

**MISSION CRITICAL**  
**PRIMARY & BACKUP POWER**  
**SYSTEMS**



**Industrial Service Solutions**

**SEAMLESS**  
**LOW-CARBON SOLUTIONS**  
**FOR DATA CENTERS**

A photograph of a large industrial facility, likely a data center, featuring massive green power units with silver insulated pipes and an overhead orange crane. The scene is dimly lit with industrial lights. A semi-transparent red and blue circular graphic is overlaid on the bottom right.

**Reliable, industry proven low carbon  
mission-critical power solutions for the  
life of the data center**



# Data Electric Solutions

Industrial Service Solutions is committed to reducing the emissions of carbon and suspended particulates from engineered power systems. In a select partnership with other leading technology companies, ISS has worked to engineer power products that exceed emissions targets by incorporating the latest alternative energy and system automation technologies.

ISS can supply individual components, or deliver a turnkey, clean primary energy and energy backup system. Our urea free Tier 4 diesel generators, high energy-density battery cells, and comprehensive remote monitoring and operation support services include the following:



## ENGINEERING COMPLETE POWER SYSTEM FACILITIES

### TIER 4 DIESEL GENERATORS

- + No SCR exhaust catalyst – no urea required
- + All cooling systems
- + All fuel systems
- + Optional sound-attenuated enclosures
- + Optional biofuel support, including supply

### APPLICATION-SPECIFIC SWITCHGEAR

- + Automatic generator startup, synchronization and load sharing
- + Cogeneration with utilities
- + Power Management System integration
- + Energy Storage System integration
- + Optional containerized enclosures



### POWER MANAGEMENT SYSTEM

- + Real-time data log for all power distributed
- + Seamless transition between power sources
- + Anti-blackout safety control system ensures no interruption of power to servers
- + Optional energy control supplying power from the most efficient source
- + Optional remote monitoring via ISS Spectare remote-access system

### SHIFT BATTERY ENERGY STORAGE SYSTEM

- + Stored energy supports the full data center during diesel power transition
- + Patented cooling technology delivers the highest energy rate per kilogram from our high energy-density battery cells
- + Optional KW demand control reduces OPEX cost by reducing utility power use
- + Optional real-time reporting of power savings and carbon footprint reduction
- + Optional remote monitoring system via ISS Spectare secure remote access system



# Zero-Emissions Backup Power from High Energy-Density Battery Cells



Industrial Service Solutions and channel partner Shift solve energy storage challenges with clean energy systems designed from the ground up to meet climate action goals. Low and zero-emissions operations are achievable through electric and stored energy hybrid backup power systems. A patented cooling technique for lithium cells ensure the Shift Energy Storage System delivers the highest energy storage rate per kilogram on the market today.

Modular energy cell design, controlled by real-time monitoring and programming, makes green backup power available for the full lifespan of the data center.

- + **MEGAWATT ++ BATTERY MANAGEMENT SYSTEM**
- + **CELLCOOL™ LIQUID COOLING**
- + **API INTERFACE**
- + **TCP ULTRA FAST INTERNAL COMMS**
- + **10 YEAR ENGINEERED DESIGN LIFE**
- + **THERMAL-STOP™ THERMAL RUNAWAY PROTECTION**
- + **65 TO 70% DOD FOR THE 10 YEAR LIFE OF THE BATTERY**
- + **SERIES PARALLEL, PARALLEL CONFIGURABLE**
- + **E-VENT™ SAFETY VENTING SYSTEM**
- + **MODULAR DESIGN IS EASILY SCALABLE AND SERVICED**
- + **-104°F TO +140°F OPERATING AMBIENT TEMPERATURE RANGE**
- + **ONPOINT™ REMOTE ACTIVE MONITORING & PROGRAMMING OPTION**





## Next-generation power storage and management systems help data centers meet or exceed emissions reduction targets.



The Spectare Intelligent Platform provides around the clock monitoring and analytics on any asset or piece of equipment in your facility. Our modern analytical tools and algorithms assist in the prevention of unforeseen downtime by predicting potential failures and remotely monitoring the wear and tear of an asset by tracking and monitoring operating history.

Spectare users are equipped with the ability to customize their experience and requirements within the platform. Our team of experts can easily workshop your needs into a visually pleasing display of information that is relatable to both the technical and commercial resources within your business at all levels.

### AI-DRIVEN ASSET MONITORING

- + Real-time visibility into asset status, condition, and production performance for improved uptime and reliability
- + Diagnose problems with AI-driven predictive notifications sent via SMS text and/or email to the right person at the right time
- + On-demand access to expert technicians who have the know-how to quickly troubleshoot, diagnose, and yield solutions remotely
- + Plug-and-play, simple to use, and easy to scale
- + ISNetworld® member with elite safety record and safety programs that exceed industry averages
- + Optional direct connect to ISS' [eindustrialsolutions.com](https://eindustrialsolutions.com) ecommerce platform for automated maintenance and wear parts' logistics via secure client portal







# Wabtec Diesel Engine Channel Partnership



The Industrial Service Solutions primary and backup power systems for data centers utilizes Wabtec diesel engines to supply continuous, uninterruptible clean power.

Wabtec V250 SDC diesel engines meet US EPA Tier 4 and IMO III certified emissions standards without after-treatment: clean, simple, evolutionary. Wabtec's EGR technology limits the formation of NOx in the cylinder, as opposed to removing NOx from the exhaust with an after-treatment system. This approach returns world-class fuel efficiency without the additional operating cost of urea consumption and eliminates hazardous urea logistics and recycling costs.

## **BENEFITS OF TIER 4 GENERATION WITHOUT AFTER-TREATMENT INCLUDE:**

- + Reduces design complexity, installation time and cost
- + Robust, proven design is simple to operate
- + World-class fuel efficiency and load response with virtually no visible exhaust
- + High engine efficiency and load response with more heat recovery available in jacket water system from EGR
- + Eliminates space and weight provisions for SCR systems and urea storage tanks
- + Eliminates OPEX associated with urea and catalyst replacement
- + Eliminates urea replenishment and handling requirements
- + Narrow footprint allows ease of maintenance and packaging advantages



A photograph of an industrial facility, likely a power plant or refinery, featuring large grey electrical control cabinets and a massive insulated pipe. A red semi-transparent circular graphic is overlaid on the bottom right. The text is centered over the image.

**These Tier 4 generators eliminate urea,  
meeting carbon-reduction goals while  
reducing operating costs**

# FULL-SERVICE FOR THE FULL LIFE CYCLE

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With more than 2,500 employees and over 45 locations across the United States, Industrial Service Solutions provides local knowledge with national experience. Each of our facilities is strategically positioned to support maximum quality and responsiveness for our growing customer base



Industrial Service Solutions

Paul Rembach

VP of Renewable Energy Power Solutions & Marine Systems

[paul.rembach@iss-na.com](mailto:paul.rembach@iss-na.com)

(888) 384-2111 840 Gessner Rd, Ste 950, Houston, TX 77024 [ISS-NA.com](http://ISS-NA.com)

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