

DEMAND RESPONSE MODULE

DEMAND SIDE RESPONSE
COMPLIANT

**BUILDING THE
ENERGY NETWORK
OF THE FUTURE**

POWER SONIC'S DEMAND RESPONSE MODULE (DRM)
has been designed to deliver innovative energy storage
solutions to a wide range of customers



Industrial



Utilities



Commercial



Developers

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DRM SYSTEM

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The **Demand Response Module (DRM)** is a fully integrated, high performance energy storage solution for medium and high voltage grid connection.

The **DRM** offers customers a diverse range of innovative energy storage solutions to maximize on-site clean, reliable power and energy savings. The advanced optimization software enables superfast response times to variations in demand and supply. This helps maintain grid stability and ensures reliable, high quality energy supply response through a range of applications.



FULLY INTEGRATED

A complete energy storage system with everything needed to connect to a building or utility network.



PROVEN TECHNOLOGY

Field proven technology designed for maximum life and high performance in any climate.



FULLY SCALABLE

Scalable to the space, power and energy requirements of any customer. Infinite scalability in modules of 10kVA and 500kVA.



GENERATE INCOME

Delivers exceptional returns on investment by outperforming criteria set by network operators.

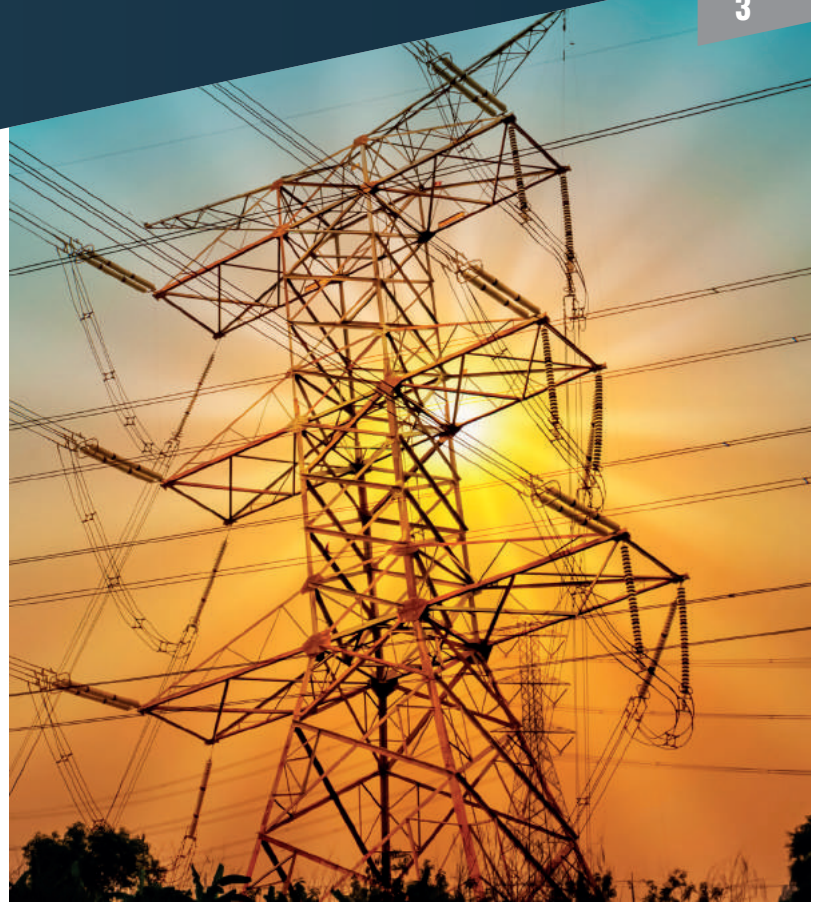
ENHANCING NETWORKS

Electrical energy is essential to modern life. It is our main resource for industry and infrastructure, and also the catalyst for growth and development.

The increase in electricity demand, fuelled by the electrification of transport and heating along with increased living standards globally, brings with it a changing electricity network.

We believe it's time to enhance the infrastructure and help create the electricity network of the future.

With the DRM we have the technical capabilities to create more resilient and reliable networks that can enable the intelligent interaction of microgrids, distributed storage and distributed generation.



THE MOST RESPONSIVE AND FLEXIBLE ASSET AVAILABLE TO NETWORK PROVIDERS

FREQUENCY RESPONSE



Quicker, more efficient response at lower costs with reduced emissions.

LOAD SHIFTING



Shifts energy consumption from one place to another to minimize congestion during peak times.

GRID RENEWABLE INTEGRATION



Manage renewable intermittency without needing generators in reserve.

TRANSMISSION CAPACITY SUPPORT



Supplies power at a distributed location rather than upgrading to new towers and lines.

CAPACITY RESERVE



Provides energy capacity to the network as a stand-alone asset.

CRITICAL BACKUP



Powers critical facilities if the grid happens to go down.

