GENVAR™




# GENVAR-BLUE™ BATTERY ENERGY STORAGE SYSTEM

# Genvar Blue™ - Ditch the diesel. Power water systems with silence, savings, and sustainability.

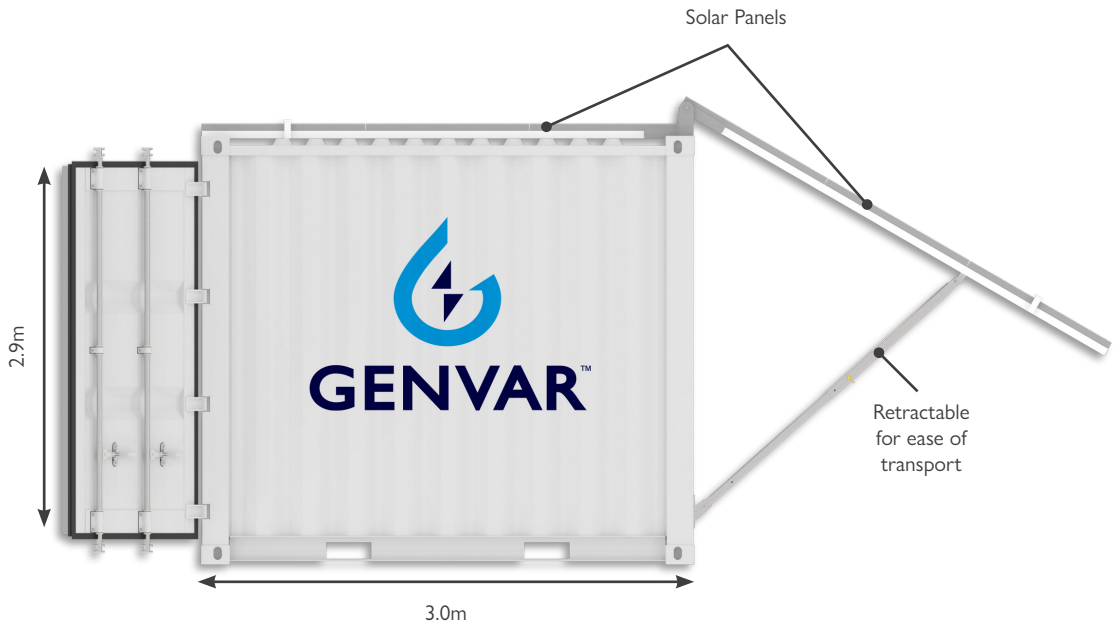


GENVAR-BLUE™

## Reliable, Quiet, Clean Energy for Pumps, Pressure Systems & Remote Locations

Genvar Blue™ is a modular Battery Energy Storage System (BESS) that can operate independently for silent, emission-free pumping, or work in hybrid mode alongside diesel generators or solar. When paired with a generator, it reduces diesel run-time and improves overall system efficiency, while still ensuring stable flow and pressure in locations with limited or no grid access. The table below outlines the best power-source configurations for different applications.

| Power source | Best for... |
|---|---|
| Grid | Backup support, peak-shaving, resilience during outages, and reducing reliance on unstable rural grids. |
| Generator | Reducing diesel consumption, improving generator efficiency, extending generator life, and smoothing start/stop cycles during low-load operation. |
| Solar | Low-maintenance, low-operating-cost systems for daytime pumping, remote sites, and emissions-free operation where fuel logistics are difficult. |
| Generator and solar | All-round flexibility: continuous operation, reduced fuel use, maximum resilience, and optimised runtime across both renewable and traditional sources. |
| Grid and solar | Lower operating costs, increased redundancy, reduced grid dependence, and improved sustainability for mixed-supply sites. |




**GENVAR-BLUE™** ***increased savings, less emissions, clean power***

## Battery Sizes & Runtime Options

Genvar Blue™ is available in 3 modular capacities (Actual runtime varies by load profile, charging strategy, and solar input.):

