POWERLINE

The Voice of the On-Site Power Generating Industry

Fall 25

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Electrical Generating Systems Association

2026 PROSPECTUS

GENERATING OPPORTUNITY

Your Guide to Visibility and Value in the Onsite Power Industry

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The **Electrical Generating Systems Association (EGSA)** brings together the full spectrum of the onsite power industry. With average conference attendance of 400+ and a network that spans 10,000+ professionals, EGSA sponsorships provide measurable brand exposure, networking access, and influence.

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POWERLINE

The Voice of the On-Site Power Generating Industry

Vol. 60 No.3 | Fall 25

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OCTOBER

October 5-7
EGSA Fall Conference
Orlando, FL

October 5-7
EGSA Engineering Symposium
Orlando, FL

NOVEMBER

November 10-12
EGSA Basic School of Onsite Power
Virtual

DECEMBER

December 8-11
EGSA Advanced School of Onsite Power
Virtual

2026 Calendar Coming Soon!

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See You in Orlando: Where Members Make the Difference

This year, EGSA proudly celebrates its 60th Anniversary—six decades of serving as the voice of the onsite power industry. Since our founding, we've brought together professionals from across the field to exchange knowledge, foster relationships, and advance our shared mission. That tradition continues this fall as we gather in Orlando for the 2025 EGSA Fall Conference.

This year's conference will feature the inaugural EGSA Women's Network reception on Monday evening, providing a first look at this exciting new initiative. Led by Alyce Peterson of Service Pro by MSI Data, the reception kicks off the program ahead of its official launch in 2026. We encourage all members to attend and take part in shaping this initiative. It's a wonderful opportunity for professional women in our industry to connect, collaborate, and thrive.

Inside This Issue

This edition of *Powerline* is designed to get you ready for Orlando and highlight the many ways our Association is moving forward. We are pleased to feature an article from our keynote presenter, Dr. Michelle Rozen, titled "Thriving Under Pressure: How the Power Generation Industry Can Adapt and Succeed in a World That Won't Stop Changing." You'll also find a conference preview on page 24. And a big *Thank You* to many exhibitors and sponsors who make this gathering possible.

Alongside these features are updates from across our committees—the Education Committee, AI Onsite Power Task Force, Codes & Standards Committee, Engineering Subcommittee, Membership Committee, and Microgrid & Renewables Committee—demonstrating how EGSA's volunteer leaders continue to shape the direction of our industry.

Welcome to our newest EGSA members! You can find the complete list of 2025 members on page 7. In this issue, we profile one of our newer members EXIM and share a timely legal update from Ogletree Deakins.

To round out the issue, we are proud to publish two insightful white papers:

- Bill Kaewert of SENS explores the future of critical power equipment in "What will the mission for critical power equipment look like in 2030, and why?"
- Andy Briggs of Power Telematics offers practical strategies in "Embrace Technology to Grow Your Service Business."

As you read through this issue, I hope you'll see both the strength of our community and the promise of the future we're building together. Let's celebrate EGSA's 60 years of leadership—and carry that legacy forward in Orlando this fall.

Beth Helberg
Executive Director, Membership Experience
Editor, *Powerline*
b.helberg@egsa.org

If you'll be at the conference, I encourage you to find me and say hello—I always enjoy connecting with members and hearing your perspectives on how EGSA can continue to grow.

See you at the Fall Conference! ●

FROM THE TOP

A Message from the EGSA Board Chair

Daniel Barbersek
EGSA Chair
Senior Vice President
ASKA Power Generation, USA

Resiliency at the Source: The Growing Role of OnSite Power Generation

I'm very much looking forward to this year's EGSA Fall Conference in Orlando, Florida. With this year's theme being *"Disaster Resilience,"* the location couldn't be more appropriate. As those of us in the power generation industry know well, the demand for reliable energy in North America continues to climb—driven by everything from population growth to the explosive expansion of data centers.

In a power landscape increasingly shaped by climate uncertainty, cyber vulnerabilities, and aging infrastructure, onsite power generation is no longer a luxury—it's a necessity. As organizations across critical sectors grapple with grid reliability concerns, the value of localized, self-sufficient energy solutions continues to rise.

Onsite power generation—typically delivered through diesel or natural gas generators, microturbines, fuel cells, or solar-plus-storage systems—provides an essential layer of resiliency. Hospitals, data centers, water utilities, and manufacturing plants rely on these systems to maintain operations during outages or disruptions. The economic impact of even short-term power loss in these settings is measured not just in dollars, but in public safety and service continuity.

More than just a backup, onsite generation is evolving into a key component of energy strategy. With the rise of distributed energy resources (DERs) and the push for decarbonization, facilities are now integrating on-site systems into grid-interactive frameworks. This allows them to participate in demand response programs, reduce peak demand charges, and increase energy independence.

Policy is also playing a role. Recent federal and state incentives aimed at bolstering grid resilience and promoting clean energy investment have helped accelerate adoption. However, the regulatory environment remains complex, requiring careful navigation by facility operators, engineers, and contractors. Compliance with emissions standards, interconnection requirements, and testing protocols must remain a top priority.

The onsite power generation industry stands at a critical juncture. As threats to grid stability grow, so too does the expectation that mission-critical facilities will be prepared. Industry professionals—many of whom are members of EGSA—are leading the charge, designing, installing, and maintaining systems that deliver power where and when it's needed most.

EGSA's mission to advance the onsite power industry through education, standards, and advocacy has never been more vital. As the grid of the future takes shape, the role of distributed generation will only expand. For our industry, that means opportunity—but also responsibility.

Now is the time to ensure that onsite power is not just a fallback, but a forward-looking solution at the heart of our energy infrastructure. At this year's conference, I look forward to engaging with colleagues and exploring how we can face these challenges together. ●

WELCOME

To Our Newest EGSA Members!*

1st Class Generator Services

Accurate Power and Technology, Inc.

AlphaK Holdings

American Generator Service, LLC

AMPS - Association of Manufacturers and suppliers of Power generating Systems

BLNCD Engineering

Bluedoor Industries

BorgWarner

Catalyst Strategic Advisors

CDTi Advanced Materials Inc.

Chesapeake Cooling Solutions

CMTA

Contemporary Recruiting LLC

Db Sales Company

ES West Coast LLC - Energy Systems

Excellerate, a Division of FTI.

EXIM - Export-Import Bank of the United States

FEV North America, Inc.

Fleming Controls and Power Specialties

Foundation for Resilient Societies

Generator Systems LLC

Gibbs Electric LLC

Herc Rentals

Imperial Capital Ltd.

Insula Electric

JENDER

KJ Power Generator

Lightning Unlimited, Inc.

Mainspring Energy

Mario Power Generator Service

McKim & Creed

Mead & Hunt

Mid-America Engine, Inc.

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OSP

Polar Field Services

RCP Controls, Inc.

Red Iron Group

Red Top Solutions

Ripple Equity Partners LLC

RS&H

Select Energy LLC

SRCOSMOS

State University of New York at Cobleskill SUNY Co

Sun Haven Partners, LLC

Sundance Equipment Sales, LLC

Superior Plus Propane

Switch

Sync-Power Services, Inc.

Texas Industrial Infrastructure Services

The Blackfin Group

The Soundcoat Company, Inc.

Visa s.p.a.

Warren Equity Partners

Wesmart, Inc

If you don't see your organization's name, contact us at **info@egsa.org** to find out more about membership and how you can be in the next *Powerline*!

**as of 9/2/25*

EGSA Education Department: A Summer of Growth and New Development

Raymond Perrier, Ph.D.
EGSA Education Director
r.perrier@EGSA.org

Tom Wein
EGSA, Executive Director of Education
t.wein@EGSA.org

This summer was a season of growth, opportunity, and meaningful progress for EGSA's Education Department. Education remains central to our mission, and the summer of 2025 marked a significant milestone as we advanced new training initiatives and expanded our commitment to serving EGSA's community.

The highlight of the season was our partnership with the New York City Housing Authority (NYCHA). Together, we developed a workforce training program designed to strengthen their generator maintenance practices and address critical skill gaps. Teaching this group was particularly rewarding. Their enthusiasm and eagerness to learn new skills and enhance their knowledge were matched only by their determination to grow into confident, capable generator professionals.

It was inspiring to see technicians begin with limited knowledge of generators and basic maintenance routines, then advance step by step — mastering safety procedures, applying technical knowledge, and ultimately gaining the confidence to perform real service work.

The transformation was remarkable. What began in the classroom quickly carried over to the job site, where participants embraced the challenges of hands-on training. They tackled real world maintenance tasks, from troubleshooting equipment, checking fluids to hauling more than 200 gallons of oil and supplies up to rooftops to complete major maintenance tasks. They checked the conditions of belts and hoses, performed coolant flushes, did mag pickup adjustments, battery charger replacements, programming, and signal conditioners.

The dedication and perseverance they demonstrated not only validated the impact of training, but also highlighted its role in building stronger, more resilient communities.

Custom Training Opportunities Bear Fruit

Our collaboration with NYCHA also inspired us to take what we developed with them and shape it into a new training opportunity for all EGSA members. We are currently workshopping the name *Generator Maintenance Program,* Level I with the goal of expanding it into a Level II program This course will provide a strong foundation in essential maintenance routines that support long-term system reliability. Core topics include generator theory, electrical safety, NFPA 110-compliant major and minor maintenance procedures, and trend analysis, among others. *Contact education@egsa.org for more details on the program.*

The experience working with NYCHA was a good reminder that custom-built training programs can be indicators of broader industry challenges. It highlighted common workforce skill gaps that extend well beyond a single organization.

Looking ahead, we hope to collaborate with more of our members to create tailored workforce development solutions that not only meet their immediate needs but also serve as the foundation for future programs that will help the wider EGSA community close skill gaps and strengthen the industry as a whole. ●

EGSA

Program Description

EGSA's Generator Maintenance, Level I course covers the fundamentals of electrical systems, an overview of generator technology and operating theory, and essential safety practices for maintenance professionals and service technicians. The course introduces NFPA 110 requirements with a focus on major and minor primary maintenance (PM) procedures, provides hands-on experience with basic troubleshooting of the electrical starting system, and emphasizes the importance of trend analysis and accurate documentation using PM check sheets and logs.

AUDIENCE: Anyone new to Emergency Power, service technicians, end-users, service managers, and sales representatives

Electrical Safety

Demonstrate safety awareness by correctly using PPE, following lockout/tagout procedures, and applying NFPA 110 guidelines for minor and major maintenance tasks.

Perform Routine Inspections and Mainenance

Demonstrate ability to perform primary maintenance (minors and majors) on EPSS, including fluid checks, oil changes, and weekly inspection procedures, while documenting findings accurately.

Basic Troubleshooting

Learn troubleshooting methods by practicing on the electrical starting system using diagnostic tools (e.g., DMM), and applying systematic troubleshooting techniques to identify and correct faults.

Trend Analysis

Be ablet to analyze system performance trends by recording inspection data on PM check sheets, identifying early signs of equipment degradation, and ensuring compliance with industry standards.

Generator Maintenance Program, Level I

Interested in our new program?
Contact us at **education@egsa.org**!

EGSA
Electrical Generating Systems Association

Building the 2026 Education Calendar—With *YOU* in Mind

EGSA is shaping the future of onsite power education, and 2026 is already on the horizon. Our education calendar is designed to deliver the programs your teams need most:

- **Rowley Schools –** Industry-leading courses that give professionals—from entry level to advanced—the technical knowledge and confidence to succeed.
- **Load Bank Certification –** The only standardized program for load bank technicians, trusted across the industry for its rigor and credibility.
- **Customized Training –** Flexible, expert-led sessions developed around your people, your equipment, and your facility.

As we finalize our **2026 education calendar**, we want to hear from you.

Are you interested in hosting an education event at your facilities?

Partner with EGSA and bring top-tier training directly to your team.

For more information and to discuss opportunities, contact **education@egsa.org**.

Designing for Disaster: How Engineers Build Resiliency into the Grid

Joe Kendall
Chair, Engineering Sub-Committee
Schneider Electric

Natural disasters strike in different ways, sometimes with days of warning, and sometimes in an instant—but the impact is almost always the same: damaged communities, strained utilities, and hard lessons in resilience. From tornadoes in New Jersey to hurricanes in Florida and earthquakes in California, each region faces its own risks.

The challenge for engineers is clear: design infrastructure that not only survives the storm but keeps the power on when it matters most.

Tornadoes: Sudden and Concentrated Damage

Whenever someone brings up the topic of close calls with natural disasters, my mind goes back to the latter half of summer in 2021. I was thirty years old and had been living in Florida for several years at that point, but one day, I found myself climbing into the passenger seat of dad's beat-up Tundra at the Philadelphia airport. I had just flown in from Orlando so that I could help my parents clear out their house, which had just gone under contract. Tucked away in a quiet little town surrounded by farms in South Jersey, the house for sale was the home I had grown up in, so I was happy to visit one last time.

My parents both seemed to exhibit a touch of seller's remorse, as one might call it. It was the home they raised a family in, after all, and had lived there for over thirty years. Sure enough, the house was closed on, and my parents hauled their remaining belongings to the Jersey shore where they spent the rest of the season. My mother had a lot of second thoughts surrounding whether it was the right time to move. Validation came two weeks later when a 400-yard-wide EF3 tornado ripped directly through the tiny town, causing devastating damage along the entirety of its path. It was the largest of several tornadoes in the outbreak that ensued when Hurricane Ida broke apart into multiple storm cells.

In total, one person died because of the outbreak, and several people were injured. Damage costs came to $72 million. The Mullica Hill tornado was responsible for $64 million, making my hometown virtually unrecognizable. At least nine houses were completely destroyed, with hundreds more sustaining serious damage. Some of my friends reported power being out for over a week and had to live without air conditioning for quite some time in the latter half summer heat and humidity. Fortunately, the town was built back up quickly with help from neighboring communities.

$72 million in damage might not sound like much, but when you consider the width and the path of the Mullica Hill tornado, the damage cost works out to be $26.4 million per square mile. How does this differ from the damage costs of say, a hurricane?

Tornadoes vs. Hurricanes: Concentrated vs. Widespread Destruction

Having lived in both New Jersey and Florida, I've seen two very different kinds of disasters. Tornadoes, like the one in Mullica Hill, cut narrow paths of destruction with little warning. Hurricanes, on the other hand, sprawl across entire regions, disrupting lives for weeks.

When I first moved to Florida, Hurricane Irma had just devastated the entire region. I didn't have appreciation for its impact on the area until after my flight arrived and I found myself at an Extended Stay America in Altamonte Springs, which was about half hour north of the hot tourism spots in Orlando.

You can imagine my surprise when the front desk clerk informed me that the hotel was fully booked. It was odd to me that people waiting in the check-in line seemed to be…local. A man behind me was wearing an Orlando Magic jersey, and one lady behind him had a keychain boasting that she was a "Platinum Universal Studios Annual Passholder." I decided to break the silence and ask what had brought them all here. Everyone plainly responded in unison, "Irma."

Some were returning to the area for the first time and found that their homes were unlivable with the damage they sustained. Several of them hired contractors to make repairs and they needed a place to stay during the reconstruction process. Another man said his house was "totaled," and that he was undecided about

whether to build a new home or to simply take the insurance payout and sell the land.

Notwithstanding my situation, everyone there in line was displaced in some way by the storm, which had even weakened to a Category I before the inner bands struck Orlando. The people who stayed home during the hurricane reported that there was no power for a whole week, and reports were coming on the TV of fatalities in nursing homes resulting from the outages.

Hurricane Irma caused an estimated $50 billion in damage across Florida, which works out to a little under $1 million per square mile of Florida land area. Response to the hurricane aftermath was sluggish at best, and it took quite some time to restore infrastructure throughout the area. Utility crews worked all hands-on-deck to get the grid back up, but some Floridians didn't get power back for nine days.

Earthquakes: The Silent Wildcard

When I was visiting a friend in Los Angeles a couple of years ago, I was taking a Microsoft Teams call at the kitchen table when I felt the house suddenly shake and rattle. This was caused by a 4.6 magnitude earthquake – not your run-of-the-mill tremor.

