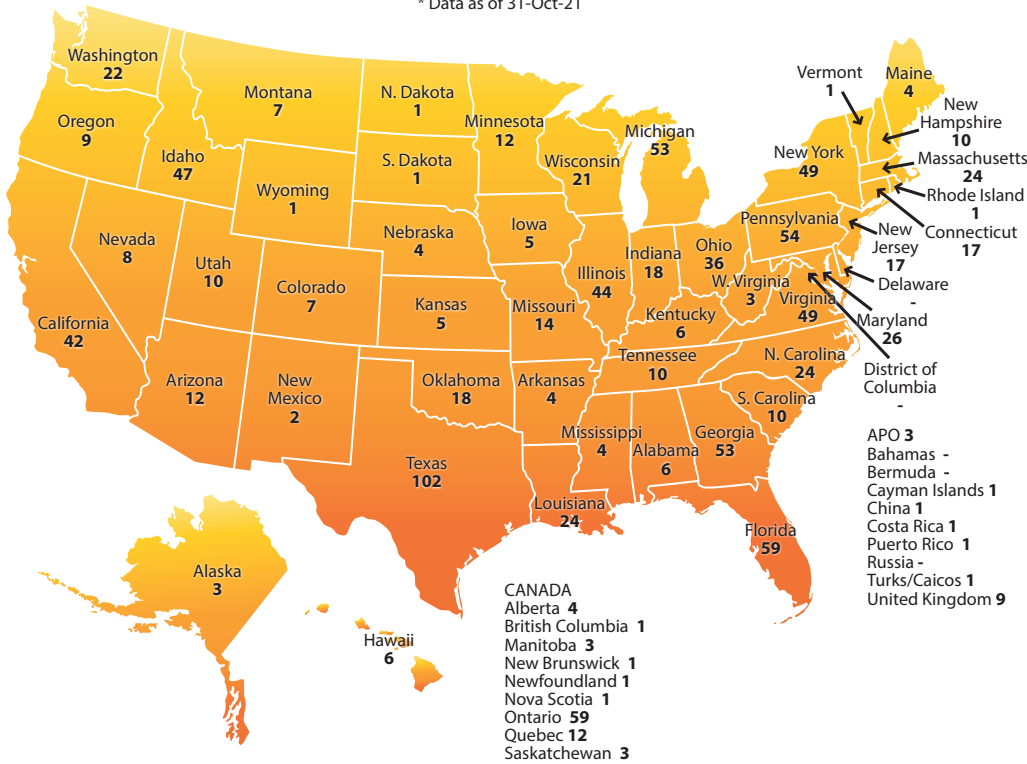
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6U 170 - 270 kW 9.8L	6W 250 - 382 kW 15.7L	HHV1 Natural Gas / Propane NG 78.4 HP (58.5 kW) @ 1800 RPM 82.5 HP (61.5 kW) @ 1800 RPM 79.8 HP (59.5 kW) @ 2200 RPM 56.3 HP (41.9 kW) @ 2200 RPM 4.6 L 4.6 L		

Technologically

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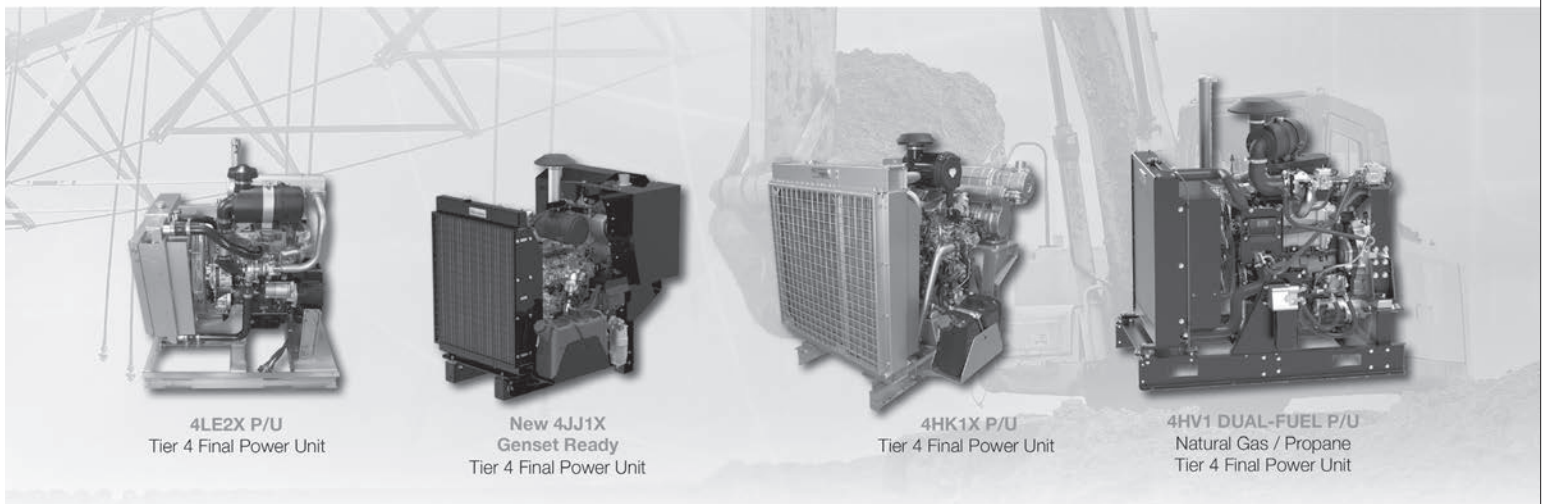
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Advanced





Mohawk Industries - Dal-Tile

Combined Heat and Power (CHP) System Boosts Efficiency and Cost Savings

The Challenge

As one of the world's largest flooring manufacturers, Mohawk Industries, prides itself on designing and manufacturing innovative products that have reduced environmental and societal impacts. As one of its powerhouse brands, Dal-Tile leads the industry in design, product innovation and commitment to sustainable products and practices. Their commitment to a more sustainable future doesn't just target what they manufacture, but how.