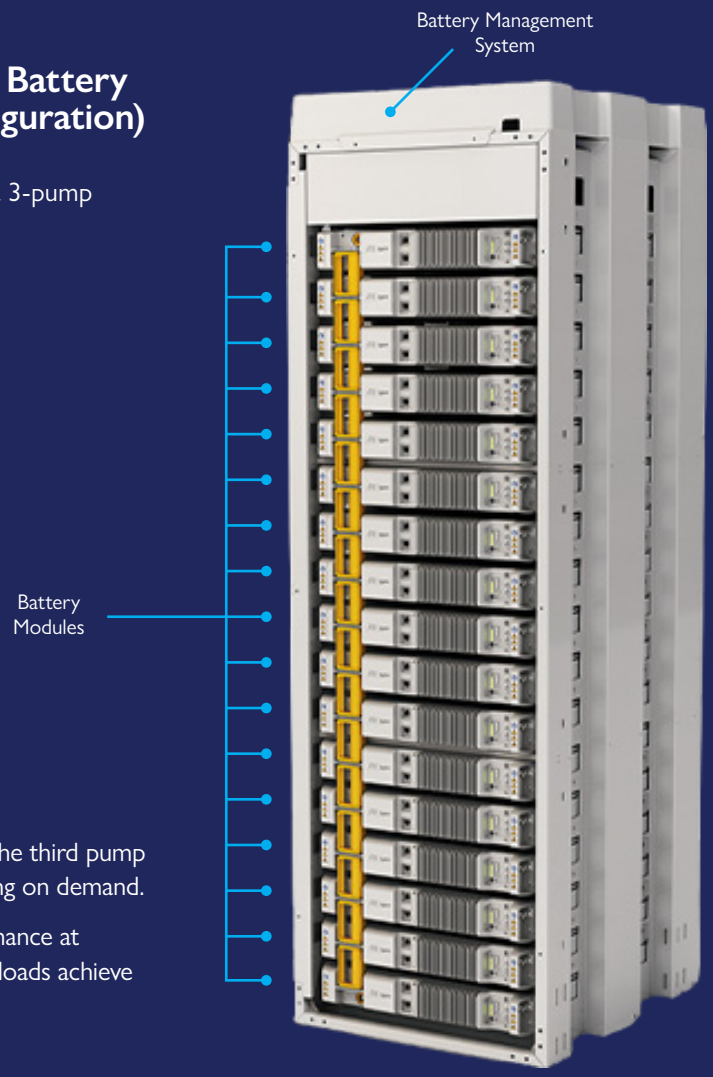
| BESS Size | Approximate Usable Capacity | Estimated Loads at 5-6 hrs Runtime |
|---|---|---|
| 140 kWh | Suitable for small pump systems or facility users. | ~25 kW load |
| 212 kWh | Suitable for community water infrastructure or grouped essential services | ~40 kW load |
| 318 kWh | Suitable for whole-of-community essential backup | ~60 kW load |




## Typical Three-Pump Water System Sample Battery Sizing Guide (Duty + Assist + Standby configuration)

Here's a simple explanation of how Genvar Blue™ can operate a 3-pump water system while maintaining common flow rates:

| 3-Pump Flow Duty | Total Peak Load (kW)* | Recommended Battery | Estimated Runtime** |
|---|---|---|---|
| 5 L/s @ 500 kPa | ~ 20 kW | 140 kWh | ~ 6 hrs |
| 10 L/s @ 500 kPa | ~ 30 kW | 212 kWh | ~ 6 - 7 hrs |
| 15 L/s @ 500 kPa | ~ 45 kW | 318 kWhv | ~ 8 hrs |




* Total peak load considers typical water-supply operation where the third pump is standby, and the system cycles between 1 and 2 pumps depending on demand.

** Runtime estimates are based on Genvar Blue™ battery performance at similar kW loads (e.g., 180 kWh → ~3.2 hrs at 45 kW; 35–45 kW loads achieve 6–10 hrs zero-emission windows).

# GENVAR-BLUE™

## How Genvar Blue™ Improves Water Supply Reliability

- **Silent power** for overnight pumping and pressure boosting
- **Stable pressure** without generator cycling
- **Zero-emission operation windows**
- **Reduced fuel transport and logistics**
- **Modular & relocatable** container or cabinet systems
- **Flexible integration:** works with generator, solar, or both
- **Fewer generator service intervals** (runtime reduction of 9–13 services per year shown in data)

## Typical Efficiency Gains (based on system behaviour at 35–45 kW loads)

- **Achieves a 25–41% reduction in $CO_2$ emissions** versus diesel-only operation
- **Up to ~58,000 liters of diesel saved per year**, reducing fuel transport and logistics needs
- **Supports daily zero-emission operation** for 6–10 hours under typical load conditions
- **Battery lifespan of over 10 years,** supporting long-term reliability and cost efficiency

## Power for Remote Locations, Water Systems, Facilities & More

Genvar Blue™ isn't limited to remote locations, it's suited to:

- Water bores, transfer stations & treatment plants
- Agricultural and horticultural supply systems
- Accommodation villages, industrial sites, utilities
- Resorts, off-grid facilities, and regional councils

