# ENERGY MANAGEMENT **GENERAC GOES BEYOND STANDBY**

# GENERAC<sup>®</sup> INDUSTRIAL POWER



# **WHY GENERAC?**

Generac did not become one of the largest generator manufacturers and suppliers by accident. For more than six decades Generac has driven innovation in the industry by considering generators from a unique perspective—yours. We evaluated the common problems involved in specifying, configuring, installing and maintaining generators, and created unique solutions to make Generac the best choice.

#### NATURAL GAS TECHNOLOGY LEADER - Reliable, cleaner, smarter

- Over 60 years of innovation and leadership within the power generation industry
- Generac designs and manufactures advanced gaseous-powered systems
- Over 2 million natural gas gen-sets installed and active
- Generac assembles more natural gas generators than anyone else

#### BEYOND STANDBY RATINGS - The flexibility to unlock value

- Industrial gas models are ready for Energy Management applications
- Products that can meet EPA certification requirements for emergency & non-emergency needs
- Only manufacturer to offer a wide range of products ready for Energy Management applications from 16 kW to 750 kW

#### PROVEN POWER - Response, power, longevity

- Wide range of diesel-powered generator solutions from 10 kW to 3.25 MW
- Our engines start fast and respond quickly to loads
- Full mobile line of diesel and gaseous generators with prime ratings

#### FACTORY-CERTIFIED TECHNICIANS - Support you can trust

- Over 4,000 certified technicians globally
- Online, classroom, and hands-on product training
- Full support from the design stages through the life of the product

- 550+ ENGINEERS WORLDWIDE
- 4.6 MILLION SQ. FT OF MANUFACTURING & DISTRIBUTION
- DOING BUSINESS IN OVER 150 COUNTRIES
- MANUFACTURED IN THE U.S.A.

## ENERGY MANAGEMENT APPLICATIONS

| ER      | What It Is             | What It Means  | What It Does For Me   |
|---------|------------------------|--|---|
| END USE | Demand<br>Response     | You get paid by the Grid to run your generators a few times a year when there is trouble on the Grid                                     | You can get paid anywhere from \$20-200,000<br>per MW of reduced load   |
|         | Peak<br>Shaving        | Most utilities and grids charge high rates for either<br>when you use the most electricity or for how<br>much you use during their peaks | By running your generators to avoid these peaks, you can save<br>tens of thousands of dollars per MW each year  |
|         | Peak Rate<br>Avoidance | Some utility tariffs charge up to 25 cents/kWh or more for your usage during a few hours in the late afternoon                           | By running your gens for a few hours you can avoid paying<br>2-5X your normal price - some sites pay up to 25 cents/kWh<br>during peak hours and less than 5 cents at night |

| ER     | What It Is  | What It Means   | What It Does For Me   |
|--------|---|---|---|
| SUPPLI | Congestion<br>Relief                              | Utilities sometimes have trouble getting power<br>to where it is needed. Local power sources<br>can alleviate these constraints     | A utility can defer or avoid an investment in a new line<br>or substation, and customers get reliable local power                                 |
|        | Transmission<br>& Capacity<br>Charge<br>Reduction | Coops often pay transmission charges to get power<br>to their members, and both utilities and Coops<br>have to pay capacity charges | Using generators within your service area<br>you can reduce these charges, where allowed<br>to by contractual arrangements                        |
|        | Dispatchable<br>Resources                         | Many Coops and some utilities do not or cannot<br>generate their own power to meet demand<br>within their service territory         | By encouraging the installation of gas generators behind the<br>meter of C&I customers, they are backed up and you have a<br>resource you can use |

Generac Industrial Power is great to work with, has a great reputation, has very professional staff, very responsive to clients and engineers' needs, and Generac can deliver total solutions, meaning not only generators, but also controls, enclosures, and other professional services.

### OUR ENGINE RELIABILITY IMPROVES THE RESILIENCY OF YOUR SYSTEM

#### RELIABILITY

- High durability valve and seat materials, and reduced angle of valve seats minimize friction
- With gaseous fuel's higher combustion temperature, Generac uses high strength and hardness materials - such as high silicon molybdenum, iridium and stainless steel - that are built to deal with higher temperatures
- · Optimized compression ratio to maximize energy conversion of the fuel and thus engine power

#### SYSTEM RESILIENCY

- All of Generac's engines are capable of meeting the requirements of NFPA 110, Level 1, Type 10 (<9 second quick start)
- Frequently used in mission critical applications including data centers and healthcare facilities
- Multiple units can be easily paralleled for system redundancy -Modular Power Systems (MPS)

#### THE LIFE CYCLE OF THE GENERATOR YOUR SINGLE SOURCE SOLUTION

In any application, Generac Industrial Power supports the customer at every stage of the power system life-cycle. Before any design goes into production, we evaluate, analyze and test every component down to the tiniest detail so you can trust your gen-sets will perform under the worst conditions. Still, great technology is nothing without exceptional and responsive customer service. If it's emergency support you need, our knowledgeable and skilled network of experts is on hand 24/7/365 to assist.