Part of their process in producing floor tile is spray drying, which essentially uses hot air to turn liquid into a dry powder that is then pressed into tiles. When an opportunity to improve reliability and overall energy efficiency arose at Dal-Tile's spray dryer plant in Dickson, TN, the company turned to E-Finity Distributed Generation, Capstone's distributor for the mid-Atlantic and Southeastern United States.

Beyond meeting goals for reduced energy costs, increased efficiency and reliability, the new, ultra-low emission, micro-turbine-based system was a natural fit for this Fortune 500 company's overall corporate sustainability initiatives.

The Solution

To meet the plant's sophisticated energy needs for both operations and manufacturing, E-Finity engineered the system around five natural gas-fueled C1000 Signature Series micro-turbines. The 5 MW installation is not only capable of providing up to 100% of the plant's electrical power requirements but also maintaining the minimum power import requirement of the local electrical utility. The microturbines are the force





behind the combined heat and power (CHP) system that uses natural gas to generate electricity. In this system, the waste heat generated by the microturbines is captured and redirected into the industrial drying process—a process that would otherwise require additional natural gas to operate. Now the new system uses one gas molecule twice, boosting efficiency and driving down operating costs significantly.

E-Finity's m-TIM Controller is programmed to authorize the microturbines to load follow and automatically adjust the amount of power generated to match the facility's load, achieving maximum energy efficiency and reducing the plant's overall emissions.

To improve reliability, the microturbines can operate in "island" mode, providing backup power to the facility's emergency loads. Therefore, in the event of a power grid disturbance, the facility can keep essential equipment operational. This is imperative for Dal-Tile since a power grid disturbance at their manufacturing facility will result in both product losses and damage to plant machinery.

The Results

The microturbine system installed at the Dickson facility is Capstone's single largest combined heat and power (CHP) installation to date, the first of its kind in the world. Since commissioning in the fall of 2019, the microturbines have provided the facility with more than 29,000 MWh of electricity and 370,000 MMBTU of recoverable exhaust energy. When the exhaust heat is captured in the industrial drying process, the overall efficiency can reach 97%, providing substantial greenhouse gas emissions savings over traditional means of operation. ■

What is CHP?

CHP is an energy efficient technology that generates electricity and captures the heat that would otherwise be wasted to provide useful thermal energy—such as steam or hot water—that can be used for space heating, cooling, domestic hot water and industrial processes. CHP can be located at an individual facility or building, or be a district energy or utility resource. CHP is typically located at facilities where there is a need for both electricity and thermal energy.

Nearly two-thirds of the energy used by conventional electricity generation is wasted in the form of heat discharged to the atmosphere. Additional energy is wasted during the distribution of electricity to end users. By capturing and using heat that would otherwise be wasted, and by avoiding distribution losses, CHP can achieve efficiencies of over 80 percent, compared to 50 percent for typical technologies (i.e., conventional electricity generation and an on-site boiler).

Source: [epa.gov/chp/what-chp](https://www.epa.gov/chp/what-chp)



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2021 EGSA Fall Conference Recap

EGSA Members Met in Orlando to ReEnergize with Education, Networking and Fun in the Florida Sun!

The EGSA Fall Conference helped Members learn, network and re-energize their business, all while enjoying the warmth of the Florida sun! The conference took place at the Lowes Royal Pacific Resort at Universal in Orlando, FL from October 3rd through 5th and was attended by 195 Members which included 36 first timers and/or new members.

Sunday Highlights

Sunday afternoon kicked off with three optional education sessions taught by Tom Drake (MTU America, part of the Rolls-Royce Group). The sessions focused on the important topic of Microgrids and included Microgrids 101 - Combining Multiple Power Sources for Maximum Efficiency and Up-time; Microgrids 201 - Integrating Renewables and Battery Storage into Your Power Solutions; as well as Microgrids 301 - Tying Multiple Power Systems.

Following the education sessions the conference agenda got underway with our traditional First Timer/New Member Reception. Attendees who are new to attending an EGSA Conference were presented with an overview on the organization and given the opportunity to interact with some of the EGSA Executive Committee, Board of Directors, Past Presidents, Committee Chairs and EGSA Staff members.



Left: Conference Emcee, Hal Walls Top Right: EGSA Board Chair, Kurt Summers Bottom Right: EGSA CEO Mir Mustafa

The Welcome Reception followed with attendees eager to reconnect with colleagues and EGSA Members alike. You could feel the energy in the air as we officially kicked off the conference. This Fall's theme was "ReEnergize Your Business," which was more than appropriate in light of the world-wide pandemic we have all been facing for the past year and a half.

Monday Highlights

Monday morning kicked off with a hearty breakfast and the EGSA Fall Conference Trade Show. Exhibitors enjoyed several opportunities throughout the days of the conference to interact with conference attendees.

Education Tracks

The focus on education continued on our first full day of sessions. This time there were three, one-hour, education tracks for attendees to choose from. Each track repeated twice between 8:00 and 10:00 a.m. giving attendees the flexibility to choose the topic that held the most interest to them. The tracks included: Technician Retention headed up Michelle Hilger (Mongoose Power Solutions) and Jordan Rohrer (The Power Connection); Creating a Pipeline for Technicians presented by Nathan Harris (EGSA Education Director), Jon Pinney (Buckeye Power Sales) and Patrick Trausch (Lincoln Tech); Microgrid Case Studies offered by Mike Murray (Ageto Energy) and David Stringer (DEIF, Inc.).





