



August 3, 2020

To whom it may concern

TOKAI Holdings Corporation
Katsuhiko Tokita, President & CEO
(Code No. 3167 Tokyo Stock Exchange First Section)

Launch of Sales of Gas Den Power, a Liquefied Petroleum Gas-Based Anti-Power Outage Measure for Companies and Public Facilities

TOKAI Holdings Corporation (hereinafter the "Company") hereby announces that TOKAI CORPORATION, a wholly-owned subsidiary of the Company, has launched sales of Gas Den Power, an anti-power outage measure system that uses liquefied petroleum gas to generate and supply power in the event of a power outage, as per the attachment.

As a business operator supporting the comfortable living of local community people, the Group will enhance its enterprise value by comprehensively proposing various life infrastructure services suitable for people's life such as for energy, information-communication and CATV under a vision of total life concierge (TLC) and by actively providing products and services needed by local communities.

Contact: Yoshihiro Taniguchi
Public Relations and Investor Relations Office
TEL: +81-(0)3-5404-2891
Email: overseas_IR@tokaigroup.co.jp

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TOKAI CORPORATION

Launch of Sales of Gas Den Power, a Liquefied Petroleum Gas-Based Anti-Power Outage Measure for Companies and Public Facilities

On Monday, August 3, 2020, TOKAI CORPORATION (Headquarters: Shizuoka City, Shizuoka Prefecture; Representative Director and President: Katsuo Oguri; hereinafter the “Company”) will launch sales of liquefied petroleum gas-based Gas Den Power, an anti-power outage measure, that is effective power securement system as a BCP measure in the event of a power outage caused by natural disaster, etc.

1. Background to development of Gas Den Power

Since July 2019, the Company has been distributing OTS House (near-future home where one can live as normal even in the event of power outage or water supply suspension caused by a disaster by achieving a complete self-sufficiency for water and power) as per Figure 1 mainly in Shizuoka Prefecture. Recently, the Company has been developing power supply system useful for BCP measures in a disaster particularly for securing power by leveraging OTS original large-capacity batteries contained in OTS House.*¹

Checking the power suspension periods in major disasters in recent years shows increasingly longer power suspension periods to have occurred regardless of disaster category, as evidenced by a suspension of about one week after large-scale earthquakes such as the Great East Japan Earthquake and the Kumamoto Earthquake as well as a suspension of around one week after the West Japan Torrential Rain (the end of June 2018). (From the Cabinet Office website page on disaster management)

To secure power over a long period of time as a BCP measure against such major natural disasters, it is essential to have equipment able to generate power even at the time of a power outage, in addition to large-capacity batteries. The Company has developed Gas Den Power, a power securement system that is effective as a measure in the event of an extended period of a power outage by leveraging expertise accumulated through the liquefied petroleum gas business, among its flagship service offerings, and by combining low-pressure liquefied petroleum gas power generator for disasters*² and OTS original large-capacity battery.



Figure 1: External image of OTS House

*1 Battery developed jointly by TOKAI CORPORATION and Variostor Co., Ltd. (ED-05 Series)

*2 Power generator developed jointly by Honda Motor Co., Ltd. and Yazaki Energy System Corporation (EU15iGP)

2. Characteristics of Gas Den Power

- Able to supply power up to 5 KVA over long hours

It is a system leveraging a power supply output of up to 5 KVA, a characteristic of OTS original battery.

Although it is effective to install a battery as a BCP measure for dealing with a power outage, the power supply stops once the battery is used up. While power generator would be an effective means for securing power, a small one is low in power supply level (1.5 KVA or so), being unable to provide power required on the business site in the event of a disaster. Although it is also possible to install a large power generator, you would run into challenges such as installation spot, price and fuel securement.

Gas Den Power can supply power up to 5 KVA by mutually complementing the characteristics of battery and small power generator, and power over long hours of at least 90 hours (for 11 days)*³ if an average consumption power required on the business site in the event of a power outage is 1,500 w.

* 3 If OTS original battery and battery capacity of 24 Kwh are combined and battery is 100% full. Number of days if utilization is 8 hours a day

- Use low-pressure power generator for disaster management

There are various ways for emergency power generation in the event of a power outage. Recent years saw an option of generating power by using solar power generation panels, it is often difficult to install such panels on the rooftop of company business buildings and existing facilities due to external factors such as constraint under a building agreement and the need for a relatively big work. Compared with this, a portable power generator used by the system has a benefit of being easily adopted as constraints on installation are only a few. While power generator fuels come mainly in the form of gasoline, diesel and cassette cylinder, they have a disadvantage of being difficult to store over a long period of time and get in the event of a disaster. Compared such power generator, low-pressure liquefied petroleum gas power generator is superior in fuel storage efficiency and security and can provide power easily in an emergency. You can continuously run a liquefied petroleum gas power generator used by Gas Den Power (maximum output of 1.5 KVA) for as many as 74 hours or so with a liquefied petroleum gas cylinder (50 Kg).

- Power generation, power storage and power supply system original for the Company (patent pending [Japan Application No. 2020-121101])

[Liquefied petroleum gas-based anti-power outage measure: Gas Den Power]

On July 15, 2020, the Company applied for patent for the system,*⁴ which is a system original for us.

* 4 Patent applicants: TOKAI CORPORATION and Variostor Co., Ltd. (joint application for patent)



Figure 2: Image of Gas Den Power

3. Specifications and price

A low-pressure liquefied petroleum gas-based power generator for managing natural disaster can be combined with three OTS original batteries of different power storage capacities. Can be chosen according to the company or facility size or the level of consumption power required for business continuation.

Set product number	OTS original battery			Low-pressure liquefied petroleum gas-based power generator		Preferred retail price (excluding tax)
	Model name	Power storage capacity	Power supply output (maximum)	Model name	Power supply output (maximum)	
GDP 0507	ED-0507A	7.5 kwh	5 kw	EU15iGP	1.5 VA	3.13 million yen
GDP 0512	ED-0512T	12 kwh	5 kw	EU15iGP	1.5 VA	3.83 million yen
GDP 0524	ED-0524T	24 kwh	5 kw	EU15iGP	1.5 VA	5.53 million yen

4. Sales target and future deployment

● Sales target

Companies: Enterprises staffed by 5 to 30 employees or so (business establishments)

Public facilities: Area residents' association hall and specified shelter

● Sales method

- Direct sales by the Company (mainly in Shizuoka Prefecture)
- Sales by members of the On The Spot Consortium for Home Co-existing with Rain and Sun*⁵ (nationwide)
- Sales via the internet

● Future deployment

The Company will continue to develop and propose BCP measure products for companies and various facilities by study a combination of a variety of advanced technologies accumulated through developing OTS House.

*5 An organization established jointly by TOKAI CORPORATION and Hideo Shimizu Office Company Limited in order to deploy sales of OTS House across the county (Established: June 1, 2020)

[Inquiries about this press release]

OTS Promotion Section, Engineering Group at TOKAI CORPORATION

TEL:054-273-4831

[Detailed outline of Gas Den Power: On the official website on OTS House]

<https://ots.tokai.jp/>