

New Businesses Creation

Principle and Outline

The Daigas Group has expanded its business domains to the Urban Development Business, Materials Solutions Business, and Information Solutions Business by taking advantage of technologies and strengths nurtured in the energy business and creating products and services that help resolve issues customers are facing. We will continue to work on the creation of new businesses, aiming to facilitate the Group's sustainable growth and contribute to the resolution of social issues.

Open Innovation Activities



Open innovation refers to an efficient approach used to seek solutions outside the company to the problems that Osaka Gas is unable to solve independently, with the aim of creating new value. Osaka Gas has pioneered this approach since 2009. Our efforts have led to the building and expansion of a network of partnerships (Open Innovation Platform) with universities, public research institutes, small enterprises, large corporations, ventures and overseas companies.

To find outside partners to work with, we have revealed details of our technology to-do list, something we have rarely done in the past, in order to solicit promising technical ideas from outside parties. After we launched full-fledged open innovation activities in FY2010.3, we have achieved many matchmaking opportunities. Some cases have actually led to commercialization and practical applications.

For example, gas pipe patrols using technology that automatically recognizes the part requiring construction with an on-board AI camera, and the use of drone technology in facility inspections are examples of value-added products created by combining our technology with external technologies.

The task ahead is to introduce some of the efficient technologies that we obtained externally, and together with our alliance partners, actively promote the creation of new R&D themes and creation of new businesses through the Open Innovation Platform.

Developing new EV-related businesses with partners

Expanding the use of EVs along with providing carbon neutral power sources is positioned as an effective means to achieve carbon neutrality by 2050. Against such backdrop, Osaka Gas is driving forward new initiatives, including capital and business alliances in the EV-related field with REXEV Co., Ltd., NEXT-e Solutions Inc., folofly Inc., and Terra Motors Corporation.

Specifically, we are considering business in a variety of fields through the alliance with these companies, such as utilizing EVs for the adjustment of power supply and demand and car sharing, converting mobility-derived reused storage batteries to grid storage batteries^{*1}, utilizing commercial EVs in the car leasing business, and proposing and developing EV charging infrastructure.

In addition, one of our Group companies, Daigas Energy Co., Ltd., launched in November 2023 the D-Charge service, where the company provides EV charging solutions that combine the installation of EV chargers with energy management^{*2} to commercial and industrial customers without any initial investment.

D-Charge offers both fast and regular chargers and meets the needs for base charging^{*3} and destination charging^{*4}. In accordance with customer needs, the service can also incorporate D-Green^{*5}, which supplies electricity from 100% renewable energy sources.

^{*1} The company renamed to Terra Charge Corporation in February 2024.

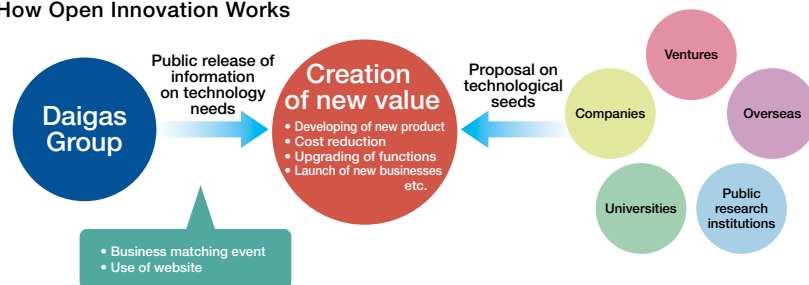
^{*2} Cutting peak power use and shifting peak power loads to reduce the impact of EV charger use on power demand.

^{*3} Charging at the base for the vehicle, such as home or company parking lots.

^{*4} Charging at the destination, such as commercial facilities, while staying there.

^{*5} Tariff for the supply of electricity from 100% renewable energy sources.

How Open Innovation Works



Launching “FitDish,” a regular delivery service for refrigerated pouched foods

Osaka Gas started in September 2023 the regular home delivery (subscription) service “FitDish,” using “Automatic Diagnosis” to deliver refrigerated pouch foods tailored to each customer’s needs based on inputs on lifestyle and preferences.

With “Automatic Diagnosis,” customers enter information on the Web about their family structure, allergies, and other preferences that match their lifestyle, and receive monthly menus which our proprietary algorithm estimates to be highly satisfying according to their needs. Personalization accuracy is further improved by evaluating the food afterwards. It eliminates the “menu-planning fatigue” of having to think about the menu, such as thinking “What should I cook today?” or “What should I cook for one more dish?”