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1: Elvis Thanaj, Nancy & Randy Weimer 2: Peggy & Bob Piske 3: Nathan Sindorf, Pranav Desai
4: Chris Nagle, Amy Haese, Nicole Dierksheide 5: Jim Vroman, Olen Scott, Bill Kaewert
6: Olen Scott, Mike Murray 7: Barb & Steve Stoyanac, Jalane Kellough, Randy Weimer
8: Becki Salmon, Dave Henning 9: Dave Stringer, Sergio Cardenas 10: Tom Black, Walter Petty
11: Rafael Saigado, Jonas Stanley, Mark Jacobus



Following Monday morning’s education tracks, EGSA Treasurer and Conference Emcee, Hal Walls, took to the stage to welcome attendees, lead the group in our traditional pledge of allegiance and cover some housekeeping items to help everyone stay on track throughout the conference.



OnSite Power Panel Discussion

We wrapped up the morning with our Panel Discussion “The Future of OnSite Power.” The panel was moderated by EGSA Board Chair, Kurt Summers. The panelists included, Charlie Habic (Gillette Generators Inc.), Adam Mathes (Prime Power Services, Inc.) and Bob Piske (Arizona Generator Technology, Inc.). The panel discussion touched on topics including how the COVID-19 Pandemic has affected the On Site Power Industry and how to best move forward to ReEnergize Your Business.

Welcome Lunch

Our General Session attendees enjoyed lunch in a causal setting where they, again, had the opportunity to network with fellow conference attendees.

Committee Meetings

Monday afternoon consisted of EGSA Committee Meetings. The EGSA Committees are where the real heavy lifting of the Association takes place and each committee has a role to play in how EGSA moves forward.

Reception & Banquet

The Monday Reception and Banquet was lead by EGSA Chair Kurt Summers. Kurt introduced past EGSA Presidents in attendance, EGSA Staff Members, EGSA CEO, Mir Mustafa, and CFO, Marc Charon.

In addition to thanking our sponsors, Kurt also recognized Chis Nagle (Siemens Energy) and Brian VenHorst (Tramont Manufacturing LLC) for their three-year service to the Association in the position of Director. EGSA extends thanks to these gentlemen for their service.



Kurt called Efe Parker (AKSA Power Generation USA LLC) to draw the conference giveaway winner. Mark Stellmach of Fuel Management Systems was the lucky winner of a set of New Beats Studio Noise Canceling Ear Buds.

EGSA CEO, Mir Mustafa, took to the stage to update attendees on the future of EGSA while sharing his own, heartfelt personal accounts on the COVID-19 pandemic.



Tuesday Highlights

Tuesday morning started with another hearty breakfast on the trade show floor.

Education Tracks

The educational focus of the conference continued on Tuesday. The morning featured three more, one-hour, education tracks. Again each track repeated twice between 8:00 and 10:00 a.m. giving attendees the opportunity to choose the topics of most interest to them. Tuesday’s topics included: Load Banking, presented by Lee Newton (Bay Diesel Corporation) and Tom Wein (Prime Power Services, Inc.); Reinventing Your Program - Advantages of Online Learning and Understanding How to Get Started, taught by Nathan Harris (EGSA) Raymond Perrier (Prime Power Services); Important Technical Considerations in the Application of a CHP Plant, headed up by Matt Quinn (Siemens Energy Gas Engines).

Keynote Speaker

Tuesday’s general session continued with our motivational Keynote Speaker, Kevin Brown. Mr. Brown is passionate about helping people and organizations embrace a simple philosophy that separates world-class organizations and high-performance people from everybody else - he calls it The HERO Effect®. Kevin entertained, inspired and challenged attendees to show up every day and make a positive difference at work and in life!



Networking Activities

As the general session drew to a close attendees headed out for the scheduled networking activities. The golfers enjoyed an afternoon at Grand Cypress Golf Club, while the shooters headed to The Orlando Gun Club for the Fall Conference Tactical Challenge. The third activity took place at Lowes Resort where



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1: Mir Mustafa, Steve & Barb Stotanac, Kurt Summers
2: Lee Newton, Tom Wein 3: Michael Reynolds,
Dan Barbersek 4: Tom Black, Chris Nagle, Walter Petty
5: Brian VenHorst, Herb Daugherty, Nathan Harris
6: Olen Scott, Herb Daugherty 7: Raghu Varma,
Pranav Desai, Yash Patel 8: Chad Youkers, David Vennie
9: Mike Murray, Dane Olsen 10: John Kelly III & Dan Kelly
11: Dan Barbersek, Breanna Johnson, Alan Koch
12: RJ Johansen, Will Wilson, Brent Stephens, Sergio Cardenas



12

2021 FALL CONFERENCE RECAP

participants enjoyed a Taste of the Caribbean Lunch and Rum Tasting.

Tuesday's Closing Reception was a final chance for attendees to connect before heading home or continuing their Orlando vacation.

Thank You to Our Fall Conference Sponsors

The EGSA Board of Directors would like to thank the following companies for their generous sponsorship of our 2021 Fall Conference: Your support helped to make this fall's conference was a resounding success.

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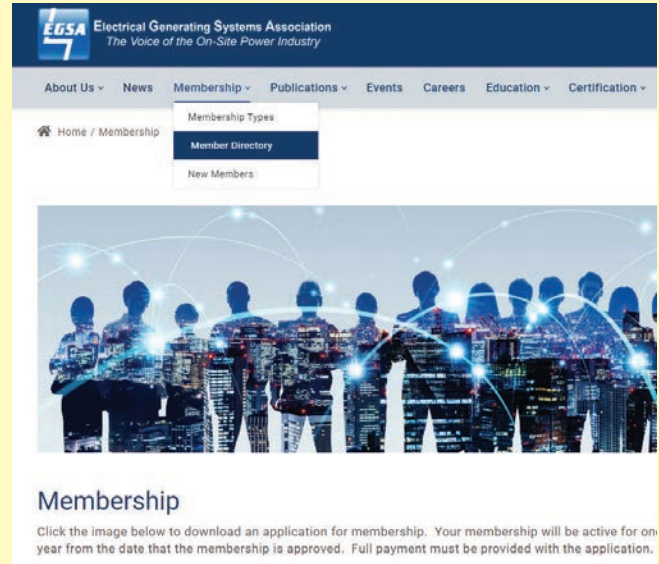
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HARDIN INDUSTRIES, LLC