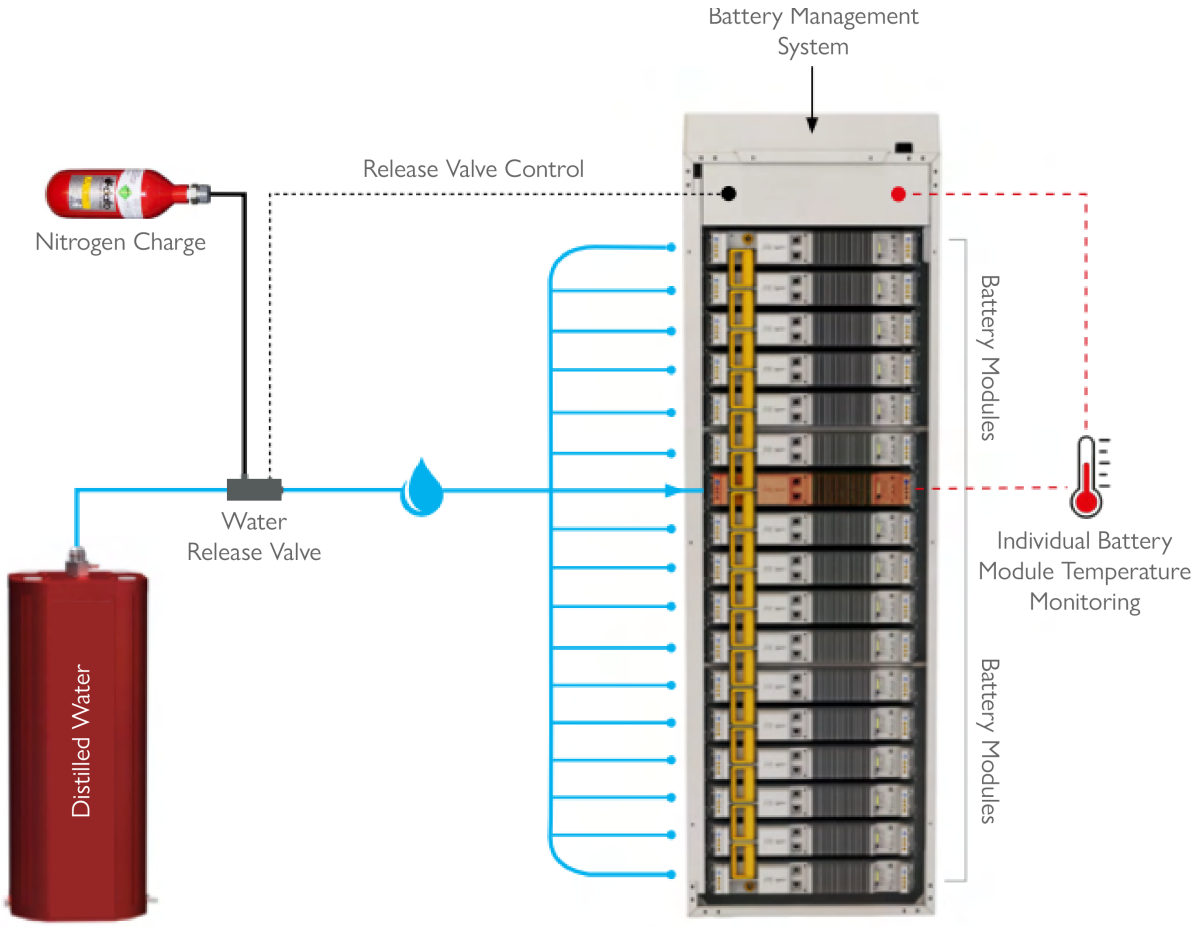
## Deployment Options

- Containerised standalone BESS
- Integrated pump + BESS container
- Outdoor climate-controlled cabinet
- Indoor rack-mounted systems
- Solar arrays, generator backup packages

Genvar Blue™ Hybrid Generator




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## Safety first

Our systems are the safest on the market with extensive internal safety and monitoring systems built in. From thermal runaway and fire suppression, to smoke, temperature and humidity alarms, built in door alarms, optional fireproof lining to 1100C for 2 hours and external emergency E-stops.

## Thermal runaway protection

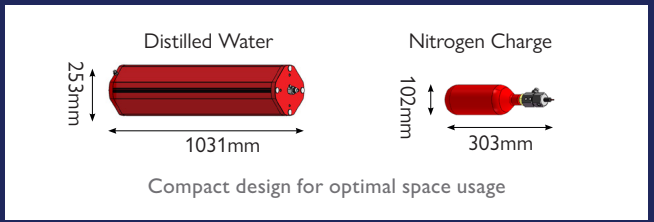
Fitted with a propagation protection system (PPS), the intelligent BMS monitors each battery module in real time for early signs of thermal runaway and will inject a fire inhibiting solution into any module that triggers the detection system.

Within 4 seconds of detection, the fire suppression fluid is injected into the module at greater than 10 litres per minute and extinguishes thermal runaway, immediately removing the risk of fire.

## Electrical fire protection

Fitted with Stat-X fire suppression technology, the Stat-X condensed aerosol offers numerous advantages over legacy-type fire suppression systems.

It has a 15-year service life and provides a total flooding application with airborne suspension of the Stat-X agent, remaining for up to 20 minutes to aid in the protection against reflash and it eliminates the need for gas-tight enclosure requirements.




Compact design for optimal space usage



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