The dishes we deliver are supervised by Osaka Gas Cooking School Co., Ltd. In order for our customers to eat with peace of mind, we use as few preservatives and coloring agents as possible and focus on a gentle, home-cooked taste that they will never get tired of. In addition, we also provide arranged recipes so that customers can enjoy the dishes they receive even more. Moreover, by delivering refrigerated pouch foods that do not need to be thawed, not only does it take less time to cook compared to freezing, but it also eliminates “freezer congestion” where the freezer is full and no more space is available, allowing space-saving storage in the refrigerator. Customers can also store the dishes in the refrigerator for about a month, so they can use them whenever they like.



Delivered once a month in a refrigerated pouch



Can be stored in the refrigerator to save space

Creating new business related to carbon neutrality

Osaka Gas is promoting technology evaluation and project development in collaboration with overseas startups. In FY2025.3, we invested in Koloma, Inc. (“Koloma”), a U.S. startup engaged in the exploration, development, and production of natural hydrogen.*1

The widespread adoption and utilization of carbon-free hydrogen and its derivatives, such as e-methane and ammonia, are crucial for achieving carbon neutrality by 2050, a goal set by over 120 countries and regions worldwide.

Koloma aims to commercialize natural hydrogen using its own data. We will work with the company to promote the production and use of natural hydrogen, which is expected to be an inexpensive and clean source of hydrogen.

In addition, the Company invested in FPR Energy Limited (“FPR Energy”), an Australian startup engaged in the development of next generation concentrated solar thermal system

(CST). Going forward, we will collaborate with FPR Energy to commercialize its technology and aims to contribute to the decarbonization of industrial heat demands. The CST system is being developed as a next-generation clean energy technology that efficiently converts sunlight into thermal energy for storage and supply, using a thermal medium that absorbs solar energy and stores it as heat, and the heat and steam generated from it can be used in various industrial and utility applications. FPR Energy was established in 2023 as a start-up to implement the next generation of concentrating solar thermal technology developed at Australia’s leading scientific research organization, the Commonwealth Scientific and Industrial Research Organization (CSIRO), into society.

FPR Energy has already completed a 1 MWt*2 scale demonstration and plans to develop the technology and optimize the operating system to scale up to 50 MWt by the end of 2026.

*1 Natural hydrogen is found in natural deposits (areas where specific resources or minerals are concentrated in underground rocks) located hundreds to thousands of meters underground. Its existence has been confirmed in various parts of the world, and development has been progressing in recent years, mainly in the United States and Australia. Some already established oil and natural gas drilling technologies can be used to extract natural hydrogen, and since greenhouse gas emissions from production are expected to be smaller, natural hydrogen, which is cost-effective and environmentally friendly, is expected to contribute to realizing a carbon-neutral society.

*2 MWt stands for megawatt of thermal energy, which indicates the capacity to collect and store 3,600 MJ of thermal energy per hour.

Creation of Innovation (FY2025.3 Results)

The Daigas Group is working to commercialize technologies it has cultivated, and also aims to create new businesses by combining the technologies and services of other companies with the strengths of the Group.

While working to create new businesses through co-creation with various organizations and external stakeholders, we further strengthened the new business creation functions of the Next-Generation Business Headquarters from FY2025.3.

Major social implementation examples

- Achieved faster and less manpower-intensive road surface leak inspections by using vehicles equipped with laser spectroscopic gas detectors and a navigation system that generates and navigates inspection routes.
- We launched an online gas education video service for overseas gas suppliers.
- Launched residential after-sales service centered on periodic visits in the new construction market.
- Introduced the “FAST* Channel” as content for the Sumai LINK TV Stick.
* “FAST” is an abbreviation for free ad-supported streaming TV, a broadcast-style video streaming service.
- Added an earthquake-sensing breaker that cuts off electricity when there is an earthquake of intensity 5 or higher as an option to “Mirupiko,” which monitors gas leaks or failure to turn off the gas.
- Launched “D-Remove,” a service with no initial investment to reduce CO₂ emissions from the process of removing and deodorizing volatile organic compounds, which cause air pollution.
- Developed and launched the world’s first AI-based carbon credit quality assessment service (Please see P.046 for details).