Another in Our Series of Powerline Company Profiles

HARDIN INDUSTRIES, LLC hardinindustries.com

Hardin Industries, founded in 1983, originally focused on steel building construction and barge repairs. In 1994 Hardin began its move into the power industry working on generator enclosures. Within a few years the growth necessitated an expansion and the company moved to its current location in Lacon, Illinois. In 2000, recognizing the potential of the power industry market, the focus of the entire company was moved to the business of enclosure packaging. Continued growth demanded additional manufacturing space in both 2001 and 2007. Millstone Capital Advisors and current CEO, Becki Salmon, purchased the business in 2016 with a vision of moving the company to a high-quality producer capable of meeting any packaging needs.

Since the purchase, Hardin has grown more than 4.5 times in annual sales and will be breaking ground on an addition that will double their manufacturing space in 2022. They offer a full line of custom enclosures with weather protection and sound attenuation. Hardin provides custom designs to house gensets, compressors, industrial power units, switchgear/controls (E Houses), and related product from any manufacturer.

When Hardin Industries was purchased in 2016, it was with the vision to grow the company into a recognized high-quality producer, capable of meeting any customer needs. The strategy to achieve that vision was centered around building a strong team and listening to customers. The first several months after the acquisition were invested in interviewing customers and employees to clearly define their needs. Once this was complete an action plan was developed.

In the first year, Hardin implemented strengthened manufacturing processes, and retrained and certified all welders. They implemented a robust quality management system and became ISO 9001:2015 certified. UL certifications were improved to allow for larger tanks, UL 2200 and IBC compliant processes and



Top Pic: Aluminum sound attenuated enclosure housing a large Cummins 3250 kW genset and two 15kV disconnect switches. Designed with a special air handling system.

Right: Executive team : From left Becki Salmon - CEO, Eric Porter - Director of Sales, Vince Clark - Director of Operations and Josh Crisman - Director of Engineering.



2nd page top left: Weather resistant enclosure, designed to meet a specific footprint for a waste water treatment plant.

certifications were added to their credentials. At the same time, the ownership invested in increased crane capacity, stronger employee benefits, and a strong safety program.

Providing a culture where all employees are valued, listened to, and empowered to make change has aided in attracting industry expertise. A design team of one, was expanded into a team of seven mechanical and electrical engineers and designers, with decades of industry experience. The sales team of one was expanded into a team of six, again with vast industry recognition and expertise. Manufacturing leaders with 20 plus years of enclosure manufacturing were added to the team, as well as experienced quality personnel. They've built a team with the right attitude and many years of experience in the power generation industry.

Hardin has successfully transitioned into the high-quality producer, capable of meeting any need and developing highly innovative products. They continue to improve their product and process, conducting weekly continuous improvement meetings with engineering, manufacturing, field service and sales personnel. They've added state certifications, such as the Oregon Seal, and are near completion of ICC500 testing on their product.

Hardin is focused on selling a solution, not a product. Their goal is to develop the most cost effective and innovative solution to make their customer competitive and successful. Hardin has purposefully navigated away from the large volume data center work to truly fo-



Climate controlled electrical E house with 15 kV paralleling switchgear.

cus on the engine dealer network. This focus has paid off with 85% of their business coming from repeat business and referrals.

Hardin builds enclosures to house gensets, compressors, industrial power units, switchgear/controls (E Houses), and related product from any manufacturer. They offer UL 142 and 2085 tanks and skid bases as well as steps and platforms. Hardin also completes testing on diesel gensets, has full field service capabilities, Tier 4 component installs and complete retrofits on old enclosures.

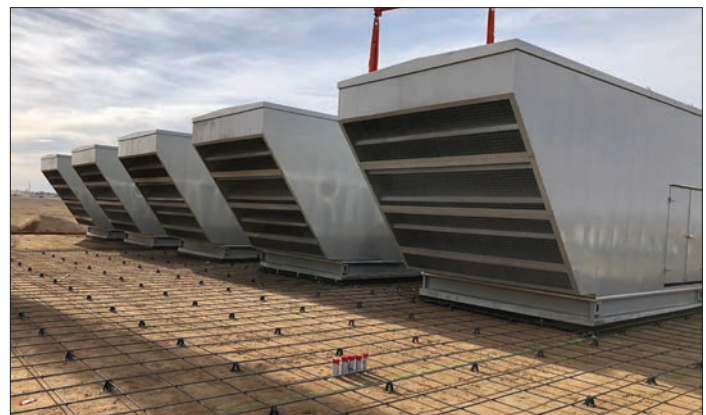
The EGSA Connection

Hardin Industries joined EGSA right after the acquisition in 2016. They have attended every conference since and have exhibited in the EGSA On-Site Power Pavilion at POWERGEN since 2017. Hardin employees have been members of various committees, including Education, Market Trends and Culture. Their employees have attended the George Rowley Schools of Onsite Power.

EGSA has been instrumental in aiding Hardin to develop stronger industry relationships, gain important industry knowledge, and provide training to their employees. Hardin's relationships have grown and been strengthened by the networking opportunities provided by its EGSA membership. ■



Acoustic enclosure for a CAT C175-20 rated at 3900 kW. Large UL142 fuel tank and sound rated for 73 dBA @ 7 meters.



Five (5) CAT 3512 13.2kV natural gas enclosures with Hardin installed gas train and neutral grounding resistors.

