



Hybrid Energy Container

Integrated Energy Solutions

SRC's Hybrid Energy Container is a decentralized energy solution, consisting of a diesel generator, energy storage and renewable sources such as solar and/or wind power. The system is a proven and reliable containerized energy system for industrial sites, off-grid communities and disaster-affected areas.

The Hybrid Energy Container is a customizable solution designed to meet specific client needs and is built to:

- Provide diesel fuel savings
- Reduce generator runtime and associated maintenance
- Provide voltage stability, energy and fuel metering and automated control

SRC specializes in developing these custom-built units based on actual site operational data. By customizing the design of each system based on site needs, SRC ensures that the maximum benefit is obtained by our client for the best cost. The system capacities range from 50 kW – 1 MW, and employ multiple technologies specifically suited to meet clients' needs.

Highly Efficient

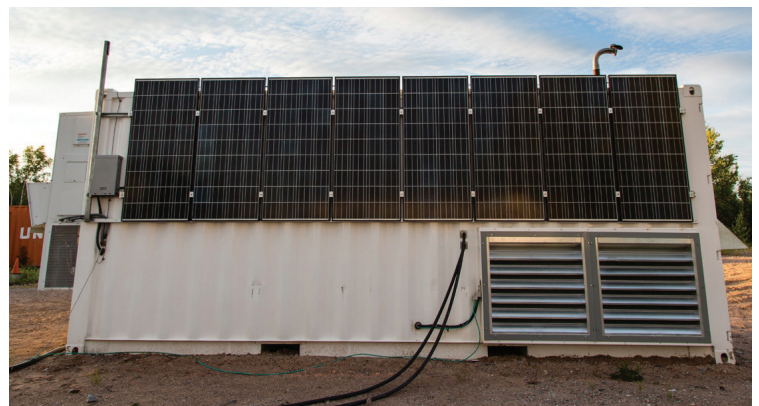
Employing a customizable combination of conventional and renewable energy sources with energy storage, this system is more efficient,

cost-effective and environmentally friendly than traditional diesel generators and is capable of achieving up to 70 per cent fuel savings.

Versatile and Reliable

The Hybrid Energy Container's rugged construction and intermodal container design is readily deployable, using conventional transportation infrastructure, and highly configurable to meet the specific needs of clients. The system is insulated and has its own heating, ventilation and air-conditioning (HVAC) system, allowing it to maintain reliable operation even in extreme climates.

Providing innovative energy management systems – close to the consumer.



The Hybrid Energy Container is Intertek certified, with ongoing maintenance and support available from SRC.



CASE STUDY: *Powering a Remediation Camp*

SRC is remediating the former Gunnar Mine and Mill site in northern Saskatchewan where an operating camp was established to house workers and contractors. The power needs for the camp were based on the requirements of the initial demolition phase of the remediation effort. The camp no longer has such a large workforce and its two 500-kW generators are oversized for current operation. Diesel fuel is a major operating expense for the camp.

SRC conducted extensive energy monitoring of the camp to characterize the site's load and then designed a Hybrid Energy Container to maximize fuel savings over the life of the remediation effort.

At the Gunnar Remediation Camp, the Hybrid Energy Container:

- Reduced diesel consumption by 86% through generator optimization
- Is expected to achieve a payback of < 12 months
- Reduced generator run time by 70%
- Consists of a 60-kW Isuzu generator, with 42 kW / 259 kWh of battery energy storage
- Has 1 kW of solar panels used to charge the batteries when the camp is not in operation

SRC conducts applied research, development, design, testing, piloting, scale-up, demonstration and technology commercialization relevant to our strategic economic sectors. We help clients solve technology problems, make improvements, seize opportunities, maintain competitiveness, increase productivity and develop new markets.