- Technical support available 24/7/365
- Generac engineering support for your nonstandard applications as required
- Over 4,000 factory trained and certified technicians across the globe



- Generac offers extended
  limited warranties
- Total cost of ownership calculator to fully understand operating expense



- A broad network of 30+ Generac Industrial Power Distributors (IDC's) service the entire power system
- Generac's IDC's support every system from the generators to the transfer switches to the control systems
- Long-term service contracts available to provide peace of mind



- Generac has distributors worldwide to help you find the best industrial generator for your needs
- Global manufacturing locations in North America, South America, Europe & China

### ENHANCED RELIABIL **REDUCED COMPLEXITY**

#### **MODULAR POWER SYSTEMS (MPS) TRULY INTEGRATED PARALLELING**

Generac has taken the complexity out of paralleling total power generators with our Modular Power Systems (MPS). MPS eliminates the expense and space required with traditional paralleling gear. Additional savings include: installation, setup and testing labor costs. MPS simplifies the complexity of installation and increases power system reliability.





99.999% Reliability with **Multiple Points** of Redundancy

On Engine Mounted System No Control Unplanned Room

Scalability for Planned and

Growth



More Cost Effective than Traditional Paralleling Solutions

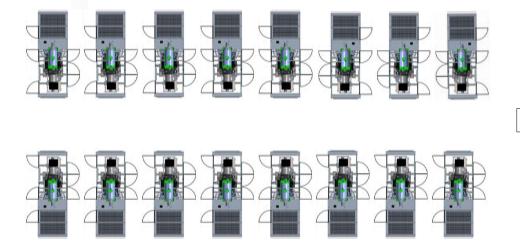


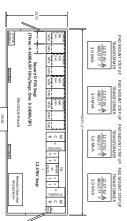
Loads are Short Lead Protected During Times with High Volume Servicing Production Engines



Gen-sets can be in Multiple Locations within the Same Site

#### **ADVANTAGE IN ACTION ENERGY MANAGEMENT PLANT - 10MW**





Courtesy of Sterling & Wilson Power Solutions

#### **EASE OF INSTALLATION COMPLETE SUPPORT FROM DESIGN TO INSTALLATION**

Generac's team of engineers and technicians have worked in the field for decades, so there isn't much we have not seen when it comes to design, configuring and installing gen-sets. From narrow streets that make it difficult to move units into place, to unique local installation codes, to complex retrofits that need to meet tight space requirements as well as updated NFPA and NEC standards, we have got you covered. We will take a deep dive to truly understand your needs. Our custom industry solutions combined with our experienced staff can help you get the job done right the first time.

#### **POWER RATINGS DEFINED**

We understand that different industries have different power supply needs. Therefore, Generac provides a range of power rating solutions that help you meet your load profile and run hour requirements.

|              |          | ANNUAL RUN HOURS |           |
|--------------|----------|------------------|-----------|
|              |          | Limited          | Unlimited |
| SOFILE       | Variable | ESP/DR           | PRP       |
| LOAD PROFILE | Constant | LTP              | СОР       |

#### **DEFINITIONS (PER ISO 8528 SECTION 13)**

Limited Annual Run Hours – 500 hour limit Unlimited Annual Run Hours – Unlimited hours Variable Load Profile – 70% average load factor Constant Load Profile – 100% load factor ESP/DR – Emergency standby power rating/demand PRP – Prime power rating LTP – Limited time rating COP – Continuous operation power rating

### **PROVEN SOURCE. POWERFUL SOLUTIONS.**

We are a global company with more than 4.6 million square feet of vertically integrated manufacturing and distribution capacity. We are one of North America's largest suppliers of power generation equipment with an intense focus on innovation that creates a disruptive force in the marketplace. We design and manufacture natural gas, diesel and bi-fuel generators that can work alone or be paralleled to provide you with a more robust gen-set solution. We also provide a world-class Industrial Distribution Network that stands behind you 24/7/365, as well as access to our in-house engineers and technical support.

Our inventive Industrial Power gen-sets are standing by, ready to meet virtually any application.

For more information or to learn more, visit us online or call us at:



### WWW.GENERAC.COM/INDUSTRIAL/BEYONDSTANDBY





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