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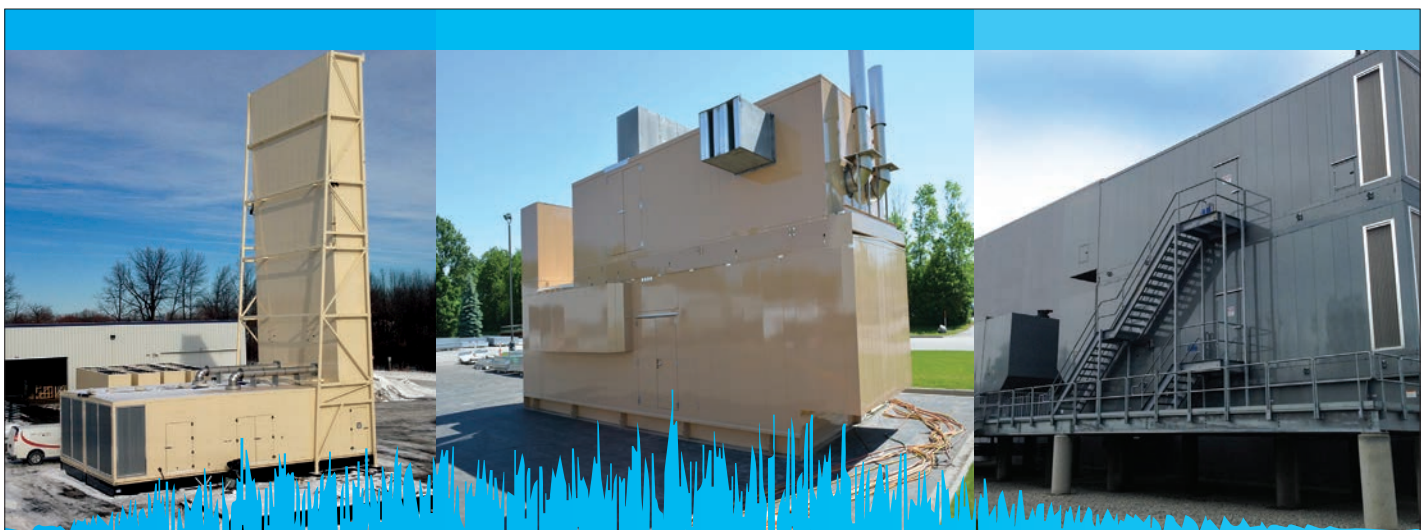
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FULL MEMBERSHIP		Annual Dues	Initiation	TOTAL DUE
These Full Memberships categories are for corporations and their memberships cover all employees of the company.				
MF Manufacturer Membership Any individual, sole proprietor, partnership or corporation seeking membership must apply for a Full Membership as a manufacturer if they meet one or more of the following criteria: 1. They manufacture prime movers for power generation. 2. They manufacture generators or other power conversion devices producing electricity. 3. They manufacture switchgear or electrical control devices. 4. They manufacture or assemble generator sets, UPS systems, solar power, hydropower, geothermal, or any other power production or conversion system including related components or accessories for national or regional distribution. 5. They are a wholly owned subsidiary of a firm that qualifies under rules one through four.		\$1,129	\$200	\$1,329
DD Distributor/Dealer Membership Any individual, sole proprietor, partnership or corporation actively engaged as a distributor or dealer for products listed under Manufacturer Membership may apply for Full Membership as a Distributor/Dealer. If an organization qualifies under Manufacturer Membership, it is not qualified under this section.		\$423	\$100	\$523
CI Contractor/Integrator Membership Any individual, sole proprietor, partnership or corporation actively engaged as a Contractor or Equipment Integrator of products listed under Manufacturer Membership, not bound by brand, geographic territory or contractually obligated as a Distributor/Dealer of a specific product. These firms typically purchase products from a Distributor/Dealer, Manufacturer or Retailer, adding value through installation, product knowledge, relationships, unique services, etc., and then re-sell the resulting product to an end-user.				
MR Manufacturer's Representative Membership Any individual, sole proprietor, partnership or corporation actively engaged in the representation of products listed under Manufacturer Membership may apply for Full Membership as a Manufacturer's Representative. If an organization qualifies under Manufacturer Membership, it is not qualified under this section.				
EM Energy Management Company Membership Any individual, sole proprietor, partnership or corporation engaged in energy management, including Energy Service Companies (ESCOs), Independent Power Producers (IPPs), Integrators, Aggregators, and other similar enterprises may apply for Full Membership as an Energy Management Company.		\$289	\$100	\$389
ASSOCIATE MEMBERSHIP		Annual Dues	Initiation	TOTAL DUE
EGSA has two Associate Member types, Associate Regular and Associate Full . Companies have the choice of joining as an Associate Regular Member or Associate Full Member. Individuals can join as an Associate Regular Member only.				
Associate Regular Membership (Select Appropriate Category Below)		\$289	\$100	\$389
Associate Full Membership Any individual, sole proprietor, academic institution, student, partnership or corporation meeting the requirements of Associate Regular Membership may apply for Full Membership at their option to enjoy the privileges of Full Membership, including the rights to vote and to serve on EGSA's Board of Directors . Initiation fees and annual dues will be assessed at the existing non-manufacturer Full Member rates. (Select Appropriate Category Below)		\$423	\$100	\$523
Associate Membership Categories				
Associate Regular Membership Categories	AA Trade Publication Membership Any trade publication dealing with the electrical generating systems industry or its suppliers may apply for Associate Membership—Trade Publications.			
	AB Trade Association Membership Any trade association made up of individual or company members sharing a common interest in the electrical generating systems industry may apply for Associate Membership.			
	AC Engineer Membership Any consulting or specifying engineer may apply for Associate Membership—Engineer. Membership may either be held in the employer's name or individual's name under this classification. Individuals whose employer qualify as a Full Member, as described in the Full Membership section, do not qualify for this category.			
	AD End-User Membership Any individual employee of a company who owns or operates electrical generating equipment and/or related switchgear or components, whose responsibility to his employer includes planning, design, installation, supervision, or service of such equipment may apply for Associate Membership—User. Membership may either be held in the employer's name or individual's name under this classification. Individuals whose employer qualify as a Full Member, as described in the Full Membership section, do not qualify for this category.			
	AE Service Membership Any individual, organization or academic institution that offers services such as research, testing or repair to the electrical generating systems industry may apply for Associate Membership—Services. Membership may either be held in the individual's name or the organization's name under this classification. Individual companies whose employer or parent organization qualifies as a Full Member, as described in the Full Membership section, do not qualify for this category.			
	AG Educational Institution Membership Any postsecondary vocational-technical school or college offering on-site power generation-related instruction may apply for Associate Membership—Education Institution.			
	AI Individual Membership Any individual who was previously employed in the on-site power generation industry but is no longer actively employed in the industry.	\$118	N/A	\$118
	AM Military Membership Any individual who is currently enlisted, or who has been discharged, or has retired from the US or Canadian Military may apply for membership within this category. Proof of military engagement is required by either current Military ID card or honorable discharge documents.	\$70	N/A	\$70
	AR Retiree Membership Any individual who retires from a member company may apply for Associate Membership—Retired. This classification does not apply to any individual who is employed more than 20 hours per week.	Complimentary		\$0
	AF Student Membership Any individual currently enrolled at an academic institution may apply for Associate Membership—Student.	Complimentary		\$0