Nobody expects earthquakes to erupt (had I known they were forecasting an earthquake, I would have stayed in seismic-free Florida). This means they can happen at any time: middle of the night, during the school day, or even during major sporting events, such as the 1989 World Series in San Francisco that killed 63, injured 3,800 people and caused $6 Billion in damages. Although destructive earthquakes are rarer than tornadoes and hurricanes, they can easily cause just as much widespread damage to the grid as a hurricane but are even less predictable than tornadoes.

The infrastructure in Los Angeles is designed to withstand considerable magnitude earthquakes, such as the 4.6 that I experienced in 2024. In fact, very little damage was reported from that quake. This has much to do with the seismic withstand ratings of structures and equipment. Buildings are meant to sway and flex, and electrical equipment is specifically tested to function under considerable seismic force.

Engineering for Resilience

These experiences highlight a critical truth: disasters differ, but engineering responses must always be tailored to local risks.

- **In Florida**, engineers design for hurricanes—strong roofing, flood protection, and storm-resistant electrical systems.
- **In California**, the focus is seismic resilience—structures designed to sway, and equipment tested to withstand extreme forces.
- **In flood-prone coastal towns**, mitigation systems protect communities from rising waters.

It's not enough to design for day-to-day operation. Engineers must account for *the worst day*—the hurricane, the tornado, the earthquake—so that infrastructure isn't just standing afterward but still functioning. Incorporating regional disaster risks into design ensures safety, reduces recovery costs, and helps keep critical services online when communities need them most. ●

More Than Membership: The Power of Participation in EGSA

Scott Anderson
Chair, Membership Committee
Semler Industries

On behalf of the EGSA Membership Committee, I am delighted to welcome you to the EGSA Fall Conference. Whether you're here with us in Orlando or connecting through the pages of *Powerline,* thank you for being part of our community. Your involvement and commitment are what make EGSA thrive.

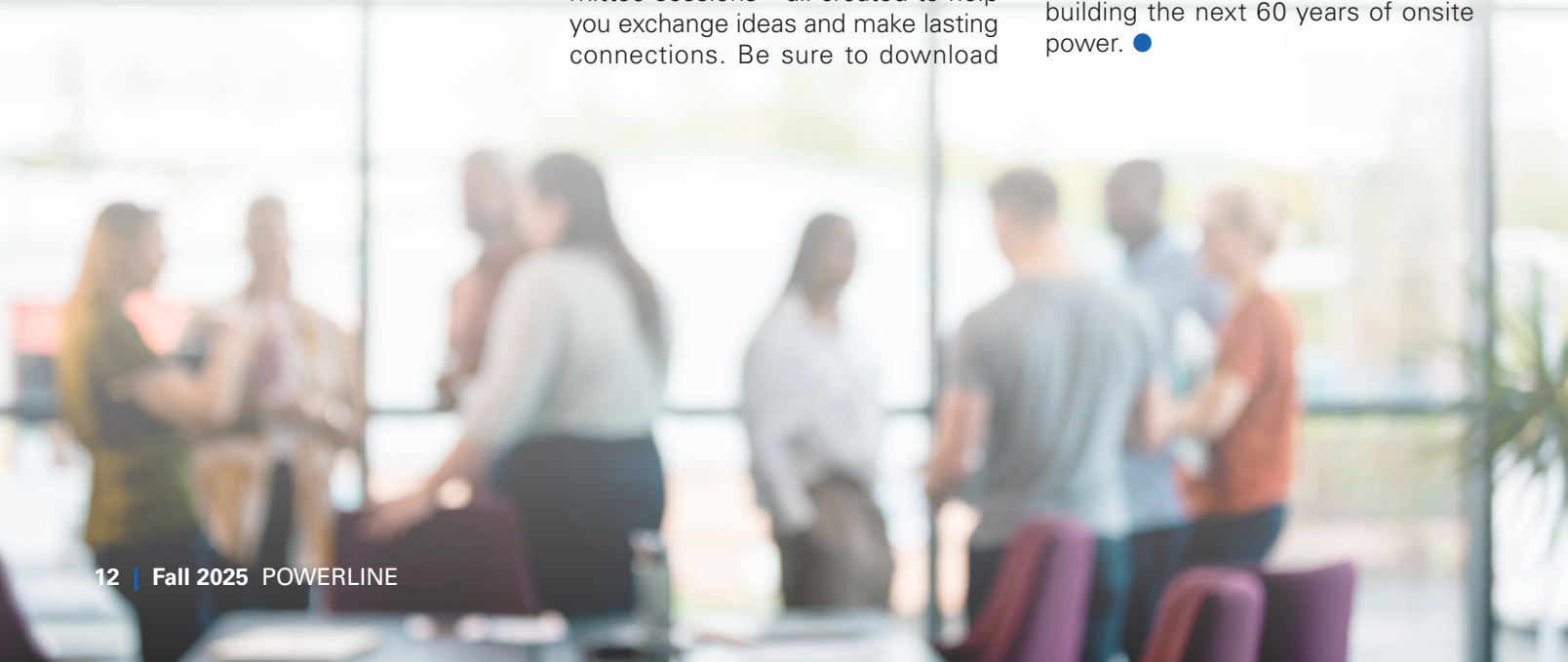
A very special welcome goes to our new members and first-time attendees. You represent the future of our association and our industry, and we are thrilled to have you with us. I encourage you to take full advantage of this week's opportunities to meet new colleagues, connect with industry leaders, and experience the many benefits of EGSA membership. This conference has been designed with you in mind—whether through committee meetings, technical sessions, or networking receptions, there's a place for everyone to learn and contribute.

For those of you in Orlando, I hope you'll immerse yourself in the energy of this event. The agenda is filled with educational forums, discussion round tables, exhibits, and open committee sessions—all created to help you exchange ideas and make lasting connections. Be sure to download the conference app so you don't miss a moment.

We are also proud to launch something new this year: the EGSA Women's Network. This inaugural reception will bring together professional women across the onsite power sector to share experiences, build relationships, and support one another. It's an important step toward strengthening and diversifying our community for the future.

This year marks EGSA's 60th anniversary—a milestone that celebrates not only our history but also the work still ahead. Membership in EGSA is about more than attending events; it's about engaging in the committees, education programs, and advocacy efforts that shape our industry. The more you participate, the more value you'll discover, both for your own career and for the community we are building together.

On behalf of the Membership Committee, thank you for being here and for contributing to EGSA's continued success. I look forward to the conversations, ideas, and energy that you will bring—because together, we are building the next 60 years of onsite power. ●



Legislation in the Heat: Proposed Federal Heat Safety Law Could Impact Generator Industry Employers

Karen F. Tynan
Shareholder, EGSA Member
Ogletree Deakins

Robert C. Rodriguez
Shareholder, EGSA Member
Ogletree Deakins

As summer temperatures continue to climb across the U.S., a new federal legislative proposal could soon bring heat illness prevention to the forefront of regulatory compliance—particularly for industries like power generation, where employees often work in enclosed rooms, unshaded outdoor sites, or near heat-generating equipment.

On July 16, 2025, U.S. Senator Alex Padilla (D-CA) introduced the Asunción Valdivia Heat Illness, Injury, and Fatality Prevention Act of 2025 (S.2298), or HIPA. If enacted, the bill would require the U.S. Department of Labor to develop and enforce a national standard aimed at protecting workers from occupational heat stress. This legislation represents a significant step forward in codifying protections that would directly impact field technicians, service crews, and manufacturing workers in the generator systems sector.

What HIPA Would Require

Under HIPA, employers would be mandated to provide workplaces free from hazardous heat conditions and to implement comprehensive programs that reduce the risk of heat-related illness and injury. Key elements of the proposed standard include:

- **Engineering controls** like ventilation, insulation, or climate-control systems—particularly relevant for generator enclosures and control rooms
- **Administrative controls** such as adjusted work schedules during extreme heat events
- **Personal protective equipment (PPE)** including cooling garments and reflective clothing, provided at the employer's expense
- **Health protocols** including monitoring, emergency procedures, and medical removal protections
- **Training requirements** for recognizing symptoms of heat stress and knowing how to respond
- **Written heat illness prevention plans,** developed with meaningful input from employees
- **Onsite essentials** such as potable water, shaded or air-conditioned cool-down areas, and acclimatization procedures

Importantly, HIPA would require these measures to be tailored to both **indoor and outdoor environments**—a key consideration for EGSA members operating in diverse job settings.

HIPA also mandates multilingual training materials, protection of wages during rest periods or medical removal, and prohibits any reduction in existing federal or state protections. Citations could be issued up to **four years** after a violation, far longer than OSHA's current six-month window.

Why This Matters for EGSA Members

While OSHA's existing rulemaking process on heat illness prevention is still ongoing, HIPA would legislate a federal standard and put it on a fast track for enforcement. Even if the bill doesn't pass, its detailed requirements provide a clear preview of what's likely to come.

For employers in the generator systems space, that means now is the time to:

- **Evaluate your exposure risks:** Are your technicians working in hot, enclosed generator rooms? Are outdoor service crews exposed to extreme heat without access to cooling areas?

- **Develop a written plan:** Document your existing or planned heat illness prevention protocols—engineering controls, work/rest cycles, emergency procedures, etc.
- **Start training:** Ensure your workforce understands heat illness symptoms and how to respond. Make materials available in languages understood by all employees.
- **Invest in mitigation:** Consider ventilation upgrades, shaded rest areas, or cooling PPE to help reduce risk proactively.

Heat Illness Isn't Just a Summer Concern

For many EGSA members, high-heat environments are a year-round reality. Whether it's indoor generator testing facilities, temporary power installations at remote job sites, or emergency service calls during a heat wave, the risks are real—and preventable.

Even if HIPA doesn't become law in its current form, its direction is clear: heat illness prevention is becoming a regulatory priority. Forward-looking companies should consider taking this moment to get ahead by implementing or strengthening their own heat safety protocols. Investing in heat illness prevention now is a smart move that protects both your workforce and your bottom line. ●

AI at Work: Real Use Cases for Industry Professionals

Jake Stratton
EGSA, Director of Technology and A.I.

AI is enabling us to be more efficient, but human input still determines the quality of the output. Across operations, product development, and leadership, professionals in our industry are using AI to save time and improve results.

Here, three members share their firsthand experiences using AI: an operations administrator streamlining tasks, a product leader accelerating development, and a vice president preparing for a client presentation.

Cate Carter

Operations Administrator at CD & Power

As part of the Operations team, I'm always looking for ways to make our workflow smoother and more efficient. One area that consistently takes a lot of time is documentation and reporting.

> *I've been using ChatGPT to help me create clear, professional communications and reports. For example, if I need to draft a summary of a project update or prepare a set of instructions, I'll start with a simple prompt like:*

"Write a step-by-step guide for technicians on how to complete X task. Keep it concise, clear, and formatted in bullet points."

The first draft usually gets me about 70% of the way there. From that point, I'll ask it to adjust tone, simplify language, or reformat into something that fits our templates. What used to take me over an hour can now be finished in fifteen minutes.

It's not about replacing my role—it's about giving me a head start. I'm able to focus on accuracy and the details unique to our business, while AI handles the structure and polish. That balance makes my work faster and my output stronger.

Steve Berry

Product and Technology Leader at MSI Data

As the Head of Product at MSI Data, I am constantly balancing strategy with execution. There are always competing demands: understanding customer feedback, analyzing the market, and planning our next product iterations.

One recent challenge was preparing a roadmap update that pulled together a large amount of scattered information: notes from customer calls, internal feedback from engineers, and market research. In the past, it would have taken me days to shape that into something coherent. I opened ChatGPT and prompted it with:

> *"Summarize and organize these notes into a product roadmap update. Highlight themes, categorize by priority, and suggest a logical order of presentation."*

The initial draft was too general, but after refining the prompt—asking for more detail in certain areas and a less formal tone—it started to look like something I could actually share with stakeholders. It grouped themes I hadn't thought to connect, and it gave me a clearer narrative flow.

The result wasn't a finished roadmap, but it was a strong framework I could refine and finalize. Instead of spending three full days structuring everything, I had a usable draft in just a few hours. That time saved allowed me to focus on what mattered most: validating priorities with my team and customers.

Lisa Carter

Vice President at CD & Power

I recently faced a challenge: preparing a presentation for a large client that would showcase our capabilities, address concerns, and build trust.

Normally, pulling this together would take several days of writing, revising, and designing slides. I decided to turn to AI for help. I started with ChatGPT, prompting it with:

> *"Create a presentation outline for a client in the onsite power industry. The goals are to highlight our company's strengths, address reliability concerns, and propose a path forward."*

The draft I received gave me a clear starting point—structured, professional, and well-organized. From there, I asked for revisions to adjust tone and add specific data points. I also used Gamma.ai to turn that outline into a formatted deck in minutes.

The combination of these tools saved me days of work. More importantly, it allowed me to focus on tailoring the content to the client instead of struggling with structure and formatting. The end result was a polished, impactful presentation that landed exactly the way I needed it to. ●

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

(Initial certification valid for 5 years. Option to extend up to 2 additional years with education/recertification credits)

Our Journeyman exam assures an employer that this technician meets or exceeds 3 years of practical field experience. It tests 61 individual areas of expertise and has been upgraded to reflect current technologies.

How to get Certified?

- Apprentice and Journeyman certifications are each achieved by taking multiple choice tests that are designed to ensure technicians have the knowledge and experience to get the job done.
- The Apprentice test is completed in one sitting at an approved testing site.
- The Journeyman test is split into four modules that will be taken separately. This allows technicians additional time to prepare for each portion of the test.

Where to get Certified?

- EGSA has approved testing centers across the world. To find out where the closest testing site is located, contact **egsa@ferris.edu**.
- If your company is interested in getting multiple technicians certified, you can also contact **egsa@ferris.edu** for more information on becoming a proctor site. All you need is an HR/ Administrative department to register as a proctor.

EGSA

Please visit **EGSA.org/Certification** for additional details on the program.

CODES & STANDARDS

Update from the Codes & Standards Committee

Jeff Jonas
Chair of the EGSA Codes & Standards Committee
Generac Power Systems

The EGSA Codes & Standards (C&S) Committee took the summer off from formal meetings, but our work continues year-round. We invite all members to join us in person at our Fall 2025 conference meeting and participate in the ULC2200 working group. ULC2200 is a safety standard for stationary engines and turbine-driven generators, and these sessions are typically attended by subject matter experts from UL Solutions, providing members with the opportunity to discuss issues directly with both peers and UL staff.

Meet the current leadership team.

- Jeff Jonas, *Chairperson*
- Brady Eifrid – *Vice Chairperson (taking over from Keith Page; thank you, Keith, for your years of dedication!)*
- Vikram Jayanath – *Secretary*
- Daniel Fischer – *EGSA Board Liaison*
- Michael Sanford – *EGSA Board Liaison*
- Mir Mustafa – *Staff Liaison*

This leadership team represents a diverse cross-section of the onsite power generation industry, committed to EGSA's mission, and working collaboratively to advance industry standards. Curious about the difference between a **code and a standard**? Just ask any one of us!

Current Codes and Standards Activity

Our committee actively participates in key codes and standards, including:

- **NFPA 37 –** Standard for Stationary Combustion Engines and Gas Turbines
  Update: First draft meeting held in May; first draft posting October 28, 2025
- **NFPA 70 –** National Electrical Code
  Update: Final issues being resolved; 2026 version releasing this fall
- **NFPA 110 & 111 –** Emergency and Standby Power Systems
  Update: Public input closed June 5; first draft posting March 25, 2026
- **UL1008 –** Safety-Transfer Switch Equipment
  Update: Preliminary review of multiple topics nearing completion
- **ANSI/CAN/UL/ULC2200 –** Stationary Engine Generator Assemblies
  Update: Several updates in process; release date TBD
- **ANSI/CAN/UL/ULC6200 –** Safety-Controllers for Power Production
  Update: Task group resolving comments from April 2025 vote

In addition to these, our members serve on other standards committees, bringing insights from their employers while sharing knowledge with the broader EGSA community. We encourage EGSA members to **suggest new codes and standards** for the committee to track.

Industry Impact

Active engagement by EGSA C&S members benefits the entire membership. For example, several member manufacturers raised concerns about the pending UL 2200A standard for fire containment testing. Thanks to committee involvement, options were identified to extend the voting deadline, preventing months-long delays and ensuring timely updates to the standard.