MICROGRIDS



Creates localized grid that can seamlessly disconnect and connect to the network.

BLACK START



Secure and quick restart to the network after it has gone down.

DISTRIBUTION SYSTEM PROTECTION



Absorbs and isolates intermittent local generation to protect the grid from sudden spikes in local load.

ENHANCING GENERATION

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Whether you develop or own solar, wind, or hydro generation systems, you want to ensure you get the best out of them.

Integrating the DRM with renewable generation allows you to capture all the power that is generated and distribute that power when needed. You are no longer forced to either use it or lose it.

The DRM also enables you to do more with your renewables including capacity firming, power output smoothing, and power absorbing during times of excess generation. With these capabilities the DRM will help you deliver cost effective energy on demand.

UNLOCK THE FULL POTENTIAL OF RENEWABLE ENERGY

FREQUENCY REGULATION



The most cost-effective way to manage short-term fluctuations in supply and demand.

RAMP RATE CONTROL



Reduce the impact of rapid power fluctuations due to sudden or transient conditions.

STORAGE & GENERATION



Enhance generation and earn more revenue with seamless integration.

CAPACITY FIRMING



Smooth out the intermittence of renewables by storing and distributing when needed.

BLACK START



Quick and secure restart of power generation if the grid goes down.

STORAGE & RENEWABLES



Keep all solar and wind energy generated in order to distribute when needed so no energy is wasted.

CAPACITY RELEASE



Sell more MW hours instead of holding reserves.

DEMAND RESPONSE



Discharge and charge in response to signals from demand response programs.

RENEWABLE OPTIMIZATION



Can reduce reliance on diesel and similar fuels by optimizing renewables to be used for more hours.

ENHANCING ENERGY CONTROL

Being a commercial or industrial energy user often locks you into the pricing structure provided by the electricity network. The DRM can give you the ability to control when you use network power or when you use your own power reserves. This can dramatically reduce the cost you are paying for your energy consumption.

Not only can you save money on your energy usage but you can also create an extra revenue stream, by selling back any excess energy generated back into the grid. The DRM can operate with utility networks to import and export power at near instant speed making it qualify for the highest paying demand side response programs from utility networks including FFR and DFFR.



REDUCE ENERGY COSTS AND PROTECT YOUR BUSINESS FROM OUTAGES

MANAGE POWER CONSUMPTION



The DRM can provide power during periods of peak usage to lower your overall consumption of network power. This can dramatically reduce demand costs. If you pay variable energy rates, it will also shift power consumption away from expensive periods and lower your electricity rates.

EMERGENCY BACKUP



A DRM onsite gives you the protection you need to ensure your operations are up, even if the network goes down. It will provide clean, dependable and uninterrupted power, which eliminates the need for multiple backup systems.

EXTRA REVENUE STREAMS



Create an extra revenue stream by connecting excess on-site energy generation with the energy markets. The DRM has been designed to operate with grid systems to import and export power at the highest standards for voltage and frequency regulations including, FFR and DFFR.



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SERVICES

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With decades of experience in developing, deploying and operating complete energy storage solutions, Power Sonic understands the true complexities of energy storage and brings global expertise and industry knowledge to every project.

From project feasibility, configuration and sizing, to project planning and management, we have the expertise and services to ensure your project is a success.

ADVISORY SERVICES

Our team of experts works with you to develop energy storage solutions that meet all technical, commercial and environmental needs. Power Sonic offers a full range of advisory services, including: cost-benefit analysis, project sizing and configuration, feasibility analysis, project planning and grid interconnection analysis.

DEPLOYMENT SERVICES

Our team has a proven track record of designing, planning, building and deploying successful energy storage solutions. With decades of experience Power Sonic can ensure your project is deployed on-time, on-budget and on-spec.

FINANCING SERVICES

With different financial models available including lease options and a wide range of demand side response programs, Power Sonic will explore all opportunities with you to maximize overall economics.