1. 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 Powerline magazine Colleague POWER-GEN Other _____
 Why are you joining EGSA? Certification Program CEU Program Power Schools Buying Guide Listing Other _____

2. 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 Representative (MR)
- Energy Management Company (EM)

Associate Memberships

- Regular Associate Membership →
- Full Associate Membership →

(Select Appropriate Category)

- Trade Publication (AA)
- Trade Association (AB)
- Engineer (AC)
- End User (AD)
- Service (AE)
- Educational Institution (AG)
- Individual (AI)
- Military (AM)
- Retiree (AR)
- Student (AF)

3. Membership Dues

(Please fill in the appropriate TOTAL amount from the dues schedule on page one.)

Membership Dues \$ _____
 Membership Plaque (optional)** \$ 85.00**
 On-Site Power Generation: A Comprehensive Guide to On-Site Power (optional)** \$ 216.00 **
Florida Residents: Add 7% Sales Tax to ** items \$ _____
 ** Shipping and handling is included for Continental US & Canadian Residents.
 All others should call EGSA Headquarters for shipping charges for **items. \$ _____
TOTAL \$ _____

4. Payment Method

(Payable in US\$ drawn on U.S. bank, U.S. Money Order, or American Express)

Check # _____ Amount Due \$ _____
 Mastercard Visa American Express
 Card # _____ Exp. Date _____
 Signature: _____
 Print Name: _____

5. Products/Services

Please describe the nature of your business (50 words or less, NOT ALL CAPS). If you are a Manufacturer's Representative or Distributor/Dealer, please indicate which manufacturers you represent and/or distribute for; if you are a student, please provide the name and location of your school, your major and your anticipated graduation date:

Do you buy AND sell equipment? Yes No Do you manufacture packaged equipment? Yes No

6. 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 _____

Available Codes:

- | | | | | |
|-----------------------------------|--|--|---|--------------------------------------|
| 01 ---Batteries/Battery Chargers | 07 ---Engine Starters/Starting Aids | 12 ---Governors | 18 ---Relays, Protective or Synchronizing | 22 ---Trailers, Generator Set |
| 02 ---Control/Annunciator Systems | 08 ---Filters, Lube Oil, Fuel or Air | 13 ---Heat Recovery Systems | 19 Silencers/Exhaust Systems/Noise Abatement | 23 ---Transformers |
| 29 ---Education | 28 ---Fuel Cells | 14 Instruments and controls, including meters, gauges, relays, contactors, or switches | 20 ---Solenoids | 24 ---Uninterruptible Power Supplies |
| 30 ---Emission Control Equipment | 03 Fuel Tanks and Fuel Storage Systems | 15 ---Load Banks | 21 ---Switchgear and Transfer Switches (Automatic or Manual), Bypass Isolation Switches, and/or Switchgear Panels | 25 ---Vibration Isolators |
| 04 ---Enclosures, Generator Set | 09 ---Generator Laminations | 16 ---Motor Generator Sets | | 26 ---Voltage Regulators |
| 05 ---Engines, Diesel or Gas | 10 ---Generator Sets | 17 ---Radiator/Heat Exchangers | | 27 ---Wiring Devices or Receptacles |
| 06 ---Engines, Gas Turbine | 11 ---Generators/Alternators | | | |

Enter codes here: (Limit 10 codes per category)

Products sold: _____
Products rented: _____
Products serviced: _____

7. Official Representative's Authorization

Signature _____ Date _____

Meet Your EGSA Secretary

Justin McMahon

In each of the upcoming issues we will be sharing information on some of the volunteers who donate their time for the betterment of the Electrical Generating Systems Association and the industry as a whole. Without their hard work and dedication to EGSA, much of the efforts and directives simply wouldn't be possible.



EGSA Secretary - Justin McMahon

Justin McMahon has been involved in the development, production and sales of electrical motors and alternators for more than 16 years, having first joined Emerson Electric in 2005, the parent company of Leroy Somer, a 100+-year-old manufacturer of electrical components supplying portable generator and lighting tower alternators to OEM packagers throughout North America. He currently leads the company's Supply Chain and Quality Assurance teams across three production sites in North America, now under the ownership of Nidec Motor Company.

In his previous role, McMahon had transitioned from his background in sales to serve as Vice President of Operations, responsible for alternator production in three manufacturing locations in the USA and Mexico. When asked about the transition, McMahon stated "...as I explained to my customers, the very definition of irony is to have the sales guy who previously promised you the world be the one who now must deliver it." Alongside his team of 950+, they successfully navigated the COVID related challenges over the last few years to keep employees safe while working to power global recovery efforts.