Get Involved

We welcome all EGSA members interested in codes and standards to attend our next meeting—virtual or in person—at the Fall 2025 Conference. Participation is a unique opportunity to influence the development of industry standards, collaborate with peers and experts, and stay informed on critical updates affecting onsite power generation.

Be part of the conversation. Bring your questions, your ideas, and your expertise—we want to hear from you!

EGSA Job Bank Guidelines

EGSA Member Benefit

- **Free Job Postings for Members:** EGSA Member companies can advertise job openings in the Job Bank at no cost, limited to positions within their own firms.
- **Non-Members and Third-Party Firms:** A $300 fee applies for job postings by non-member companies or industry employment services.
- **Additional Options:** Blind box ads (using the EGSA Job Bank address) are available upon request, and company logos can be included for an extra fee.
- **Posting Details:** Ads are limited to ~50 words.

Visit **EGSA.org/Careers** to post!

**EGSA reserves the right to refuse any advertisements.*

The Fortune Is in the Follow-Up: Turning Trade Show Leads Into Revenue

Kevin Anderson
CEO
Power House Resources

A packed trade show booth is a great start—but it's just that: a start. The real measure of success isn't how many business cards you collect or how many people stopped to chat. It's what you do next.

After years of attending industry events, I've seen one consistent truth: **most companies drop the ball after the event.** They spend weeks preparing their booth, spend thousands on travel and materials, and then... go quiet. No follow-up. No engagement. No conversion strategy.

That's where the real money is lost.

Here's how I make sure every trade show leads to real revenue—not just warm handshakes and forgotten conversations.

1. Sort Your Leads Within 48 Hours

As soon as I return from a trade show, I set aside time to organize every contact I've gathered. I break them down into three buckets:

- **Hot Leads:** Decision-makers who showed interest and have an immediate or upcoming need.
- **Warm Leads:** Engaged visitors who weren't quite ready but fit our ideal client profile.
- **Cold Leads:** General contacts or giveaways-only visitors who need more nurturing.

This simple step helps me prioritize where to focus my energy—and avoid the common trap of treating every card like a one-size-fits-all lead.

2. Personalize Your First Touchpoint

Here's where most companies get lazy. They send out a generic "Thanks for stopping by our booth" email, blast everyone on the list, and hope someone bites.

I do the opposite.

For hot and warm leads, I reference the actual conversation we had:

"It was great meeting you at [Trade Show Name]—I remember you mentioned needing additional crews for the fall turbine outage. Let's find time to discuss how we can help you staff ahead of schedule and avoid last-minute delays."

This kind of specific, value-driven follow-up sets you apart immediately. It shows you listened, you understand their business, and you're not just spraying emails hoping for a reply.

3. Create a Follow-Up Campaign, Not Just a Message

Follow-up isn't a one-and-done move; it's a campaign. I typically map out a 2-week follow-up cadence that includes:

- **Day 1:** Personalized email or LinkedIn message referencing our conversation.
- **Day 3:** Phone call (voicemail is fine) with a value-first statement.
- **Day 6:** Send a case study or resource relevant to their specific pain point.
- **Day 10:** Light nudge—"Just circling back on our conversation from [event name]..."
- **Day 14:** Final touch—offering a quick 15-minute consult or quote.

This keeps the momentum alive without being pushy—and gives them multiple ways to re-engage when the timing is right.

4. Don't Just Sell—Anchor the Pain of Inaction

In my follow-ups, I don't just highlight what we offer—I emphasize what it costs them not to act. Especially in industries where downtime, delays, or unfilled jobs equal lost revenue.

Instead of saying:

"We provide qualified turbine staffing crews for nationwide projects."

I'll say:

"Most plant managers don't realize that a 3-day delay in turbine startup can cost upwards of $150,000 in lost production. Our team helps eliminate those gaps before they happen."

This moves the conversation from "what do you offer?" to "how can you prevent my losses?"

That's how you build urgency without discounting.

5. Measure What Actually Converts

After the event, I track every closed deal back to its original source. Which leads converted? What did they respond to? Was it the in-person conversation, the second email, or the resource I sent?

This gives me real data to refine my next event strategy—and shows me who's just browsing vs. who's buying.

The trade show may be over, but your strategy should just be getting started.

Final Word

Trade shows are expensive, time-consuming, and full of potential. But that potential dies in silence.

The ones who win aren't always the ones with the flashiest booth or the biggest team. It's the ones who follow up with precision, presence, and purpose.

The fortune is in the follow-up. Always has been. Always will be. ●

How the Big Beautiful Bill is Reshaping the Future of Distributed Energy and Microgrids

Ryan Bird
ComAp Microgrid Sales Manager & EGSA Microgrid Committee Vice-Chair

In July the passage of the "One Big Beautiful Bill Act" (OBBBA) sent shockwaves through the energy sector. With sweeping changes to clean energy tax incentives, the bill has triggered a seismic shift in how microgrids will be signed, financed and deployed in the United States. While some technologies like solar will face headwinds, others, like natural gas generation and Battery Energy Storage Systems (BESS), are poised to thrive in the new policy landscape.

The OBBA significantly modifies the Inflation Reductions Act's (IRA) clean energy provisions. It tightens domestic content requirements, imposes new qualifications deadlines and phases out key federal subsidies like the Investment tax Credit (ITC) and Production Tax Credit (PTC) for solar and wind projects over the next few years.

The intent of the bill is clear: Bolster domestic fossil fuel production and reduce federal support of renewable energy.

Microgrids: Reconfigured & Poised for explosive growth

Despite the policy shift resulting from the OBBBA, the demand for microgrids will continue to grow.

- **Resilience and Reliability:** As we enter into hurricane and wildfire season, climate events and grid instability mean businesses and communities will turn to microgrids for energy security
- **Cost Optimization:** Hybrid microgrids enable peak shaving and energy arbitrage – pulling power from batteries and local generation during high-cost hours.
- **Remote Access:** Microgrids rain essential for off-grid locations, islands and even places in the continental US where the power company has barriers to traditional grid power.

Fossil Fuels Find Favor: Natural Gas and Diesel Engines poised to gain ground in Microgrids

With the rollback of solar and wind incentives, traditional generation assets could see increased market share. Here a ComAp we are seeing an increase in microgrids in states like California or Illinois where time-of-use pricing penalizes late-day grid consumption or for locations where there is constrained limited supply of grid energy, so businesses are increasingly generating and storing their own power and since the OBBBA did NOT remove incentives for energy storage, traditional generation paired with BESS could surge in popularity.

Other states are looking to private businesses to be ready to respond and supply stored or generated electricity to grid in times of peak demand.

Solar developers are facing strong headwinds. Utilities are tightening interconnection standards, making it harder to deploy solar without complementary assets like batteries and gensets. Additionally, the repeal of the ITC and PTC, combined with stricter domestic content rules may make solar lead microgrid projects. With the demand for microgrids growing, EGSA members might see increased opportunity to lead the way with hybrid microgrids anchored by on-site fossil fuels. Companies like ComAp are leading the way with a controls architecture that marries renewables, storage and fossil generation.

The Road Ahead for EGSA Members

The OBBBA has already started to reshape the energy landscape, but it hasn't derailed the microgrid movement. Instead, it has forced a recalibration – one that favors hybridization, resilience, and economic pragmatism.

Microgrids are no longer just about clean energy; They're about smart energy. ●

About the author: Ryan Bird is vice-chair of the EGSA Microgrid committee & Microgrid sales manager for ComAp controls. Ryan has been part of the energy transition for years with a background in commercial solar, fuel cells and microgrid development. He's also a published playwright and father of 2. If you have questions on microgrid development, he can be contacted at ryan.bird@comap-control.com

OCTOBER 5–7 • Royal Pacific Resort • Orlando, FL

This year marks a historic milestone as the Electrical Generating Systems Association (EGSA) celebrates **60 years of powering the onsite energy industry.** The EGSA Fall 2025 Conference in Orlando is set to be one of the most dynamic gatherings in the association's history—bringing together top industry leaders, technical experts, and innovators for three days of learning, networking, and celebration.

PROGRAM HIGHLIGHTS

KEYNOTE SESSIONS

Secrets of the 6%: How to Become More Resilient in Business and Life

Monday, Oct. 6 | 8:00–9:30 am

Presenter: **Dr. Michelle Rozen**

A high-energy, research-backed session on resilience, adaptability, and leadership in high-pressure environments.

Dr. Michelle Rozen

Sponsored by

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The Onsite Power's Role in Preparation, Relief, and Recovery

Tuesday, Oct. 7 | 8:15–9:00 am

Panel with Joseph Dickson (CAT-Ring Power), Chris Reynolds (United Rentals), and moderator Lee Newton (Bay Power Solutions)

Industry experts discuss the essential role of onsite power systems in disaster response and recovery.

EDUCATIONAL SESSIONS

Education has always been the cornerstone of EGSA's mission, and this year's conference features a **diverse lineup of technical sessions designed to equip attendees with actionable knowledge**. Topics span the most pressing issues facing the industry today, including:

- **Predictive AI for Infrastructure Failures –** leveraging artificial intelligence and remote monitoring to anticipate and prevent outages.
- **NFPA, NEC, and OSHA Code Updates –** ensuring compliance with the latest electrical safety standards.
- **FEMA P-1019 Best Practices –** improving reliability of emergency power systems for critical facilities.
- **Future-Proofing Cooling Systems –** design and retrofit strategies for air-cooled heat exchangers in a warming climate.
- **Disaster Preparedness and Rental Power –** how rental generators fit into resilience and continuity planning.
- **Preventing Electrical Disasters –** the role of higher education in shaping skilled power professionals.

In addition to these sessions, the **Engineering Symposium** offers six CEU-eligible courses for engineers, ranging from generator sizing and economics to data center applications and healthcare commissioning requirements. Whether you are in design, operations, service, or management, you'll find **education that directly applies to your daily work** and future challenges.

EXHIBIT HALL

A vital part of the Fall Conference experience is the **Exhibit Hall**, featuring **40 leading companies and orga-**

nizations across the onsite power spectrum. From manufacturers and distributors to service providers and technology innovators, the Exhibit Hall is your one-stop destination to:

- Explore the **latest products, equipment, and technologies** shaping the industry.
- Connect with suppliers and partners who can help solve your business challenges.
- See live demonstrations and have direct conversations with technical experts.
- Discover innovative solutions to improve efficiency, compliance, and resilience in power generation.

The Exhibit Hall also serves as a **central networking hub**, offering dedicated time for attendees to engage with exhibitors, meet potential collaborators, and explore partnerships that extend beyond the conference.

COMMITTEE MEETINGS

EGSA Committees each play a role in how EGSA moves forward in various areas over time. The conference is an opportunity for EGSA Committees to meet in person. Please see the schedule below:

- **UL 2200 Sub-Committee**
  Sunday, Oct 5
  11:00 am – 12:00 pm
- **Engineering Sub-Committee**
  Monday, Oct 6
  7:00 am – 8:00 am
- **Microgrid and Renewables Committee**
  Tuesday, Oct 7
  11:00 am – 11:45 am
- **Codes and Standards Committee**
  Tuesday, Oct 7
  11:00 am – 11:45 am
- **Distributor/Dealer Committee**
  Tuesday, Oct 7
  12:00 pm – 1:00 pm
- **Education Committee**
  Tuesday, Oct 7
  12:00 pm – 1:00 pm

NETWORKING & SPECIAL EVENTS

The Fall Conference isn't only about education—it's also about connections. Attendees can take part in a variety of unique activities designed to build relationships while experiencing Orlando:

Kennedy Space Center Tour

Kick off your conference experience with an inspiring trip to the birthplace of America's space program. Explore historic launch sites, see the rockets that made history, and learn about the future of exploration at this one-of-a-kind destination.

Sponsored by PEG

New Member Reception

We're excited to welcome new members and first-time conference attendees at our New Member Reception. Join us to connect with peers, meet EGSA leadership, and learn more about how to get the most out of your membership.

Welcome Reception

Join us in the Exhibit Hall to kick off the conference with networking, exhibits, and refreshments in a relaxed setting.

Sponsored by Modasa

Monday Morning Move with MurCal

Start the day with energy and camaraderie during a group run/walk around the resort grounds. Whether you're a runner, a walker, or simply looking to enjoy the fresh morning air, this activity offers a relaxed setting to connect with fellow attendees.

Sponsored by MurCal

Spouse & Significant Other Program: Titanic Exhibition

Guests are invited to step back in time with a guided visit to *Titanic: The Artifact Exhibition.* With more than 300 artifacts, full-scale room recreations, and costumed actors, the program immerses participants in the story of the Titanic. A private brunch rounds out this memorable experience.

Nemours Children's Hospital – Gearhead Tour

The Nemour's engineering team tour will cover the generator room, normal switchgear, and emergency switchgear—highlighting backup power, standard distribution, and system resiliency for uninterrupted hospital operations.

Women's Network Reception

The EGSA Women's Network is launching at the 2025 Fall Conference with its inaugural event — a networking reception for professional women in the power generation industry. During the reception, we'll share our plans and vision for the 2026 initia-

tive while creating space to connect, share experiences, and build a supportive, empowering community of women across all roles in the onsite power sector.

EGSA Luau Celebration

Experience a lively evening of island-inspired food, drinks, and entertainment. Connect with peers in a festive, tropical setting that captures the spirit of aloha.

Sponsored by IGSA

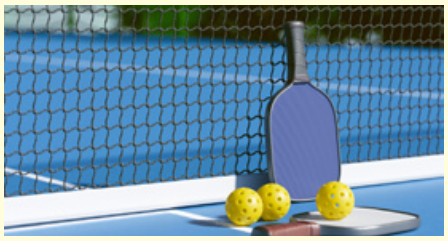
United Against Poverty Volunteer Activity

Join fellow attendees in giving back to the Orlando community through a hands-on service project with United Against Poverty. Together, participants will support local families by helping provide access to food, education, and training resources.

Sponsored by Bay Power Solutions

Wild Florida Airboat & Wildlife Park

Experience an unforgettable Florida adventure. Soar across the waters of Cypress Lake on a narrated airboat ride through pristine Everglades wilderness, then explore a wildlife park filled with alligators, birds, and exotic animals.



Pickleball Tournament

Enjoy friendly competition and team spirit in EGSA's annual Pickleball Tournament. All levels of play are welcome, making it a lively and inclusive way to network while having fun.

Sponsored by HOTSTART and MALL Energy

Topgolf Orlando

A favorite for casual networking, Topgolf offers great food, drinks, and a relaxed environment where you can connect with peers. No golf skills are required—just a willingness to have fun and mingle with colleagues.

Sponsored by Tramont Manufacturing

Closing Party

End the conference in style at a rooftop venue with sweeping views of Orlando. Drinks, appetizers, and interactive games create the perfect backdrop to celebrate new connections and a successful conference.

Sponsored by Duthie Generator Services and Philips and Temro

EGSA 60th Electrical Generating Systems Association Est. 1965

Sponsored by meccalte

EGSA 60th Anniversary Luncheon

Celebrate six decades of EGSA at our 60th Anniversary Luncheon during the Fall Conference. Join us as we honor the history of our association, recognize the members who built our community, and look ahead to the future of onsite power.

Thank you to our 2025 Fall Conference Sponsors & Exhibitors!

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EGSA MEMBER PROFILE

Export-Import Bank of the United States (EXIM): *Empowering U.S. Power Exporters*

Looking Ahead
As global demand for reliable energy solutions grows, EXIM is deepening its commitment to supporting U.S. companies in the power generation sector. After partnering with EGSA on a PowerTalk Webinar earlier this year, the agency is eager to build stronger connections with members pursuing international deals. In 2025, EXIM will continue to expand outreach to small and medium-sized U.S. businesses, helping them compete globally with government-backed financing tools. For EGSA members, this means new opportunities to enter international markets with confidence, backed by resources designed to reduce risk and unlock growth.

Company Overview
Founded in 1934 and headquartered in Washington, D.C., the **Export-Import Bank of the United States (EXIM)** is the official export credit agency of the U.S. government. Acting President and Chairman **James C. Cruse**, Acting First Vice President and Vice Chairman **James Burrows**, and Director **Spencer Bachus III** lead the organization.

