

## **Yamabiko launches demonstration test of the shindaiwa<sup>®</sup> Multi-Hybrid Cube, a portable power generation system that contributes to carbon neutrality.**

The goal is to achieve a 100% off-grid power supply for GIKEN "Mobile ECO Cycle<sup>™</sup>" - a portable bicycle parking system - for the entire year.



Yamabiko Corporation (hereinafter referred to as "Yamabiko") has developed the shindaiwa<sup>®</sup> Multi-Hybrid Cube, a portable power generation system packaged in the form of a box that contains solar power, storage batteries, and a generator as its energy source, and has begun demonstration tests to provide all the power for the Mobile ECO Cycle<sup>™</sup>, a portable bicycle parking system manufactured by GIKEN LTD. (hereinafter referred to as "GIKEN")

### **shindaiwa<sup>®</sup> Multi-Hybrid Cube system configuration**

Solar panels + storage batteries + generator + power conditioner

### **shindaiwa<sup>®</sup> Multi-Hybrid Cube Features**

1. Portable cubes that generate electricity in a carbon neutral manner.  
Provides stable power without relying on the grid. The use of biofuel (RD) in the generator contributes to carbon neutrality. It can also be used as a source of power in times of disaster.
2. Simultaneous three-phase and single-phase three-wire output.  
It supplies three-phase power to the Mobile ECO Cycle<sup>™</sup>, a portable bicycle parking system, and simultaneously supplies single-phase three-wire power, such as battery charging for electric bicycles.

3. Remote monitoring management reduces manpower.

The amount of electricity generated by the solar panels, the amount remaining in the storage batteries, and the operating status of the generator (amount of fuel remaining, engine speed, etc.) can be monitored remotely, allowing for efficient maintenance and inspection.

### **Purpose of the demonstration test**

Yamabiko and GIKEN have agreed to begin working toward carbon neutrality and have started a demonstration experiment for the following purposes.

1. Utilizing the features of the shindaiwa® Multi-Hybrid Cube, which provides three-phase power in off-grid locations, the system provides three-phase power for GIKEN Mobile ECO Cycle™, a portable bicycle parking system.
2. The demonstration will last a year or more to verify data such as the effects of seasonal changes.

Yamabiko's shindaiwa® Multi-Hybrid Cube was exhibited for the first time at the 6<sup>th</sup> Construction Surveying Productivity Improvement Expo (CSPI-EXPO 2024) held at Makuhari Messe from May 22 to 24. As construction equipment is increasingly being powered by electricity, visitors expressed their expectations for the system's use as a three-phase power source at construction sites without grid power and as a battery charging solution for electric-powered equipment.

■ GIKEN LTD. News release: <https://www.giken.com/ja/news/release/gkn24nw013ja/>

■ shindaiwa® Multi-Hybrid Cube Reference Specifications

Dimensions	D5570×W2440×H2550mm
Weight	About 2600kg
Generation output	Three-phase (200V) Max 9.9kVA
	Single-phase three-wire (100/200V) Max 8.0kVA

■ About three-phase and single-phase three-wire

#### **Three-phase**

Electric power used to send electricity to large electrical products such as industrial electrical equipment, mainly used in factories, power plants, offices, stores and commercial facilities.

#### **Single-phase three-wire**

Electric power used to send electricity small electrical products, such as household appliances.

### **【About Yamabiko Corporation】**

Yamabiko, with its three brands KIORITZ, shindaiwa, and ECHO, develops, manufactures, and sells various products worldwide in three business fields: small outdoor power equipment (brush cutters, chain saws, etc.), agricultural management equipment (pest control machines, weed trimmers, etc.),

and general industrial machinery (generators, welding machines, etc.). In addition, to contribute to solving market issues such as manpower and labor saving, renewable energy, and carbon neutrality, we are promoting the development of products and systems with high safety, operability, and environmental technologies, and are actively engaged in creating new businesses such as electric power services and robot businesses.

■Headquarters : 1-7-2 Suehiro-cho, Ohme, Tokyo

■CEO : Hiroshi Kubo

■URL : <https://www.yamabiko-corp.co.jp/>



【About GIKEN LTD.】

GIKEN developed SILENT PILER™, the world's first reaction-based hydraulic pile jacking machine, installing piles without noise or vibration. GIKEN Group now actively promotes its press-in technology worldwide and contributes to the construction industry by proposing and implementing innovative solutions. The innovative press-in technology provides a unique solution and the adoption of this technology has spread to over 40 nations and regions.

■Head Office : 3948-1 Nunoshida, Kochi-shi, Kochi 781-5195, Japan

■President and CEO : Atsushi Ohira

■URL : <https://www.giken.com/en/>

【For inquiries regarding this matter】

Yamabiko Corporation

Corporate Planning Dept. Hamachi, Tajima

Tel:0428-32-6111

Email : [ir6250@yamabiko-corp.co.jp](mailto:ir6250@yamabiko-corp.co.jp)