Throughout his time with Emerson and Nidec, McMahon has always worked for the Leroy Somer and Kato Engineering businesses, leading global account management and regional sales teams focused on expanding motor and alternator sales. Before joining Leroy Somer in 2005, McMahon started his professional career working for Midvale Industries, a 120-year-old industrial distributor of supplies and equipment for the metal casting and aerospace industries.

How/Why did you first become involved in EGSA?

Simple, Jim Twardowski. In 2005, when I started with Leroy Somer, I was brand new to the power generation industry and Jim was my sales manager. He had many years of prior EGSA experience and sent me to my first conference to expand my knowledge, network and professional connections. Looking back, I am thankful to Jim for providing me that opportunity as it was an excellent introduction to the people, companies and products of our industry and while some have since retired or moved on, I still see many of those same faces from 2005 at our conferences today.

What leadership positions have you held within EGSA?

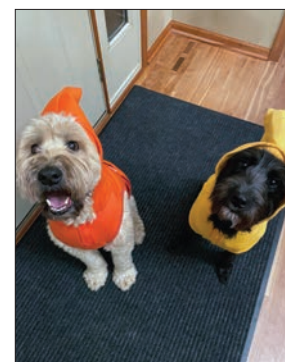
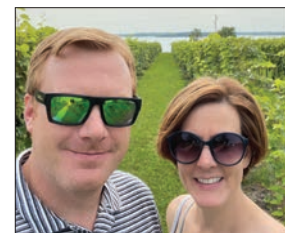
Starting with my election at the San Diego conference in 2014, I served as the Secretary, Vice-Chair and Chair of the Market Trends committee. In 2016, I was elected to the Board of Directors and have spent the last 2 years as Secretary of the Board's Executive Committee. In addition, I have also served as the Board Liaison to the International Trade, Green and Market Trends committees throughout the last several years.

What do you like to do in your free time?

When I am successful in carving out free time, the family and I enjoy the MN seasonal activities like boating, snowboarding and cycling. Since we aren't native to MN originally, it has taken us many years of experimentation to get into a rhythm of finding something to do in each condition because you can't change the weather here, only the number of layers you have on.

What is one thing most EGSA Members probably do not know about you?

I'm an FAA certified pilot and most recently completed my seaplane rating. Without a doubt, that is the most fun flying I've ever done in my life, I can't wait for summer to return to MN next year! ■



Photos from top to bottom:

1. Justin & wife Molly at a local winery
2. Justin, Molly, Mairin & Harper
3. Mavis & Emmy-Lou greeting during Halloween as Ketchup and Mustard
4. Solo winter flight
5. Photo-op stop on the St. Croix

EGSA JOB BANK

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 EGSA.org/Careers.aspx.

USA Midwest

Commercial Engine Technician - Field, Power Systems

Altorfer Power Systems

Location: Davenport, IA

Provide exceptional service to customers by performing maintenance, diagnosis, and repairs to Electric Power Generation and Industrial equipment. This includes paralleling switchgear and electrical controls. Inspect and recommend service repair options. Communicate between customer and field dispatch. Other duties as assigned

To apply: <https://careers-altorfer.icims.com/jobs/3738/commercial-engine-technician--field%2c-power-systems/job>

Application Deadline: 12/15/2021

Project Engineer - Power Generation

Altorfer Power Systems

Location: Addison, IL

Provide solutions to customers on large power generation upgrade projects and repairs. Will serve as a technical liaison between the sales team, service department and the customer to support new sales. Provide project scope of work, solicit outside vendor quotes, job details, and provide engineering support.

EGSA Certified Technicians Preferred

To apply: <https://careers-altorfer.icims.com/jobs/3734/project-engineer--power-generation/job>

Application Deadline: 12/15/2021

Parts Warehouse Specialist, Power Systems

Altorfer Power Systems

Location: East Peoria, IL

Primary responsibilities include shipping/receiving, hose assembly, inventory storage, and order picking activities for the Parts Department.

To apply: <https://careers-altorfer.icims.com/jobs/3907/parts-warehouse-specialist%2c-power-systems/job>

Application Deadline: 12/15/2021

Service Clerk, Power

Altorfer Power Systems

Location: Addison, IL

Provides customer service, clerical and administrative support to Power Systems. Maintaining service work order records, researching customer information, equipment information when necessary. Assist with Preventative Maintenance: visit scheduling, opening/closing of PM workorders & order parts. Answer customer calls and assist as needed. Issue purchase orders, code invoices, and more.

To apply: <https://careers-altorfer.icims.com/jobs/3833/service-clerk%2c-power/job>

Application Deadline: 12/15/2021

Field Service Supervisor - Preventative Maintenance

Altorfer Power Systems

Location: Addison, IL

Ensure proper execution of preventative/planned maintenance of customer equipment per sold maintenance agreements and OEM maintenance schedules. Managing incoming orders, scheduled PM visits, workorder creation strategy/process, parts ordering, technician execution in the field, and workplan improvement. Supervise office staff. Work with assigned technicians, to facilitate PM requirements of the department.

To apply: <https://careers-altorfer.icims.com/jobs/3904/field-service-supervisor--preventative-maintenance/job>

Application Deadline: 12/15/2021

Power Sales Manager

Altorfer Power Systems

Location: Addison, IL

(Alternate locations: Bartonville, IL and Cedar Rapids, IA) Altorfer Power Systems is seeking a seasoned Sales Management Professional to lead our growing Power Systems Sales Team. Applicant should have significant experience in leading either a high-performing Electrical or Power Systems Sales Team. Applicant must have a proven track record of market analysis and strategic market penetration planning

To apply: Please apply here: <https://careers-altorfer.icims.com/jobs/3948/power-sales-manager--power-systems/job>

Application Deadline: 2/28/2022

USA Northeast

Generator Service Technician

Kinsley Power Systems

Location: Bronx, NY

Kinsley Power Systems is growing and seeking Generator Technicians to add to our team! Kinsley offers competitive compensation, 401(k) with company match, vacation and holiday pay, and comprehensive benefits with a health savings plan. Additionally, technicians receive company sponsored trainings and certifications (EGSA), a company vehicle & gas card, company provided uniforms, annual boot and uniform stipends, along with the ability to work alongside some of the top technicians in the industry.