EXIM supports U.S. exporters across the entire power generation industry by offering financing solutions that level the playing field in highly competitive global markets. Its suite of products and services includes:

- **Export Credit Insurance –** Protects exporters against buyer nonpayment and enables more competitive open-account terms.
- **Working Capital Loan Guarantees –** Gives banks the assurance to extend larger credit lines so exporters can take on bigger or multiple international orders.
- **Medium-Term Financing –** Provides foreign buyers with repayment terms up to five years while ensuring U.S. companies are paid.
- **Make More in America Initiative (MMIA) –** Strengthens U.S. supply chains by financing domestic investments like new equipment, facilities, or modernization projects.

EGSA Involvement
EXIM joined EGSA in 2025 and quickly began engaging with members, hosting a PowerTalk Webinar to share how exporters can leverage government-backed financing. The agency values EGSA for its strong network of stakeholders across the onsite power industry and views the association as a platform to connect with businesses seeking global opportunities.

Operations & Customers
EXIM primarily serves **U.S. small and medium-sized businesses, with particular focus on energy and manufacturing companies**, that want to expand their reach into global markets.

Its workforce includes Regional Directors (RDs), trade finance specialists who provide free consultations to businesses in their designated territories. These RDs help companies navigate export opportunities and access EXIM's suite of financing and insurance solutions.

Industry Trends & Challenges
As international demand for power generation equipment and services grows, U.S. companies face steep competition from foreign exporters often supported by their own governments. EXIM addresses this challenge by partnering with U.S. lenders, reducing risk for exporters, and providing innovative financing solutions that allow American companies to compete head-to-head in global markets.

EXIM stays innovative by:

- Expanding tools and resources available to exporters.
- Offering education and guidance on international trade.
- Connecting businesses with a nationwide network of federal export resources.
- Protecting U.S. exporters against nonpayment while ensuring access to working capital.

The result is a stronger, more resilient foundation for U.S. power companies to succeed internationally.

Value & Future of EGSA Membership
Through its new membership, EXIM has already gained valuable connections with U.S. energy manufacturers and distributors.

Looking ahead, EXIM is eager to expand its collaboration with EGSA by providing members with the knowledge and tools needed to grow globally. The agency sees EGSA as a key ally in advancing its mission to help U.S. businesses win in the international marketplace. ●

Contact EXIM
@eximbankus

@eximbankus

Breathing Life into Organizational Values: A Blueprint for Accountability

By Sam Silverstein

In the realm of organizational success, accountability and being accountable are the cornerstones upon which values find their true meaning. Every organization identifies a set of values that reflect its essence, but it's in the embodiment of these values that they become real. Let's explore the art of effectively modeling and teaching organizational values, creating an accountable culture where these values are non-negotiable, and steps to help every organization member understand and live these values, ultimately becoming accountable and known for the values they live by.

Modeling and Teaching Organizational Values:

- **Lead by Example:** Accountability begins at the top. Leaders must be the living embodiment of the values they want to instill. When leaders consistently exhibit these values in their actions and decisions, they set the standard for the rest of the organization.
- **Communication:** Values should be communicated clearly and consistently throughout the organization. Leaders should articulate why these values matter and how they align with the organization's mission and vision.
- **Training and Development:** Implement training programs focusing on the values and their practical application. Provide real-life examples and scenarios to help employees understand how these values translate into everyday actions.

Creating a Non-Negotiable Value Culture:

- **Accountability Framework:** Develop an accountability framework that outlines the expectations regarding the values. This should include specific behaviors and actions that reflect each value.
- **Alignment with Performance Management:** Integrate the values into performance management processes. Employee evaluations and feedback should consider how well individuals embody the values in their roles.
- **Protect the Values:** If you are modeling and teaching the values, when someone chooses not to align with the values, you can coach them up. If you do not see a change in behavior, you protect the values by allowing that person to go somewhere where that behavior is acceptable. Your values are non-negotiable.

Helping Everyone Understand and Live the Values:

- **Education:** Continuous education is key. Ensure that all employees, from new hires to long-standing members, receive ongoing training about the values and their significance.
- **Open Dialogue:** Create an environment where employees feel comfortable discussing how the values relate to their work. Encourage open dialogue and questions to deepen understanding.
- **Feedback Loops:** Establish feedback mechanisms that allow employees to provide input on how the organization is living its values. Use this feedback for continuous improvement.

Becoming Known for Living the Values:

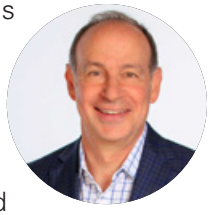
- **Consistency:** Consistently living the values is paramount. Every interaction, decision, and action

should reflect these values. When consistency is the norm, the organization becomes known for it.

- **Storytelling:** Share stories and anecdotes that illustrate how the values have made a difference. These stories can be powerful tools to convey the impact of the values to both internal and external audiences.
- **Transparency:** Be transparent about the organization's commitment to its values. This includes sharing the steps taken to ensure accountability and how the values guide strategic decisions.
- **External Communication:** Communicate the organization's values in its external messaging, such as marketing materials, social media, and public statements. Showcasing values externally reinforces the commitment to them.

Organizational values are not just words on a wall; they are the soul of an organization. To make these values real, leaders must model and teach them effectively. Creating a non-negotiable value culture involves embedding the values into every aspect of the organization. To help everyone understand and live the values, education, open dialogue, and feedback loops are essential. When an organization consistently lives its values, when the values truly are non-negotiable, it becomes known for them, setting it apart and attracting like-minded individuals who share the same commitment to these guiding principles. Ultimately, an organization's values are the compass that leads it toward a future of accountability, purpose, and success. ●

About the Author



Sam Silverstein is a globally recognized authority on accountability and leadership, committed to helping individuals and organizations achieve exceptional success. As the founder of The Accountability Institute™, he works with leaders to build stronger accountability and cultivate impactful organizational cultures. The author of 12 books, including *The Accountability Advantage* and *Non-Negotiable*, Sam has been named one of the World's Top Organizational Culture Professionals by Global Gurus. A former executive and business owner, he now partners with companies, government agencies, and entrepreneurs worldwide to enhance engagement, productivity, and growth through transformative leadership practices.

Thriving Under Pressure: How the Power Generation Industry Can Adapt and Succeed in a World That Won't Stop Changing

By Dr. Michelle Rozen

If you're in the electrical generating systems industry, you don't need me to explain what pressure feels like. You already know. It's the pressure of keeping critical systems running without interruption. It's the pressure of tighter regulations, heavier client demands, and rapidly advancing technologies. It's the pressure of knowing that when something fails, the consequences ripple out quickly - hospitals, data centers, homes, and businesses all depend on you.

But here's the truth: pressure isn't just something you face in your industry. It's something you face in your life. The same mindset that helps you troubleshoot under stress, meet deadlines, or reassure clients is the mindset that helps you show up for your family, navigate uncertainty in your personal finances, or handle the unexpected curveballs life throws at you.

The difference between those who merely **survive under pressure** and those who actually t**hrive under pressure** isn't luck, talent, or resources. It's mindset. And mindset, like a system, can be built, tested, and strengthened.

Adaptability Is the New Reliability

Your industry has always been measured by reliability. Can the system handle the load? Will the backup kick in when it's needed most? But as the world changes faster than ever, adaptability has become just as important as reliability.

Think of it like a generator under shifting loads. A reliable system isn't one that runs the same way under perfect conditions; it's one that adjusts seamlessly when demand spikes or conditions change. People are the same. You can't control every challenge, but you can build the adaptability to respond without breaking.

In my research on how people adapt to AI in the workplace, I found that the biggest obstacle wasn't technical knowledge, it was emotional adaptability. People resisted change not because they couldn't learn, but because they felt overwhelmed, uncertain, or fearful. The same is true in your world. Success isn't only about systems or machines, it's about the human side.

Adaptability isn't a trait you're born with. It's a skill you strengthen every time you face pressure and choose to respond with flexibility rather than rigidity.

The Law of Specification

One of the most important findings from my research on the *6% Club* was this: people who consistently reach their goals think and speak differently. Instead of saying, "We need to be better," they say, "We will complete X task by X time." Instead of vague intentions, they create specific, concrete actions.

Your brain is like an electrical system. Vague commands are like static, they don't create a clear signal. Specific instructions are like clean current, they tell your brain exactly what to do.

So if you're under pressure, whether at work or at home, don't just say, "I need to handle this better." Say, "For the next 20 minutes, I'm focusing on this one task." Don't say, "I'll spend more time with my family." Say, "Tonight at 7, I'm putting my phone away for one hour."

Specificity is what turns stress into progress. It's the wiring that makes the current flow.

The 0–10 Rule: A Game Changer for Prioritization

In every corner of your industry, there's more to do than time to do it. Regulations, client demands, system checks, unexpected breakdowns- it can all feel urgent, all at once. That's where the **0–10 Rule** becomes a game changer.

The 0–10 Rule gives you and the people around you a fast, powerful way to sort through the noise and zero in on what matters most. When you use it, you're not just reducing stress — you're creating alignment. Suddenly everyone is speaking the same prioritization language.

Imagine you're on a team call and three different issues come up: a minor client complaint, a potential compliance risk, and a system showing early signs of failure. All three could feel equally urgent in the moment, especially under pressure. But with the 0–10 Rule, the team can quickly align. That client complaint might be a

3, the compliance issue might be an 8, and the system alert is a 10. Now you've created instant clarity. Everyone knows where to focus first, and nobody wastes energy fighting about priorities.

This matters just as much at home. Think about the daily frustrations that eat at you- traffic jams, a long line at the store, a rude email. Most of those are a 1 or a 2 at best. Yet if you don't have a system for filtering them, you'll burn energy like they're a 9 or 10. The 0–10 Rule stops that energy drain. It keeps you from overloading yourself on things that don't deserve your full capacity.

And here's the real magic: when everyone around you adopts this language, pressure becomes easier to manage collectively. A team can say, "This issue is a 9, let's give it our full focus," and everyone instantly understands. A family can say, "This problem is a 2, let's not blow it out of proportion."

In the same way that your systems need standard voltage to operate efficiently, your people need standard language to prioritize efficiently. The 0–10 Rule creates that standard. It cuts through emotion, reduces conflict, and lets you put your energy where it truly counts. That's what thriving under pressure looks like- not trying to give everything 100%, but aligning your load to what matters most.

The 20-Minute Rule: Breaking Paralysis

Pressure often creates paralysis. You know what you should do, but the weight of it feels so overwhelming you don't start. That's why I recommend the **20-Minute Rule**.

Commit to just 20 minutes of focused action on whatever feels overwhelming. Not two hours, not the whole project- just 20 minutes.

It works the way priming works in your world. A system doesn't always need full power to start; it just needs a spark. Once you begin, momentum takes over.

This rule works just as well for fixing a client issue as it does for cleaning a messy garage at home. The key is action, not perfection. Starting breaks the weight of pressure faster than anything else.

The Law of Feedback Loops

Every system has sensors. They detect load, temperature, vibration, and the system adjusts accordingly. Without feedback, the system runs blind. Humans are no different.

In my AI adaptation research, the companies that thrived under pressure were the ones that created fast feedback loops: simple surveys, quick check-ins, open conversations. They didn't just roll out a system and walk away. They asked: *What's working? What's not?* And then they adjusted.

If you want to thrive under pressure, build feedback loops into your work and your life. Ask your clients, "What's one thing we can do better for you?" Ask your team, "What's one thing I can change to support you?" Ask your family, "What's one thing I can do this week that would make your life easier?"

Pressure doesn't go away when you ignore it. It eases when you listen, learn, and adjust.

Fueling Yourself Under Pressure

Here's something you know from your own industry: no system runs without fuel. You would never expect a generator to keep running indefinitely without maintenance. Yet many of us expect ourselves to function under constant pressure without refueling.

In my work with executives, teams, and individuals, I see over and over that burnout isn't caused by pressure itself, it's caused by neglecting to recharge. Rest, movement, healthy food, time with people you care about, these are not luxuries. They're maintenance.

When you refuel, you're not taking time away from success, you're making success possible. Just like preventive maintenance keeps systems from breaking under load, taking care of yourself keeps you from burning out under pressure.

The Human Circuit: Thriving Together

Here's the bigger truth: no one in your industry works alone. A CEO's decisions only matter if the team carries them out. A technician's work only

matters if clients understand its value. Sales only matters if the systems perform.

You are like a circuit- every wire matters, every connection counts. When trust, adaptability, and resilience flow freely across the circuit, the whole system thrives. When connection breaks down, the whole system falters.

Thriving under pressure isn't about being the toughest person in the room. It's about creating flow between people - clarity, trust, communication, support. That's how organizations adapt. That's also how families and communities adapt.

Get Ready to Thrive in Work and Life

The world isn't going to stop changing. Pressures aren't going away. But you don't have to live in survival mode.

You have tools: the **0–10 Rule** to prioritize what matters most, the **20-Minute Rule** to break paralysis, the **Law of Specificity** to create clarity, feedback loops to adapt, and self-fueling to stay strong. These are not just business tools. They are life tools.

Your industry quite literally powers the world. But you have the chance to do more than keep the lights on. You have the chance to thrive under pressure, not just at work, but in every part of your life.

And when you thrive in a world that won't stop changing, you inspire to others around you to do the same.

About the Author

Dr. Michelle Rozen, widely known as The Change Doctor, is a behavioral scientist, bestselling author, and one of the most sought-after keynote speakers for top global brands. Her groundbreaking research on goal execution and adapting to AI has been featured worldwide and is transforming the way leaders and teams thrive in times of change. Dr. Rozen specializes in guiding corporations through mergers, acquisitions, technological disruption, leadership transitions, and market shifts-equipping organizations with science-backed strategies to lead with clarity, resilience, and results. Learn more at www.DrMichelleRozen.com.

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Embrace Technology to Grow Your Service Business

Andy Briggs, President of Power Telematics, Inc.

The service component of a generator company should be the most profitable segment of the business. For many, service work is 100% of your business. Therefore, it's imperative to focus on ways to grow service revenue and maximize the profitability of your service operations. Moving beyond the traditional methods of running a service business is essential for long-term success because the traditional way we have always run our service business simply cannot be sustained if you want to grow. Do you have a vision of what your service business will look like five years and ten years from now? Evolving and adapting your service business is key to your future success. And the best way to do so is to leverage technology.

"To improve is to change; to be perfect is to change often." – Winston Churchill

Power Systems Market Overview

The power systems industry is strong and growing. It is a very lucrative industry to be a part of and most companies in our industry are experiencing growth each year. Below are some relevant statistics on our industry's growth.

Power Systems Research provides comprehensive data on our industry, including generator production, generator in-service population and growth trends. Thank you to Joe Zirnhelt, President of Power Systems Research, and his team for providing the details below (www.powersys.com).