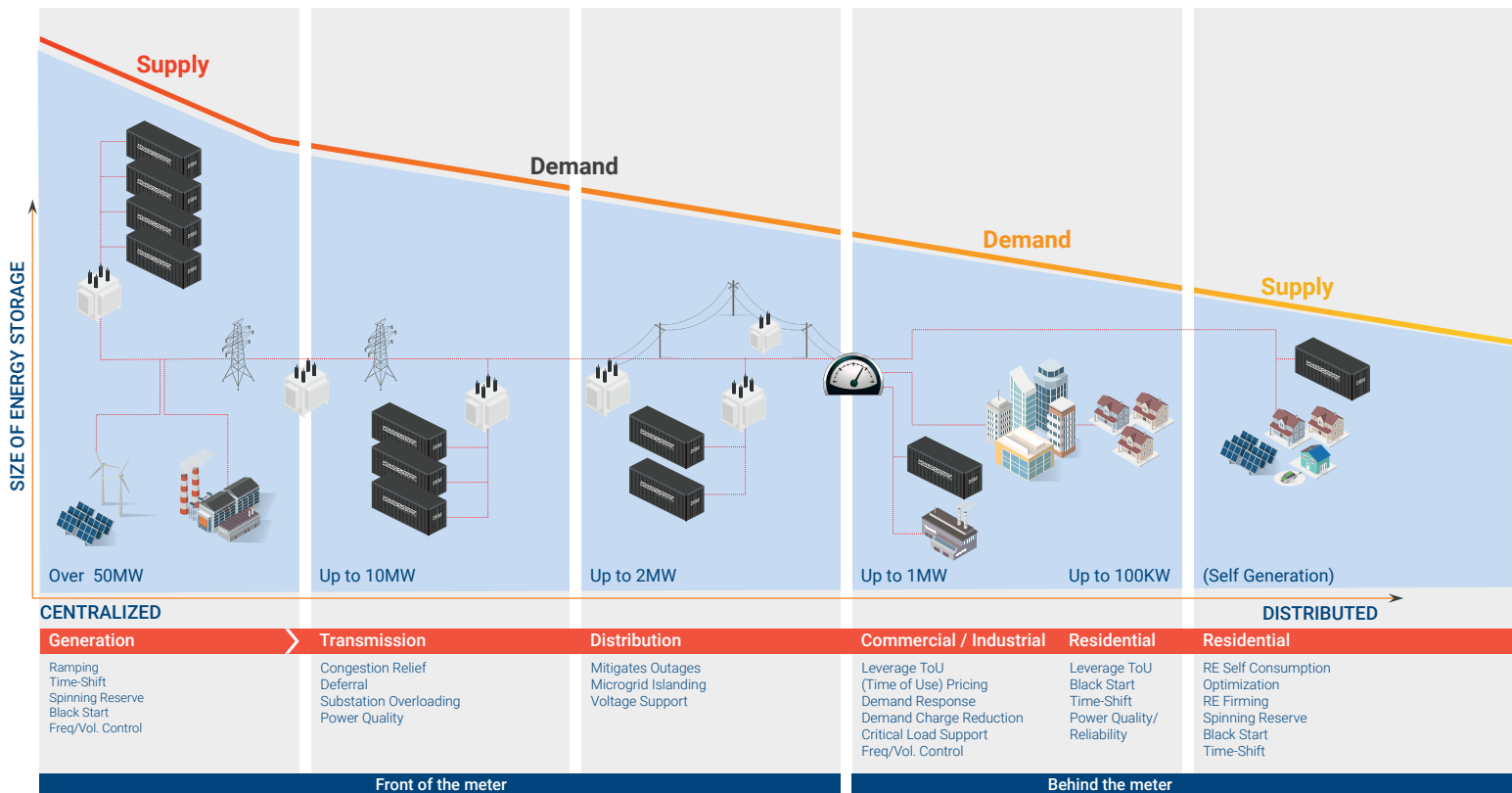
PROJECT LIFE SERVICES

Our project life services cover the entire life of the project from design all the way through to operations, maintenance and decommissioning. All services are tailored to meet your specific needs and can include maintenance, emergency repair and 24/7 customer support.



OVERVIEW OF DRM ENERGY STORAGE SYSTEM

Use and Possible Locations



WHY CHOOSE THE DRM?

BENEFITS AT A GLANCE

FUTURE PROOF

The DRM is designed with longevity in mind and utilizes the best available technology now and in the future.

RELIABILITY

Power supply in under 4 milliseconds and high redundancy delivers superb availability.

SCALABILITY

Scalable to the space, power and energy requirements of any customer. Infinite scalability in modules of 10kVA and 500kVA.

EFFICIENCY

A fully integrated, innovative energy storage solution that offers high efficiency of up to 99%.

PROVEN TECHNOLOGY

Cutting-edge, field proven technology that delivers optimal performance in any environment.

SAFETY

The highest level of safety goes into every aspect of the DRM from system architecture to battery technology.

RESILIENCE

Ensure your business is always on, even during prolonged power failures caused by severe weather, cyber crime or grid congestion.

FLEXIBILITY

A modular, scalable design delivers flexibility for all power and capacity needs.



ADDITIONAL REVENUE

Generate long-term and stable revenue in the capacity market or participate in lucrative short-term power markets.

ONE STOP SHOP

The complete solution, from feasibility analysis, planning and design through to build, maintenance and ongoing services.

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THE POWER SONIC BRAND PROMISE



QUALITY

Manufactured using the latest technology and stringent quality control, our battery products are designed to exceed in performance and reliability.



EXPERIENCE

Our focused approach to exceptional end to end customer experience sets us apart from the competition. From enquiry to delivery and everything in-between we regularly exceed our customers' expectations.



SERVICE

Delivery on time, every time to customer specifications. We pride ourselves on offering tailored service solutions to meet our customers' exact specifications.



To ensure safe and efficient operation always refer to the latest edition of our Technical Manual, as published on our website.

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