** Military and recent trade school graduates are encouraged to apply! **

Essential Functions:

- Performing preventative maintenance and repairs on standby generator systems;
- Troubleshooting and diagnostic testing, load-bank testing and start-ups;
- Completing and submitting work orders
- Preparing accurate quotes for repairs;
- Maintaining a vehicle inventory;
- Additional duties as assigned

Requirements:

- Previous experience working on residential or industrial generators;
- Exceptional communication and customer service skills;
- The ability to participate in an on call, rotating schedule;
- Must provide your own tools (multi-meter, hand-tools, etc.);
- Safety focused with an OSHA 10 or the ability to attain one;
- Valid DOT Card (or the ability to attain one) and valid driver's license

Note: Essential functions are representative of the knowledge, skills and/or abilities necessary to meet the minimum job requirements of this position, but are not intended to be comprehensive. Ordering of essential functions does not necessarily reflect importance of item. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity or national origin.

EGSA Certified Technicians Preferred

To apply: www.kinsley-group.com/careers Or submit your resume to the following Talent Acquisition Specialist: adisanti@kinsley-group.com salberino@kinsley-group.com

USA Southwest

Generator Field Service Technicians

Loftin Equipment Co

Location: Phoenix

Home of the 2019 EGSA TOYA, Loftin Equipment Co is looking for Generator Technicians in multiple locations. We currently have openings in Colorado,

New Mexico, Dallas TX, San Antonio TX, and Houston TX. We are offering a \$5000 signing bonus.

Please reach out if you are interested. Brent Stephens, bstephens@loftinequip.com, 210-556-5133

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)

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 AI=Individual AM=Military AR=Retiree AF=Student

Electromechanex, LLC CI
 Vineand, NJ
 856-362-4553 electromechanex.com
 Daryl Desiere, *President*
 Electric motor and generator repair facility, and related rotating electrical and mechanical equipment repair and service both in the shop and in the field. Field services include electric motor and generator service, vibration analysis, dynamic balancing, motor controls, PLCs, VFDs, preventive and predictive maintenance.

FlexEnergy Solutions MF
 Greenwood Village, CO
 720-573-7664 flexenergy.com
 Mark Schnepel, *Chief Executive Officer*
 FlexEnergy Solutions manufactures, leases and sells small gas turbine generators (microturbines) and custom-fit heat exchangers for facilities and communities across the globe. Combined with our outstanding proven record of low maintenance and 99 uptime, we deliver total product value to industrial, commercial and remote facilities that have a consistent need for reliable, scalable and low emissions power.

Foley Power Systems..... DD
 Piscataway, NJ
 732-885-3064 foleyinc.com
 Bob Dahmer, *Electrical Technical Communicator*
 Caterpillar dealer selling and servicing Caterpillar power systems products including gensets, switchgear, ATS as well as other makes.

Pape Power Systems DD
 Fontana, CA
 909-428-3400
papemh.com/power-systems
 Jim Whitcher, *Sales Manager*
 Pape Power Systems (formerly YC Power) is the Generac Industrial Distributor for all of Southern California. New generator and transfer switch sales, service on all models, generator rentals.

Power House Generators Inc. CI
 Lakewood, NJ
 732-941-0315 phgenerators.com
 Shloime Bochner, *President*
 We service and install generators.

Prime Power Corp. DD
 Chestermere, AB Canada
 403-477-2262 primepower.ca
 Shawn Merkley, *President*
 Prime Power Corp. is a full sales, service and power generation rental company. Selling Gillette Generators, Briggs & Stratton residential and light commercial generators along with other brands of equipment and accessories. Prime Power Corp. services all makes and models of emergency and backup power generators and supplies rental power and distribution to support our clients with contingency plans, events, turn-arounds and more.

SPOC Grid Inverter TechnologiesMF
 Trussville, AL
 844-776-2833 spocgrid.com
 Andrew Williams, *Managing Director*
 SPOC Grid Inverter Technologies provides equipment that improves our clients' ESG metrics by reducing Scope 1 and 2 carbon emissions. Our Hybrid Inverter and Energy Storage Products allow gensets to save fuel by running at variable speed when lightly loaded and use energy storage for peak demand and improved responsiveness.

SR Bray LLC DBA Power Plus..... CI
 Anaheim, CA
 888-970-0007 powerplus.com
 David McCorkle, *Area Service Director*
 National Service Provider providing service, maintenance & repairs on all OEM generators and transfer switches, equipment sales & installation. Rental fleet of portable generators ranging from 20 kW - 200 kW.

Starline AG Inc...... MF
 Brandon, MB Canada
 204-346-3530
 Robert Dueck, *President*
 Small manufacturer of generator sets 25-800 kW.

Strength to Ride Out the Storm

- Premier Generator Packaging
- UL142 and UL2085 Listed Tanks
- 2-hr. Fire Rating, Large Missile Impact Rating
- Enclosures Rated Up to 200 mph
- Fuel Management Solutions
- Warranty Up to 30 Years
- FDEP EQ, Florida Product Approval & Miami-Dade NOA

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DESIGN • MANUFACTURE • RESULTS

ARE YOU CONFIDENT YOUR TECHNICIANS HAVE THE KNOWLEDGE TO GET THROUGH THE NEXT ELECTRICAL EMERGENCY ?

MAKE SURE THEY ARE

EGSA CERTIFIED!

What is EGSA 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 offer two 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 has been upgraded to reflect current technologies.

Our On-Site Power Generation Reference Book (5th Edition) is a great resource to prepare for the certification exam. We also offer bundle packages that include study guides.

Please visit EGSA.org for additional details on the program.