NORTH AMERICAN GEN-SET POPULATION DIESEL & NATURAL GAS/LPG – 2024

OEM Power Range	Mobile	Stationary	Grand Total
<10kW	1,395,277	1,137,734	2,533,011
10-20kW	581,574	1,151,316	1,732,890
21-50kW	427,775	487,668	915,443
51-300kW	387,289	910,051	1,297,340
301-500kW	11,235	163,396	174,631
>500 kW	13,641	231,235	244,876
Grand Total	2,816,791	4,081,400	6,898,191

Source: Power Systems Research PartsLink™

Mobile Includes
Portable Generator Sets
RV Generator Sets
Semi-Truck Aux Power Units
Trailer Mounted Generator Sets

Stationary Includes
Industrial Generator Sets
Residential Generator Sets

Fuels Included
Diesel
LPG & Natural Gas
(Does Not Include Gasoline)

2024 NORTH AMERICAN GEN-SET PRODUCTION (<500KW) - ALL FUELS

Gen-Set Rating	Diesel	Gasoline	LPG & Natural Gas	Total
<10kW	41,368	799,133	105,129	945,630
10-20kW	22,717	10,370	108,147	141,234
21-50kW	19,509	710	55,975	76,194
51-300kW	44,882		32,054	76,936
301-500kW	7,824		2,684	10,508
Total	136,300	810,213	303,989	1,250,502

Source: Power Systems Research OE Link™

Gen-Set Rating	Mobile	Stationary	Total
<10kW	858,590	87,040	945,630
10-20kW	33,932	107,302	141,234
21-50kW	13,252	62,942	76,194
51-300kW	11,850	65,086	76,936
301-500kW	501	10,007	10,508
Total	918,125	332,377	1,250,502

Source: Power Systems Research OE Link™

Mobile Includes
Portable Generator Sets
RV Generator Sets
Semi-Truck Aux Power Units
Trailer Mounted Generator Sets

Stationary Includes
Industrial Generator Sets
Residential Generator Sets

Fuels Included
Gasoline
Diesel
LPG & Natural Gas

OUTLOOK FOR NORTH AMERICAN GEN-SET PRODUCTION (<500KW) - ALL FUELS

Gen-Set Rating	2022	2023	2024	2025	2026
<10kW	850,198	929,819	945,630	960,463	918,606
10-20kW	122,364	136,342	141,234	145,885	142,405
21-50kW	65,926	73,664	76,194	78,679	76,561
51-300kW	67,223	75,494	76,936	79,368	78,365
301-500kW	9,579	10,363	10,508	10,779	10,919
Total	1,115,290	1,225,682	1,250,502	1,275,174	1,226,856

Source: Power Systems Research OE Link™

Products Includes
Portable Generator Sets
RV Generator Sets
Semi-Truck Aux Power Units
Trailer Mounted Generator Sets
Industrial Generator Sets
Residential Generator Sets

Fuels Included
Gasoline
Diesel
LPG & Natural Gas

What the Data Shows

Today, there are over 6 million existing generators (not including gasoline portables). If we also subtract the number of small portable diesel & LP generators, RV generators, and semi-truck auxiliary power units, there are conservatively over 5 million existing, permanently installed and towable generators in North America that require professional service. On top of that, over 350,000 generators in these categories are being sold each year, adding to the population of generators that need professional service.

While the industry is growing, many generator service companies are struggling to keep up. Most service businesses, particularly those focused on commercial and industrial generators, are still run on the same principles and processes that we have used for decades. However, there have been major advances in technology that can help you to better utilize your technicians with improved efficiency and increased productivity. Embracing technology will enable you to overcome today's growth challenges and substantially increase profitability.

GROWTH CHALLENGE #1: Shortage of Skilled Technicians

The most significant growth challenge we face in our industry is the shortage of qualified technicians, especially in the commercial and industrial segments. Technicians in our field must be proficient with engines, electricity, electronics, and fuel systems. They also perform this highly skilled job in often adverse conditions. We must face the fact that most young adults are not pursuing skilled trades professions and many of our existing technicians are aging and retiring. In essence, there are simply not enough technicians in the industry today to properly service the existing equipment AND not enough new technicians entering the profession to keep pace with the growth. While there are many efforts to get young adults interested in becoming professional power systems technicians, the shortage of skilled technicians will not go away any time soon. Simple math…If there are not enough technicians today and not enough entering the profession, the traditional service business model of "growth by adding technicians" is no longer a viable approach. We must find new methods for service companies to serve more customers per technician AND grow revenue and profitability.

GROWTH CHALLENGE #2: Inadequate Efficiency, Productivity, and Profitability

Most generator service companies are not as profitable as they should be. Company leaders and service managers are typically too busy "working in the day-to-day" of their business to step back for a moment to "work on" the business. There is a tried and true saying that "what gets measured gets improved."
There are many key metrics to analyzing the effectiveness of your service operations. These include labor gross profit, parts gross profit, productivity rate, efficiency rate, effective billing rate, absorption rate, parts/labor ratio, and vehicle expense ratio, just to name a few. Companies that track and maximize key metrics are stronger and more profitable. A few key minimum benchmarks are highlighted below. How does your business compare to these?

Labor Gross Profit Margin =
65%+ (Labor Gross Profit/Labor Revenue)

Parts Sales Gross Profit Margin =
35%+ (Parts Gross Profit/Parts Revenue)

Productivity Rate =
85% (Technician Hours Billed/Total Hours Paid to Technicians)

Absorption Rate =
100%+ (Total Labor & Parts Gross Profit/Total Company Expenses)

There are many more key performance indicators that are worth analyzing and tracking. There is opportunity for improvement in most service businesses. However, there are changes that can be made now to drive better performance.

Source: Service Management in An Equipment Dealership by George M. Keen – Wise Wolf Consulting, LLC (Available on Amazon)

Recommendation: Treat Available Technician Hours Like Gold! There are a limited number of technicians on staff and a limited number of available technician hours. Many service departments are graded on "how many hours are applied to work orders vs. unapplied" or "how many hours were billed out" each month. While these are very important measurements, we must focus more on how "profitable" those technician hours are. Since there is a finite number of technician hours available, focus on ways to maximize the profitability of those "hours bought" every day. If we view the available technician hours as an "investment and asset," then we should do everything we can to get the highest return possible on every hour.

What is the Answer?

The key to long-term growth and success is utilizing technology that provides a higher level of service, can help you serve more customers, and maximize service efficiency and profitability. We must focus on growth strategies now that will provide significantly better performance and value for your company going forward.

The Future Relies on Remote Monitoring

Remote monitoring is the future of field service. It is already occurring in many other service industries. Several generator manufacturers are offering remote monitoring. Many generator service companies have already adopted monitoring as a fundamental part of their service business. Monitoring technology is now so affordable that incorporating monitoring as part of a professional service business is an easy decision. Monitoring provides many benefits for the generator owner and even more for the service company. There are many significant advantages of implementing remote monitoring as an integral part of the new way service is done. Simply put, it is the best and most effective way for service companies to grow.

KEY BENEFITS

- Generator Owner Peace of Mind
- Fast, Proactive Service Response
- Improve Reliability
- Customer Loyalty & Satisfaction
- Service More Customers Per Technician
- Automated Communication to Your Customers
- Improve Efficiency & Productivity
- Reduce Unbillable Service Trips
- Increase Top Line Revenue
- Reduce Vehicle Expenses
- Increase Bottom Line Profit
- Differentiate from Your Competition

IMPROVING EQUIPMENT RELIABILITY

The definition of reliability in our business is simple… the power goes out and the generator works! Generator monitoring allows service companies to respond to issues before they become failures during an outage. Traditional, periodic maintenance schedules can leave room for unexpected problems between service visits. By using monitoring data, service companies can schedule proactive maintenance and repairs based on the actual condition of the generator rather than relying solely on calendar-based intervals. We know that inspecting a generator more often increases reliability and the likelihood of finding and resolving problems before the next power outage. Remote monitoring provides 31,536,000 inspections per year without deploying a technician.

ENHANCING CUSTOMER SATISFACTION AND RETENTION

Unexpected failures can damage a service company's reputation and weaken customer relationships. By offering monitoring, companies provide added value and peace of mind for their customers. When issues are caught early, it significantly reduces the risk of unexpected outages which leads to happier customers. This proactive approach helps improve retention and builds customer loyalty. Customers that stay with you through the life cycle of their equipment will allow you to capture those highly profitable quoted and scheduled recommended services. They will more often say yes to recommended services and will also be your advocate and provide referrals.

IMPROVED OPERATIONAL EFFICIENCY

With the shortage of technicians, the traditional practice of sending a technician out for multiple minor service inspections per year for each customer may be hindering you from servicing more customers and growing. Remote monitoring allows you to have supervisory visibility of all the generators you service to track their status, history, issues/faults, and outages. By receiving

real-time insights and data-driven diagnostics, generator monitoring enables service companies to operate more effectively, reduce costs, provide better utilization of technicians, and most importantly enhance customer satisfaction.

A major advantage of monitoring is optimizing technician schedules and resource allocation. With access to the condition data of every generator, you can better prioritize technician efforts by routing and scheduling them to priority jobs and ones that better fit their skill level. This leads to a more efficient workforce, with fewer visits and less time spent on generators that don't require immediate attention. By reducing unnecessary site visits, generator service companies can significantly improve operational profitability and serve more customers per technician. For added benefit, many monitoring software systems can feed the generator data via an API into your service software to create automated actionable recommendations and work orders.

TYPES OF MONITORING SYSTEMS AVAILABLE

When generator monitoring systems first became available, they were very expensive. Like most technology, prices and performance have improved dramatically over the years. Some manufacturers offer monitoring systems at a low cost, but they typically only work on their brand of generators. Independent monitoring companies provide a variety of monitoring solutions that are universal to all brands, models, ages and sizes. The costs of these systems are also very affordable with a wide variety of options to best suit the needs of the owner.

Most service companies and generator owners are looking for a simple and cost-effective solution that tracks the activity and status of the generator. This includes tracking the run cycles, exercise cycles, battery voltage, engine hours, and the generator status to know if the generator is ready for an outage or is in a fault. ***Confidence that the generator will work when needed*** is the primary concern for generator owners and they are looking to their service company to proactively address any issues. There are some applications where a generator owner and service company need more detailed data such all engine and electrical parameters and values. There are quite a few Modbus connected solutions on the market today that meet these needs. Overall, there are a wide variety of cost-effective generator monitoring solutions that make implementing this technology into your service business affordable and an easy decision

What is Your Vision?

What does your business look like in five years, or even ten years? How many service customers and technicians will you have? What does your revenue, gross profit, and net profit picture look like?

Picture that you are remotely connected to all generators you maintain. Every day, you know what generators need immediate attention, which ones are working properly, and which ones are due for maintenance and scheduled repairs. Every day you are routing technicians in the most efficient manner, maximizing your productivity and your profitability. Sounds like a dream, right? It is the future of field service!

How Do I Build a Technology Forward Company?

REVIEW HOW YOU ARE DOING THINGS TODAY

First, review the profitability of the different types of service you perform. Take a sampling of annual PM services, minor service inspections, scheduled repairs, and emergency repairs. Review the profit margin and profit dollars from these as well as the amount of labor hours consumed for each, including travel time. You will quickly see that the most profitable work orders are quoted repairs and emergency services. You will also likely find that the least profitable work orders are minor service inspections, aside from unbillable service calls.

MINIMIZE THE LOW PROFIT WORK

Reduce the amount of work that is the least profitable, typically minor service inspections. This consumes valuable technician labor hours, and you are better off redeploying your technician labor (hours bought) on higher profit jobs. This will have an immediate impact on your bottom line. If we are viewing the available technician hours as an "asset," the strategy should be to maximize the revenue and profit per technician already on staff.

A common statement from those following the traditional service model is "the minor service inspections are how we pick up our extra repair work" when a technician is on site. It is agreed that monitoring cannot take the place of a technician physically and visually inspecting and testing a generator set. However, experience shows that most minor service inspections do not result in "picking up extra repair work" and most often result in a low profit service visit. If you are properly tracking the "recommended ser-

vices" including changing batteries, belts, hoses, coolant, etc., the recommended services can be automatically quoted based on the recommended schedule vs. having the technician "do the selling" to pick up these recommended services.

Again, if we treat the available technician hours as an "valued asset," then the strategy should be to focus on minimizing the low profit work as much as possible.

HOW TO IMPLEMENT REMOTE MONITORING

Many service companies have already embraced monitoring and include a monitor with **EVERY** service agreement. They have all confirmed much higher customer satisfaction and retention as well as significantly improved profitability and technician efficiency. Also noteworthy, they all confirm that the number of generator failures during a storm situation has been dramatically reduced to a very small and manageable percentage.

For service companies that are new to monitoring, we suggest that for all new customer agreements and renewal agreements consider quoting one annual service and including remote monitoring. If the customer insists on a technician inspecting the generator more often, then add the additional service inspections as requested at a profitable margin. Typically, the selling price of the annual monitoring service to a customer is roughly the same price you would normally charge for single minor PM visit. Again, minor service inspections are typically not very profitable, and they consume valuable technician hours, so the goal is to reduce the number of these as much as possible and feasible. For existing customer agreements, you might consider offering to "trade out" a minor service inspection or two for monitoring. You can keep the annual service agreement around the same price, gain the profit margin from monitoring, and redeploy the technician labor on other work. This is a Win-Win for you and the customer!

If you are not comfortable with the above approaches, simply offer it to your customers as many will say yes. Remember the benefits to the generator and service company are significant!

Keep your focus on your long-term vision of what your service company looks like down the road. Technology solutions are fundamental to the growth and success of service organizations. Those who embrace this now and start to use technology to their advantage will be the most profitable market leaders of tomorrow.

About the Author

Andy Briggs has over three decades of professional experience in the power systems industry having held senior level positions with several leading generator distributorships, owned his own distributorship for over 10 years, and has provided consulting services for generator dealerships throughout the US. Andy also served on the Electrical Generating Systems Association Board of Directors and now serves as President of Power Telematics, Inc. For more information, visit www.powertelematics.com.

What Will The Mission For Critical Power Equipment Look Like In 2030, And Why?

By William Kaewert, CEO, Stored Energy Systems (SENS)

Abstract

By the end of this decade, the mission for critical power equipment will dramatically change. Why? Because growing electricity demand combined with insufficient generating capacity will cause frequent power interruptions—and skyrocketing costs for electricity. How will this impact requirements for stationary batteries? Likely developments include frequent—even daily—cycling, stacking of new applications, and bi-directional charging synchronized with grid operations. Many experts are skeptical that the mission for critical power equipment could shift so soon. Yet this paper makes the case that megatrends are already creating a "perfect storm" for the U.S. electric grid. A maelstrom of grid disruptions and rolling blackouts will become the new normal for facility operators. Suppliers who adapt quickly will prosper, but slow movers will be left sitting on the sidelines.

Introduction

The critical power industry is nearing the largest and most significant inflection point in its history. Megatrends of artificial intelligence (AI), hyperscale data centers, and electrification on a massive scale are coalescing to create a perfect storm for grid operators, electricity consumers, and equipment suppliers. Three factors drive this intensifying maelstrom:

1. **Huge increments of new electric load.** Added load will come from data centers, newly constructed factories, electric vehicle chargers, heat pumps, and other electrification.
2. **Mass retirement of dispatchable generation capacity.** Intermittent resources such as wind and solar will not reliably substitute for this lost capacity.
3. **Increased failures of aged grid equipment.** Running old assets in start-stop mode will dramatically accelerate failures. This is especially true for coal-fired plants which still provide 17% of America's electricity.

This perfect storm is one hundred percent certain because it is already forming. In just a few years, energy emergencies and rolling blackouts will become more frequent, longer, and in more locations, than at any time since the inception of America's interconnected grid. The cost of electricity will swing wildly—during periods of scarcity, prices will catapult to staggering heights; at other times, excess power from subsidized renewables will cause negative prices.

To preserve continuity of facility operations—and protect against volatile electricity prices— many organizations will add or repurpose stationary batteries. This mission change will cause batteries and their power electronics to look materially different from today's designs. For example, batteries that can reliably cycle most days could replace batteries that sit idle 99% of the time. Stacking of new applications will require enhanced battery capacity and capabilities. High capacity, bi-directional power electronics that fully synchronize with the grid could replace today's single-function battery chargers.

In this context, let's look at a future scenario for the critical power industry.

A peek into the future: August 2030

Rolling blackouts due to inadequate power generation and transmission capacity have become a regular occurrence. Regions most affected include Washington DC/Northern Virginia, New York/New Jersey, coastal California, and Texas.

Critical shortages of capacity, such as those seen in Texas during the 2021 Winter Storm Uri, are causing dangerous dips in grid frequency. Repeated experiences during under-frequency events have honed grid operators' skills at avoiding total system collapse. Catastrophic damage to core grid components has been largely avoided, but aging distribution transformers regularly explode and catch fire. The replacement lead time for these transformers is now two years. Leadtime for 400-ton generator step-up transformers is more than three years—these transformers

are necessary to connect new generating plants and build new high voltage transmission lines. Meanwhile factories making gas turbine generators are at maximum capacity. With an order backlog of five years.

Even in regions that have avoided blackouts so far, gensets and uninterruptible power system (UPS) equipment run dozens of times each year. Most utilities require hyperscale data centers to have interruptible power contracts—their load is the first to be shed when electricity supplies run short. After all, data centers don't vote, and their complaints have little weight with state Public Utility Commissions (PUCs).

Faced with a doubling of large loads from 2025 to 2030, grid operators regularly dispatch on-site power generated at data centers. Asset owners initially protested but ultimately complied with state legislation requiring dispatch in exchange for grid interconnection. In late 2025, Texas became the first state to require large loads (data centers and industrial sites) to make their backup generators available to grid operators for dispatch during energy emergencies. A majority of states have followed the lead of Texas. ERCOT, the grid operator for Texas, "wrote the book" on how to dispatch data center power. Its operational procedures served as the model for a mandatory reliability standard set by the North American Electric Reliability Corporation (NERC).

Electricity markets serve two-thirds of the U.S. population: California, Texas, New York, New England, the mid-Atlantic region, and most of the Midwest. For consumers in these regions, a shortage of dispatchable capacity has caused massive inflation in wholesale electricity prices. While regulator-mandated price caps aren't much higher than those in 2025 (then $5,000 per megawatt hour in ERCOT, or 111 times the average 2021 price), wholesale prices approach caps regularly. Frequent operation at price caps has caused average rates for commercial and industrial (C&I) customers to escalate nearly fourfold. Even outside electricity markets, in so-called "cost-of-service" regions, state PUCs are imposing double-digit rate increases.

Across the U.S., major utilities face bankruptcy and are forced to rely on federal loan guarantees. The state PUCs tried to protect ratepayers but have now relented, allowing utilities to pass on losses incurred during massive price spikes. Time-of-use pricing for C&I customers is now extreme, swinging wildly between negative—when customers are paid to consume excess renewable generation—and astronomical peaks.

In response to billions of dollars in inflated electricity bills,[1] companies across the country have been forced to reexamine how they operate mission-critical systems. The prospect of cost savings from discharging normally idle standby batteries during high tariff hours and recharging them during periods of negative pricing has caught the attention of even non-technical chief financial officers (CFOs). Every battery, from purpose-built battery energy storage systems (BESS) to standby batteries, has been drafted into service. Standby batteries now are expected to be discharged dozens—or even hundreds—of times each winter and summer. Savvy asset owners now get positive cash flows from selling energy stored in batteries back to their utilities during high time-of-use periods.[2]

When the finance people wanted to stack this profit mission for stationary batteries atop the standby power mission, reaction was predictable. Power professionals at data centers and telecom facilities raged, practically in unison, "are you NUTS?! You'll have to pry standby battery capacity out of my cold, dead hands!" Ultimately, the finance people prevailed.

Traditional battery systems, unidirectional UPS, and unidirectional chargers have proven unsuited for this new environment. Most standby batteries were designed for long-term float use, not daily cycling. Many of these older-style batteries have since been replaced.

Disruption of the power electronics industry was more significant. Large numbers of UPS and critical power battery chargers needed replacement, as few were capable of operating bidirectionally to export battery energy to the grid.

Battery capacity has expanded significantly to enable the safe stacking of the time-shifting application atop the fundamental standby power mission. The demand for power conversion capacity has been even more extreme. In addition to needing to charge bigger batteries, customers now need to recharge batteries quickly. Periods of negative electricity prices are often unpredictable. Accepted battery charging practice is to charge as hard and fast as the battery allows to take maximum advantage of being paid to consume electric power.

Although significant, the capital cost of bigger batteries and higher capacity power electronics are trivial compared to potential cost savings. Avoiding high time-of-use charges drives cost savings. Leveraging periods of negative pricing is another opportunity for these, as well.

The bulk of these changes for the mission-critical power industry began in 2026 and are still being implemented in 2030. The past four years have manifested the most significant disruption in the history of this typically slow-moving industry.

While this hypothetical 2030 scenario may seem extreme, it is by no means improbable. Although extreme scenarios for human-built systems are rare, they do occur, much like hurricanes, earthquakes, and tsunamis occur in nature. The value in considering extreme scenarios is that they open eyes to possibilities that the daily grind obscures. The facts underpinning this 2030 scenario are megatrends and electric grid circumstances that are real, ongoing, and increasingly not in dispute.

New requirements for critical power equipment

Stepping again into 2030, let's survey the landscape of facilities and equipment, to see what is selling. While it's too risky to predict specific technologies or suppliers, it seems reasonable to predict general requirements:

Energy storage requirements

- Minimum life of 5,000 cycles, 20-year calendar life to support expected 200 days/year full discharge/recharge cycle.
- "Materially larger" batteries (five to ten times or more the capacity of today's standby batteries) to support stacking the time-shifting mission atop the existing critical mission application.
- Full compliance with relevant domestic and global safety standards. This will be table stakes.
- Exceedingly low risk of fire, approaching that of legacy lead-acid and NiCd technology. This need will be driven by customers wanting to install storage inside their facilities, rather than in outdoor containers.

Power conversion requirements

- Full bi-directional capability, UL listed to 1741 and similar standards for grid-interactive operation and ability to quickly reverse direction.
- Capability for centralized control, e.g., from either an on-site source or on-command from a virtual power plant (VPP) operator or other grid source.
- Much higher power than today's power electronics. Example: Assume that a battery charger rated at 10 kW is used for a given standby battery today. Now assume that the future battery is five times this capacity, and that the user wishes to charge that higher capacity battery in just four hours instead of 24. Assume charging efficiency similar to today's batteries, charging a battery five times bigger in one-sixth the time requires 30 times the power. The former 10 kW charger is replaced by a 300 kW unit.
- DC voltage higher than 125 or 250 volts is necessary to minimize the cost of conductors, circuit protectors, and other current-limited components. Eight hundred volts nominal could become typical for many mid-size battery banks.

Other requirements

- Higher power AC feeders to the site will be needed to move more power into and out of the new larger power electronics.
- DC-DC conversion will be needed to convert high DC bus voltages down to legacy voltages of 250, 125, 48 volts, etc.
- Updates to training and personal protective equipment to work around the more hazardous, higher DC voltages and higher energies.

Facts about the "perfect storm" facing the electric grid

For decades, electricity service in the U.S. has been generally reliable. But in the near future, rapid load growth, retirement of dispatchable generation, and increased failures of aged grid equipment will cause frequent capacity shortages. When operating reserves run low, grid operators will impose rolling blackouts.

Rolling blackouts will be concentrated in areas with high load growth, large losses of dispatchable generation, and unwillingness to invest in energy infrastructure. For example, New York State has declined the option to build gas pipelines from the Marcellus shale formation to generating plants. New York has also mandated the electrification of cooking equipment and vehicle fleets. These environ-

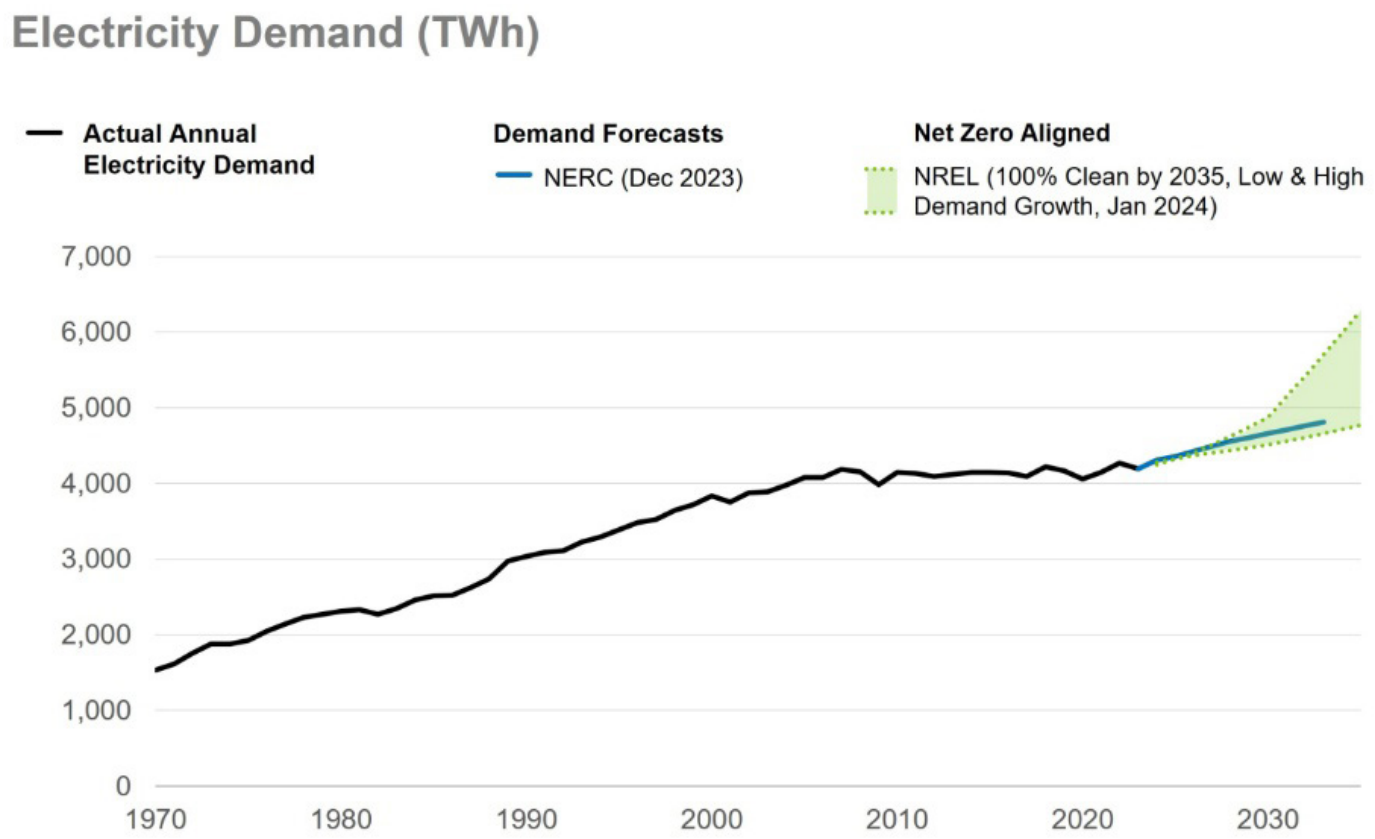


Figure 1. U.S. Actual and Forecasted Electricity Demand – 1970-2023

mental initiatives will increase electricity demand.

California and Texas are wild cards for different reasons. Texas' rapid population and economic growth will continue to strain all its resources, including electric power. Although California's population is shrinking, the state's sizeable economy depends heavily on electric power imported from other areas. Should this power become unavailable, California's situation will be more dire than other states.

Rapid load growth

The first driver of the grid's perfect storm will be significant growth in electrical loads caused by AI data centers, population increase, return of domestic manufacturing, electric vehicle chargers, heat pumps, and other electrification. Average load growth in the United States has been nearly flat for 10 years, growing just 0.3% annually from 2013 to 2023. It is now expanding rapidly. In 2024, NERC estimated load growth surged to nearly 2%. The National Electrical Manufacturers Association (NEMA) estimates that U.S. power demand will increase more than 50% over the next 25 years.[3]

Peak demand—a weather-driven phenomenon—is also increasing. Heat waves and cold snaps cause peak demand, but only for a small proportion of the hours in each year. According to Grid Strategies, the projection for peak demand growth in early 2024 was 67 GW. Later in the same year, however, their estimate nearly doubled to 128 GW—5% annually.[4] By any measure, these load growth estimates are massive.

Retirement of dispatchable generation

In 2015, the U.S. electric grid had 1,080 gigawatts of dispatchable generation capacity. Five years later, 8% had been lost, reducing capacity to 1,000 gigawatts. Approximately 177 gigawatts were retired, including 109 gigawatts of coal-fired capacity, 51 gigawatts of gas-fired, 10 gigawatts of oil-fired plants, and 7 gigawatts of nuclear. New construction of 97 gigawatts could not fill the gap—in the past ten years, the US retired twice as much dispatchable capacity as was commissioned.[5]

More dispatchable generation is the answer—but it will not arrive soon enough. Only four gigawatts of dispatchable generation were commissioned in 2024. One of those gigawatts came from Vogtle Unit 4, a reactor at the only nuclear plant constructed in decades. On a sustainable basis, the U.S. really added about three gigawatts in 2024.[6]

Renewables won't help much

Solar and wind power cannot substitute for dispatchable generation. Although the U.S. added 200 gigawatts "nameplate capacity"[7] of solar and wind from 2015 to 2025, the average output of these resources is only 21% and 33% of nameplate, respectively. When this nameplate capacity is adjusted for actual output, only 55 gigawatts remain.[8] Moreover, solar and wind are intermittent resources. Snow cover is a surprisingly effective barrier to photovoltaic (PV) operation. The Germans refer to unfavorable renewable conditions as "Dunkelflaute," meaning "dark doldrums." During such conditions, the amount of installed renewable capacity is meaningless; there's no electrical output at all. Proponents say offshore wind is more reliable, but its construction is expensive and slow. Moreover, the Trump Administration began revoking offshore wind permits in April 2025.

What about new transmission capacity?

Most electricity in the U.S. is consumed in metro areas on the East and West Coasts, but wind turbines work best in the middle of the continent, where the wind is strongest. Plenty of people are in favor of massive, high-voltage transmission lines to transport wind power from flyover country to power-hungry, coastal consumers.

However, three significant impediments exist to this solution: 1) legal challenges, 2) NIMBY opponents, which together have nearly halted construction of new interstate transmission lines, and 3) extremely long lead times to acquire their key components. The third is most significant, because it cannot be resolved by court orders or legislation. Large power transformers at transmission substations are 400-ton behemoths that are not built in the United States and have lead times of three years or more. Additionally, during the past five years, the price of such transformers has increased by 40%; tariffs will only exacerbate inflating prices.

What about batteries?

The viability of high-capacity batteries, such as those in BESS, depends on the application. When BESS are installed on customer premises, they can have significant reserve capacity compared to facility load. Accordingly, BESS can materially improve the economics of facility power in areas with high time-of-use tariffs or high demand charges. However, in utility-scale configurations with solar and wind generation ("hybrid systems"), BESS capacity is typically limited to four hours or less of discharge; therefore, renewables plus batteries cannot substitute for dispatchable generation. So, while BESS can alleviate electricity shortages at peak hours, these batteries are too costly to solve the more general problem of providing backup power during days-long wind and solar droughts over wide areas.

Consider Minnesota as an example. According to 2024 EIA data, Minnesota's average daily electrical consumption is 179 gigawatt-hours (GWh). Let's assume in a hypothetical future that 50% of Minnesota's electric power is generated by either wind or solar. Let's also assume a three-day wind drought, heavy cloud cover, and prior snowfall on solar farms —output from these renewables would be zero. The battery capacity needed to supply Minnesota's needs for three days would thus be 179 GWh/day *50% renewable share *3 days, or 269 GWh. This energy of 269 GWh is three times the entire installed BESS capacity of 88 GWh[9] in the entire United States at the end of 2024.

According to 2024 EIA data, Minnesota consumes approximately 1.65% of total United States electricity generation. Although this is an oversimplification, extrapolating Minnesota's three-day need for backup to the entire United States results in required battery capacity of 16,000 GWh. This number far exceeds available financing and manufacturing capacity. It means that the role of BESS will remain limited—much like the role of batteries in a hybrid vehicle on a cross-continental trip.

What about nuclear power?

Nuclear power looks like a solution, and should be a solution, but won't be a solution in the short term. The U.S. has 94 operating nuclear reactors generating about 20% of total demand. Twenty-one commercial power reactors are undergoing decommissioning but only three of these are candidates for restart: Palisades Nuclear Plant, Three Mile Island Unit 1, and Duane Arnold Energy Center.

Large nuclear plants of conventional design require more than a decade to build. In fact, it took 15 years to permit and build Vogtle Units 3 and 4, the last United States nuclear reactors commissioned. These units cost twice as much to build as originally budgeted.

While new nuclear technologies such as small modular reactors (SMR) are being developed, their timeline is also long. The only U.S. Nuclear Regulatory Commission (NRC)-approved design for SMR, NuScale's VOYGR, started its formal design process in 2007.

Other SMR companies are entering the race. Most of them are betting on a new type of nuclear fuel called high assay, low-enriched uranium (HALEU), versus the low-enriched uranium used by all current U.S. nuclear plants and NuScale. The combination of new reactor designs and new fuel type makes it possible that their NRC certifications will take even longer and cost much more than NuScale endured. Thus, the prospect of widespread SMR adoption in the next 5 or even 10 years is remote.

Are gas turbines the answer to lost dispatchable generation?

Of the dispatchable generating plants currently in interconnection queues, nearly all are gas-fired. However, this new capacity also faces impediments: limits on opposition from environmental groups, slow permitting, and long lead times for construction —natural gas power plants typically take four years for permitting and another four years to build. New gas-fired plants cannot be built without sufficient pipeline capacity. Unfortunately, the interstate gas transmission system has little slack capacity. Court challenges by environmental groups and NIMBYs have halted construction of new pipelines. The U.S. Congress had to pass special legislation to overcome court challenges impeding completion of the last major pipeline, the Mountain Valley Pipeline.

According to the industry newsletter CTVC, manufacturing constraints will also hamper new plant construction:

> *Gas turbine manufacturers are swamped with orders, with delivery backlogs that stretch past 2029 already leading to project cancellations, like Engie pulling out of two gas plant projects in Texas late last month. As these delays pile up, the risk of gridlock grows — threatening to short-circuit load growth and power down grid reliability.*

Another source, Heatmap, says rather than pushing for massive expansion, manufacturers have begun to limit investments to protect high equipment margins. They fear overexposure if the expected growth of data center demand fails to come to fruition.[11]

Increased failures of aged grid equipment

Will delaying retirement of dispatchable generating plants, especially coal-fired plants, save the day? Not so fast. Plant owners are increasingly declaring forced outages during energy emergencies. Steam turbine generators in these facilities were designed for constant base-load operation. The grid in 2025, however, includes enough renewable generation to force large thermal plants to run intermittently.

For decades, coal plants delivered highly dependable, low-cost power. In April 2025, the Trump administration signed an Executive Order to keep coal plants open, but this lifeline fails to address two fundamental problems. First, deferred maintenance costs to refurbish coal-fired plants would be monumental. Why do more than minimal maintenance on an asset that has effectively been banned? Second, start-stop operation causes thermal cycling for which plant boilers were not designed. Twenty years' worth of stress can be accumulated in a fraction of that time.

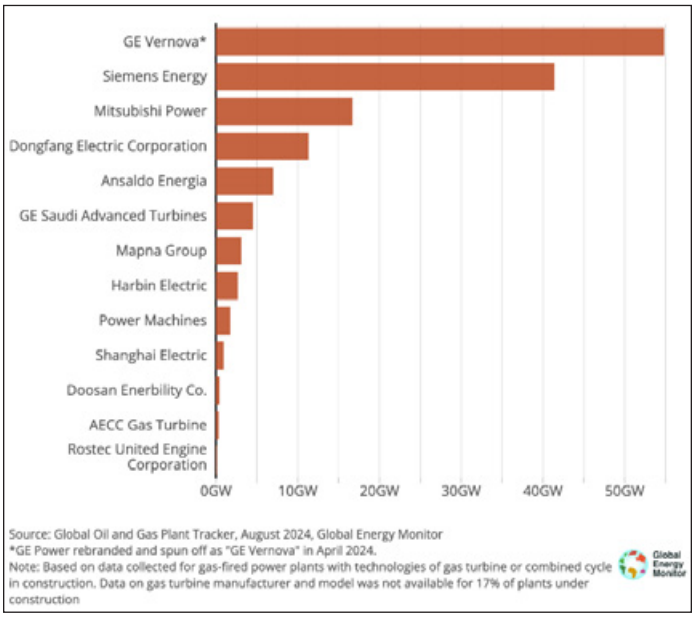


Figure 2. Gas turbine capacity in construction by manufacturing company, in gigawatts (GW)

Thermal stress amplifies the risk of boiler explosions, like the one that killed three workers at the Salem Harbor Power Station in 2007, although the Salem Harbor boiler was inspected annually. This boiler was 50 years old, which also approximates the average age of grid assets in 2025.

Most coal plant operators have reacted to two decades of societal antagonism quite logically—they have chosen to run these assets into the ground. As a result, a growing number of experts estimate that most U.S. coal-fired generation (today 17% of supply) will be retired by 2030.

Are there grounds for optimism?

Absolutely …there are grounds for optimism! A potential source of dispatchable generation sits fully fueled and mostly idle. It is standby power at C&I enterprises. The combined capacity of C&I standby generators installed in the United States is between 130 and 200 gigawatts,[12] with about 45 gigawatts of that capacity located at hyperscale data centers.

This installed base of standby generators could replace retiring dispatchable generation much faster than building new generating plants and transmission lines for their interconnection. If generator installations and data centers continue to expand, which they will, this capacity could provide reserve power during peak usage periods, negating much of the need for new plants. Minimal upgrades to distribution systems would be required. One hundred gigawatts of standby generators would add about 10% dispatchable capacity to the U.S. electric grid—enough for 3-5 years of load growth. Unfortunately, this proposal faces three obstacles:

First—U.S. Environmental Protection Agency (EPA) regulations for standby generators. Most standby generators are reciprocating internal combustion engines (RICE), either diesel or gas powered. The EPA has imposed successive rounds of emission regulations, the most recent requiring so-called Tier 4 controls. Nearly all standby generators have Tier 2 or lower controls, therefore, limiting their operation to "emergencies"—i.e., when rolling blackouts are imposed. A modification to the EPA regulation would be necessary for standby generators to provide grid power.[13]

Second—generator transfer switches and controls. Few generators today include equipment to enable seamless operation in parallel with the grid. These would need to be retrofitted at considerable cost and effort. This, however, is a small fraction of the required permitting time required for new natural gas or nuclear power plants, or gas pipelines to be built.

Third—resistance of power utilities to enable and facilitate on-site power operating in concert with the grid. This obstacle is arguably the most difficult to solve.

Despite these impediments, leveraging standby generators could be the quickest way to bolster grid stability—and it could be financially beneficial for C&I enterprises. This would avoid many of the problems with building large, centralized generating plants: long waits for grid interconnection, supply chain issues for gas turbines and power transformers, and legal challenges before Public Utility Commissions and the Federal Energy Regulatory Commission. And importantly, using these existing resources could be the cheapest solution for electricity ratepayers of all categories, including residential consumers.

Are there examples of data centers helping the grid?

Data centers commonly reserve critical power equipment exclusively for their own use. However, in the future regulators are likely to require data centers to generate power as a precondition for obtaining electricity service. In Texas, Senate Bill 6 would require data center owners to provide their own day-to-day electricity and also make it available for emergency dispatch. In New Hampshire, data centers not connected to the local electric grid—and having their own generation—would avoid burdensome permitting.

The Institute of Electronical and Electronic Engineers (IEEE) provides ongoing coverage of distributed power generation concepts. This quote from a 2023 issue of their Electrification Magazine article describes evolving practice in northern Virginia, location of the world's largest concentration of data centers:

With growing frequency, utilities and grid operators are calling on data centers to run their generators preemptively to balance loads and prevent grid outages. These requests can add days or weeks to the annual runtime of the generators, significantly increasing both their emissions and cost to operate. In Virginia, USA, the state Department of Environmental Quality (DEQ) has proposed suspending certain requirements to allow data center operators in the state to run their generators for extended periods of time and avert disruptions from overtaxed transmission infrastructure. In a public notice soliciting comment on the plan, the agency wrote, 'data center operation relies on the use of large amounts of electricity from the grid. DEQ is concerned that the counties of Fairfax, Loudoun and Prince William is an area in which there may not be sufficient amount of electricity for data centers due to severe, localized constraints in electricity transmission.[14]

Conclusion

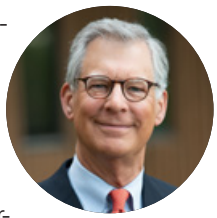
By the end of this decade, electricity shortages and blackouts will become more frequent, longer, and more widespread than at any time since the inception of the U.S. electric grid. During scarcity, the price of electricity will reach staggering heights. At other times, businesses will be paid to consume. As grid disruptions and volatile prices affect bottom lines, many C&I enterprises will add or repurpose stationary batteries.

For users and manufacturers of critical power equipment—especially batteries and their power electronics—operational practices and designs will need to change. Batteries that can reliably and frequently cycle will replace batteries that sit idle 99% of the time. High power, bi-directional power electronics that fully synchronize with the grid will replace today's single-function chargers and UPS. And there will be other developments that we may not anticipate now but that will be essential, nonetheless.

While this will be a challenging time for America, suppliers of critical power equipment will see increased opportunities. Conventional designs will be replaced by more capable products. New suppliers will arise from within and from outside the industry. Legacy suppliers will need to adapt if they don't want to be left sitting on the sidelines.

For us, the old ways of thinking are facing unprecedented challenges. As an industry, we will need to adapt or make way for those who do.

About the Author



William Kaewert is CEO of Colorado-based Stored Energy Systems LLC (SENS), an industry leading supplier of non-stop DC power systems that are an essential part of the nation's critical infrastructure. SENS products provide non-stop power that enable 24/7 operation of the power grid, energy production, data centers, health care facilities, the financial system and other services that sustain modern life. Mr. Kaewert received his AB in history from Dartmouth College and MBA from Boston University.

He has served on the board of directors of several economic development organizations and the Electrical Generation Systems Association (EGSA). He is an active member of InfraGard, a public/private partnership of private industry and the FBI to protect United States critical infrastructures from deliberate attack.

Bill co-founded Resilient Utilities Now, a non-profit working to improve US resilience against long-duration electric system failures. Bill has in the past served in other roles related to power system resilience, including director and Chairman of the Board for the Foundation for Resilient Societies a NH-based non-profit.

End Notes

[1] The EIA estimated total spend in 2024 by United States C&I customers for electric power at $268 billion. Quadrupling the cost of electric power thus represents a deadweight loss of $804 billion to the U.S. C&I economy. Paying four times as much for the same amount of electric power is a textbook example of "stagflation."

[2] "Industry analysts" estimate the total installed capacity for on-premises batteries in the U.S. (excluding utility-scale BESS), is in the range of several gigawatt hours, with some estimates suggesting 10 GWh in 2024. The 2030 estimate is nearly three times this size, or 30 GWh. The potential value of this stored energy is considerable: We assume that the average price in 2030 that utilities pay during peak time of use (TOU) periods will be $10/kWh. We will assume that one-third of this capacity, or 10 GWh, is discharged 200 days/year and recharged at an average of zero dollars (because of negative pricing). The result is $20 billion/year in positive cash flow from standby batteries that are used to shift the time of electric power consumption. This analysis ignores revenue from consuming power during negative price periods because the duration and timing of these periods is so variable. The safe assumption now is to assume zero cost of electric power to recharge.

[3] A Reliable Grid for an Electric Future: NEMA's Grid Reliability Study, NEMA, April 2025

[4] John D. Wilson, Zach Zimmerman, and Rob Gramlich. "Strategic Industries Surging: Driving US Power Demand." GridStrategies. December 2024. Available online at: https://gridstrategiesllc.com/wp-content/uploads/National-Load-Growth-Report-2024.pdf

[5] Source: Mini-keynote address of Thomas Popik to Electric Generating Systems Association conference. April 8, 2025. Charlotte, North Carolina.

[6] Ibid.

[7] "Nameplate capacity" is the maximum design capacity of electrical equipment, which may be less than the capacity in actual operation.

[8] Ibid.

[9] Estimate of 88 GWh is based on 76,103 MWh of large-scale BESS and 11,492 MWh of small-scale BESS capacity at the end of 2024. Estimates for 2024 use reported EIA data for 2023 and assume a 66% annual growth rate for 2024 installations, in line with the prior year growth. Three hours duration for small-scale BESS is assumed. U.S. EIA. "Battery Storage in the United States: An Update on Market Trends." April 25, 2025.

[10] Gas Turbine Gridlock #236, CTVC, March 10, 2025

[11] The Natural Gas Turbine Crisis, Heatmap, February 26, 2025

[12] Source: Foundation for Resilient Societies presentation to EGSA conference, April 2025

[13] Foundation for Resilient Societies has filed a Petition for Rulemaking to the EPA to allow 500 hours of annual operation for emergency generators. The petition is available online at the foundation's website, www.resilientsocieties.org

[14] Evolving a Data Center into a Microgrid: Industry Perspectives and Lessons Learned, IEEE Electrification Magazine, September 2023

EGSA Membership Classification and Dues

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 Onsite Power consumers.

MANUFACTURER MEMBERSHIP

This membership is for companies and the membership covers all employees of the company.

MEMBERSHIP CATEGORY		CATEGORY DESCRIPTION	ANNUAL DUES	INITIATION FEE	TOTAL DUE
MF	**Manufacturer Membership**	Any 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.	**$1354**	$257	**$1611**

ORGANIZATIONAL MEMBERSHIP

The Membership categories are for organizations their memberships cover all employees of the organization.

DD	**Distributor/Dealer Membership**	Any corporation actively engaged as a distributor or dealer for products listed under manufacturers, Section 1, Paragraph a., may apply for full membership as a Distributor/Dealer. If an organization qualifies as a manufacturer under Section 1, Paragraph a., it is not qualified under this section.	**$508**	$128	**$636**
CI	**Contractor/Integrator Membership**	Any corporation actively engaged as a Contractor or Equipment Integrator of products listed under manufacturers, Section 1, Paragraph a., not brand by brand, geographic territory or contractually obligated as a Distributor/Dealer of a specific product, may apply for full membership. If an organization qualifies under Section 1, Paragraph a, or b, it is not qualified under this section.	**$508**	$128	**$636**
MR	**Manufacturer's Representative Membership**	Any corporation actively engaged in the representation of products listed under manufacturers, Section 1, Paragraph a., may apply for full membership as a Manufacturer's Representative. If an organization qualifies under Section 1, Paragraph a, or b, it is not qualified under this section.	**$508**	$128	**$636**
SMTR	**Service, Maintenance, Monitoring, Testing, and Repair Companies Membership**	Any corporation engaged in the service and maintenance, or monitoring, testing, or repair of products listed under Section 1, Paragraph a., may apply for full membership. If an organization qualifies under Section 1, Paragraph a, or b, it is not qualified under this section.	**$508**	$128	**$636**
RC	**Rental Companies Membership**	Any corporation actively engaged in the rent or lease of products listed under manufacturers, Section 1, Paragraph a., may apply for full membership as a Manufacturer's Representative. If an organization qualifies under Section 1, Paragraph a, or b, it is not qualified under this section.	**$508**	$128	**$636**
UIE	**Utilities, IPPs, and Energy Services Companies Membership**	Any public or private corporation engaged in energy generation and/or management, including public and private utilities, Energy Service Companies (ESCOs), Independent Power Producers (IPPs), Integrators, Aggregators, and other similar enterprises may apply for full membership. If an organization qualifies under Section 1, Paragraph a, or b, it is not qualified under this section.	**$508**	$128	**$636**
EU	**End-User Membership**	Any corporate or other public or private organization that purchases, owns, or operates, electrical generating equipment and/or related switchgear or components may apply for associate membership. If an organization qualifies under Section 1, Paragraph a, or b, it is not qualified under this section.	**$347**	$128	**$475**
EI	**Educational Institution**	Any school, university, postsecondary vocational-technical school or college may apply for organizational membership.	**$347**	$128	**$475**
GM	**Government**	Any federal, state, or local governmentmay apply for organizational membership.	**$347**	$128	**$475**
NP	**Nonprofit Membership**	Any nonprofit organization may apply for organizational membership.	**$347**	$128	**$475**
PS	**Professional Services Firm**	Any professional services firm or other service-related organizations that do not exlusively service the electrical generating industry such as accounting, legal, financial services, communications, etc. may apply for associate membership.	**$347**	$128	**$475**
CSE	**Consulting Specifying Engineer Membership**	Any consulting specifying engineering firm may apply for full membership. If an organization qualifies under Section 1, Paragraph a, or b, it is not qualified under this section.	*FREE*	*FREE*	**$0**

INDIVIDUAL MEMBERSHIP

IND	**Individual Membership**	Any individual who was previously employed in the on-site power generation industry but is no longer actively employed in the industry.	**$142**	*FREE*	**$142**
MIL	**Military Membership**	Any individual who is currently enlisted may apply for membership within this category. Proof of military engagement is required by either current Military ID card.	**$84**	N/A	**$84**
RET	**Retiree Membership**	Any individual who retires from a member company may apply for Associate Membership. This classification does not apply to any individual who is employed more than 20 hours per week.	*FREE*	*FREE*	**$0**
STU	**Student Membership**	Any individual currently enrolled at an academic institution may apply for Associate Membership. This classification does not apply to any individual who is employed more than 20 hours per week	*FREE*	*FREE*	**$0**

Application via Website

Visit the EGSA Website: www.egsa.org.

Create an Account: On the EGSA website, locate the membership page and follow the guide to apply for membership. This process will involve creating an account on **MyEGSA**.

Set Up Your Organization's Profile: After creating your account, you will need to set up your organization's profile. Ensure all the necessary details are accurately filled in to avoid delays in your application process.

Review Process: Within two business days, the EGSA staff will verify the application details, conduct research on your organization, and assign the appropriate Membership Type based on your organization's qualifications and interests.

Congratulations on taking the first step towards becoming a member of the EGSA community! If you have any questions or need assistance during the application process, please do not hesitate to contact us at **info@egsa.org**.

Organization Information

Company _____

Address _____

City _____ State/Province _____ Zip/Postal Code _____ Country _____

Phone _____ FAX _____

Branches _____

Official Representative _____ Title _____

Representative's E-Mail _____ Company's Web Address _____

Organization's LinkedIn Page _____ Instagram Handle _____ Facebook Page _____

Organization Description _____

_____

Does the Organization employ EGSA technicians? ☐ Yes ☐ No

How did you hear about EGSA? ☐ Website ☐ *Powerline* magazine ☐ Colleague ☐ PowerGen ☐ Social Media ☐ Internet Search ☐ Other_____

Why are you joining EGSA? ☐ Certification Program ☐ CEU Program ☐ Power Schools ☐ Buying Guide Listing ☐ Networking ☐ Committees ☐ Other_____

Member Classification

Please use the worksheet on page one of this application to determine your membership type.

MANUFACTURER MEMBERSHIP

☐ **MF** Manufacturer Membership

ORGANIZATIONAL MEMBERSHIP

☐ **DD** Distributor/Dealer Membership
☐ **CI** Contractor/Integrator Membership
☐ **MR** Manufacturer's Representative Membership
☐ **SMTR** Service, Maintenance, Monitoring, Testing, and Repair Companies Membership
☐ **RC** Rental Companies Membership
☐ **UIE** Utilities, IPPs, and Energy Services Companies Membership
☐ **UIE** Consulting Specifying Engineer Membership
☐ **EU** End-User
☐ **EI** Educational Institution
☐ **GM** Government
☐ **NP** Nonprofit
☐ **PS** Professional Services Firm
☐ **CSE** Consulting Specifying Engineer

INDIVIDUAL MEMBERSHIP

☐ **MIL** Military Membership
☐ **STU** Student Membership
☐ **RET** Retiree Membership
☐ **IND** Individual Membership

Membership Dues

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

Membership Dues $ _____
Membership Plaque (optional)** $ 102.00

On-Site Power Generation: A Comprehensive Guide to On-Site Power (optional)** $ 275.00

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 $ _____

Organization Demographics

This information is for internal EGSA purposes only. It does not appear in the *EGSA Buying Guide* or the Member Directory.

Number of Employees: ☐ 1-20 ☐ 20-100 ☐ 100-500 ☐ 500+

Annual Revenue: ☐ $0-$500k ☐ $500k-1.5M ☐ $1.5M-$2.5M ☐ $2.5M-$5M ☐ $5M-$10M ☐ $10M-$20M ☐ $20M-$50M ☐ $50M-$100M ☐ $100M-$1B

Payment Method

Payment is prorated based on the membership start date, covering the remainder of the calendar year. Following acceptance of your application, EGSA Staff will reach out directly with detailed instructions for completing your payment. We appreciate your interest and look forward to your membership.

EGSA Buying Guide Listing Info

	Sells	Rents	Services
Batteries/Battery Chargers	☐	☐	☐
Control/Annunciator Systems	☐	☐	☐
Education	☐	☐	☐
Emission Control Equipment	☐	☐	☐
Enclosures, Generator Set	☐	☐	☐
Engines, Diesel or Gas	☐	☐	☐
Engines, Gas Turbine	☐	☐	☐
Engine Starters/Starting Aids	☐	☐	☐
Filters, Lube Oil, Fuel or Air	☐	☐	☐
Fuel Cells	☐	☐	☐
Fuel Tanks and Fuel Storage Systems	☐	☐	☐
Generator Laminations	☐	☐	☐
Generator Sets	☐	☐	☐
Generators/Alternators	☐	☐	☐
Governors	☐	☐	☐
Heat Recovery Systems	☐	☐	☐
Instruments and controls, including meters, gauges, relays, contactors, or switches	☐	☐	☐
Load Banks	☐	☐	☐
Motor Generator Sets	☐	☐	☐
Radiator/Heat Exchangers	☐	☐	☐
Relays, Protective or Synchronizing	☐	☐	☐
Silencers/Exhaust Systems/Noise Abatement	☐	☐	☐
Solenoids	☐	☐	☐
Switchgear and Transfer Switches (Automatic or Manual), Bypass Iso-lation Switches, and/or Switchgear Panels	☐	☐	☐
Trailers, Generator Set	☐	☐	☐
Transformers	☐	☐	☐
Uninterruptible Power Supplies	☐	☐	☐
Vibration Isolators	☐	☐	☐
Voltage Regulators	☐	☐	☐
Wiring Devices or Receptacles	☐	☐	☐

For Distributor/Dealers, Manufacturer's Representatives and Contractor/Intergrators Only—List the manufacturers that your organization represents, deals or integrates:

_____

For Manufacturers Only—List your organization's Representatives, Distributors and Contractor/Integrators:

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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 _____

Official Representative's Authorization

Signature _____ Date _____

For any EGSA Membership questions, please contact us at **info@egsa.org.**

EGSA
Electrical Generating Systems Association

Keep Your EGSA Profile Up to Date!

Your **MyEGSA profile** is more than just contact information—it's your professional presence within the EGSA community. An updated profile helps you:

- Connect with peers in your area of expertise
- Stay informed with relevant communications
- Ensure your company and personal details are current
- Maximize the value of your EGSA membership

How to Update Your Profile

1. **Log in to MyEGSA** at **www.my.egsa.org**. (you may need to reset your password)
2. Go to the **Account Tab**.
3. Select **Contact Info** on the left side.
4. Update your **contact information** and confirm that you are **showing in the Member Directory**.
5. Be sure to **save your changes**.
6.

Pro Tips

- Add a profile photo to make it easier for other members to connect with you.
- Review your company listing to ensure accuracy in the **Member Directory**.

Organization Information & Primary Contact

In addition to your personal profile, check that your **organization's information** is correct.

- Confirm your **company name, address, and main contact details** are accurate.
- If you are listed as the **Primary Contact**, be sure to keep this information up to date—this role ensures your company receives all official EGSA communications.

Why It Matters

Your EGSA profile is how colleagues, potential collaborators, and association leadership find and connect with you. Keeping your profile current ensures you get the **most out of your membership**.

Take 2 minutes today to update your profile!

Need help? Contact the EGSA office at **info@egsa.org** or call us at **(561) 750-5575**.

EGSA Enriches & Unites the On-Site Power Generation Industry with *POWERLINE Magazine!*

Tap Into the Captive Audience Your Organization Needs to Reach!

POWERLINE Magazine is one of the best ways to stay on top of the rapidly changing landscape of On-Site Power. From codes and standards, emerging technologies, best practices and education to industry trends, *POWERLINE* Magazine is the BEST vehicle to reach thousands in the Industry, with a targeted approach and vehicle.

Published quarterly, *POWERLINE* is the only magazine that thoroughly and exclusively covers On-Site Power, electrical generation or any method of producing power at the site in which it is generated. No other publication can match *POWERLINE* for its focus on On-Site Power.

If you sell products or services in this constantly expanding Industry, *POWERLINE* will deliver your advertising message to the key decision-makers you want to reach!

Our readership includes Manufacturers, Distributor/Dealers, Manufacturer's Representatives, Consulting and Specifying Engineers, Facility Managers, Service Firms, and end-users around the world who make, sell, distribute, and use generators, engines, switchgear, controls, voltage regulators, governors, and related products and services!

Every issue of *POWERLINE* includes important articles covering diverse industry issues, such as international markets, contracts, financing, trade agreements and more. Technical and "case studies educate readers about emerging technologies and commonly misunderstood applications. In addition, regular columns on industry codes and standards, news from Europe, manufacturer's representative issues, industry events and other compelling news keeps our readers engaged and informed year after year.

The EGSA member Job Bank is also a great industry resource for members and job applicants alike!

Harness the energy by advertising in POWERLINE *today!*

Advertising with *POWERLINE* is really a "no brainer." Our advertising rates are competitive and provide superior industry reach into this multi-faceted market.

For more information on building a customized advertising plan please contact
Katherine Sims
info@egsa.org | 202.997.4666

	Dimensions in inches	Member	Member	Non-Member	Non-Member
Ad Size	**Width x Height**	**1-time (per edition)**	**4-times (per edition)**	**1-time (per edition)**	**4-times (per edition)**
Full Page *Bleed Size* *Trim Size*	 8.625" x 11.125" 8.375" x 10.875"	 $1,315 *B&W* $2,330 *4-Color*	 $1,155 *B&W* $2,100 *4-Color*	 $1,420 *B&W* $2,545 *4-Color*	 $1,315 *B&W* $2,330 *4-Color*
1/2 Page *Horizontal* *Vertical*	 7.375" x 5" 3.687" x 10"	 $840 *B&W* $1,860 *4-Color*	 $735 *B&W* $1,680 *4-Color*	 $945 *B&W* $2,075 *4-Color*	 $840 *B&W* $1,860 *4-Color*
1/4 Page	3.687" x 5"	$500 *B&W* $1,520 *4-Color*	$430 *B&W* $1,375 *4-Color*	$550 *B&W* $1,680 *4-Color*	$500 *B&W* $1,520 *4-Color*

**We will do our best to honor placement requests, but reserve the right to decide placement.*

Submit Your On-Site Power Article!

POWERLINE Magazine is continually seeking feature articles (1,500 - 2,500 words) addressing any one of the many issues pertinent to On-Site electrical generating systems and equipment. To be considered, please e-mail a title, brief summary and highlights of your article to **info@EGSA.org**.

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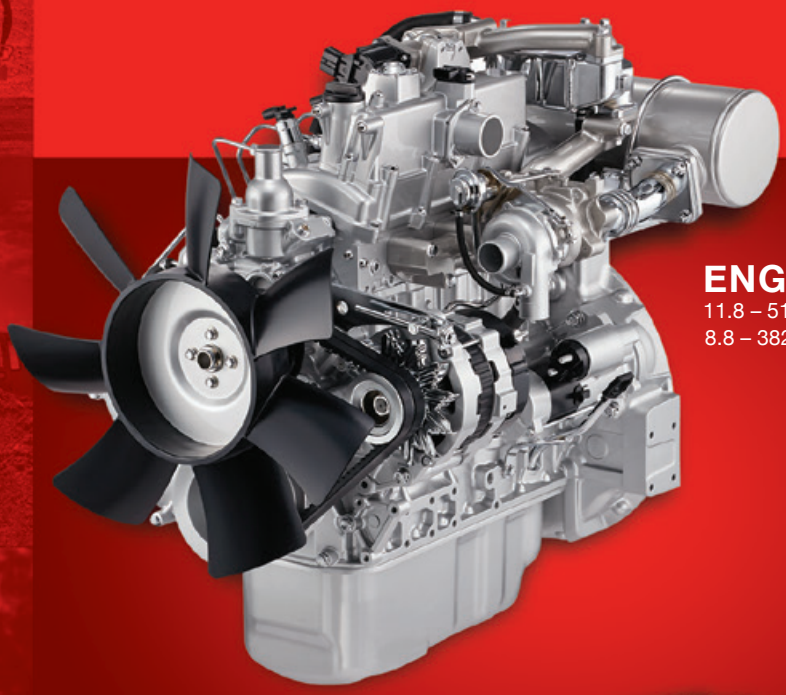

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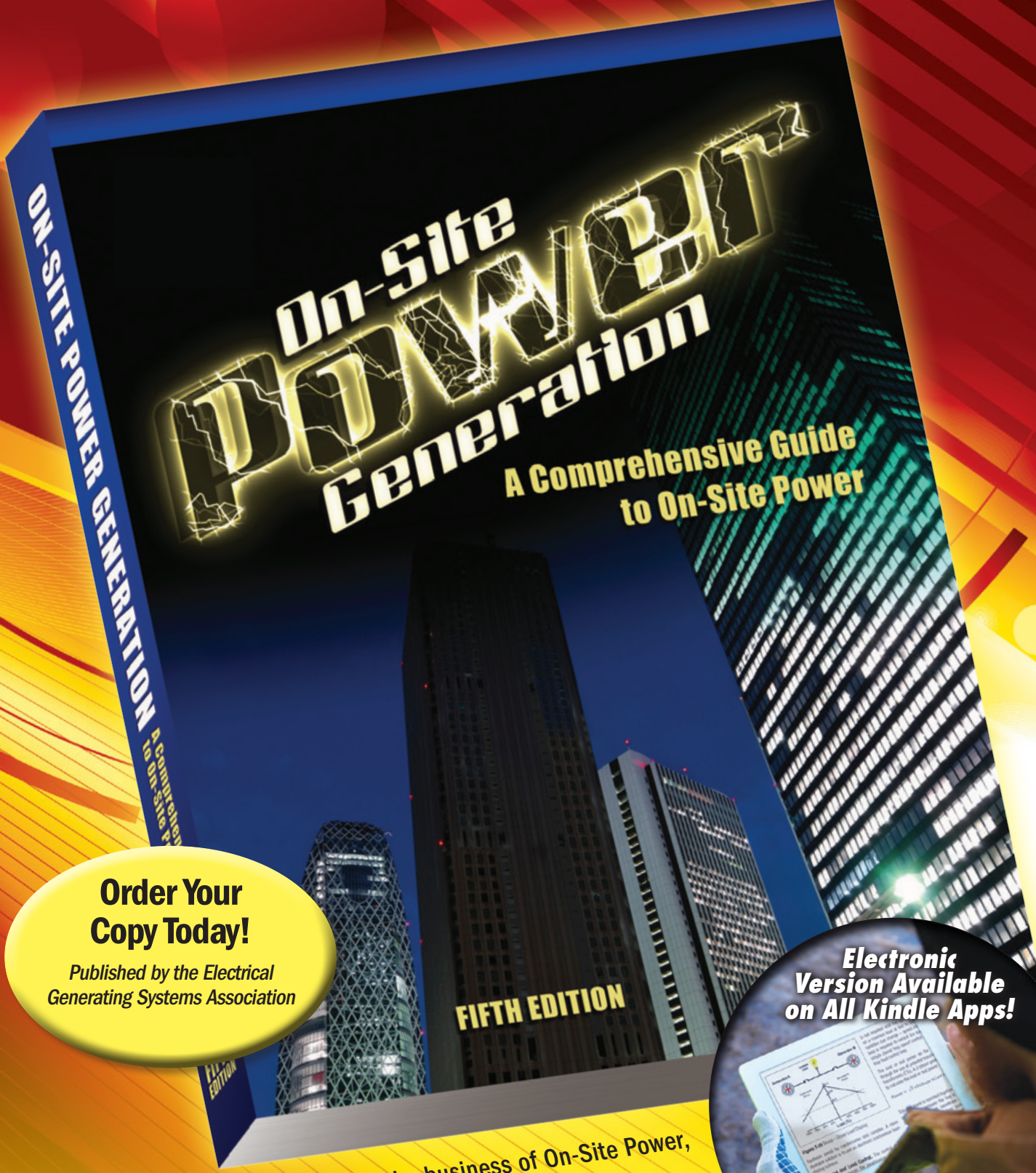

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If you are in the business of On-Site Power, you should own a copy!
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