

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 Storage batteries directly connected to power grids to stabilize grids by storing electricity when there is excess power in the grid and discharging it when there is a shortage.

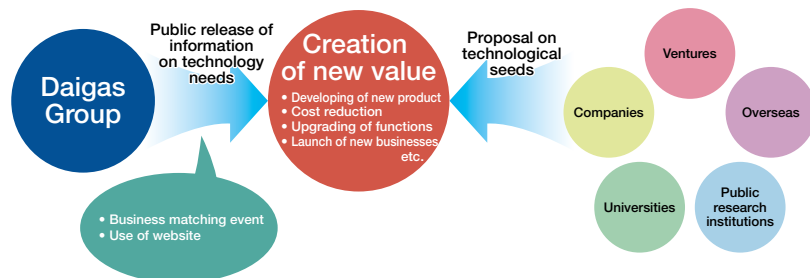
*2 Cutting peak power use and shifting peak power loads to reduce the impact of EV charger use on power demand.

*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



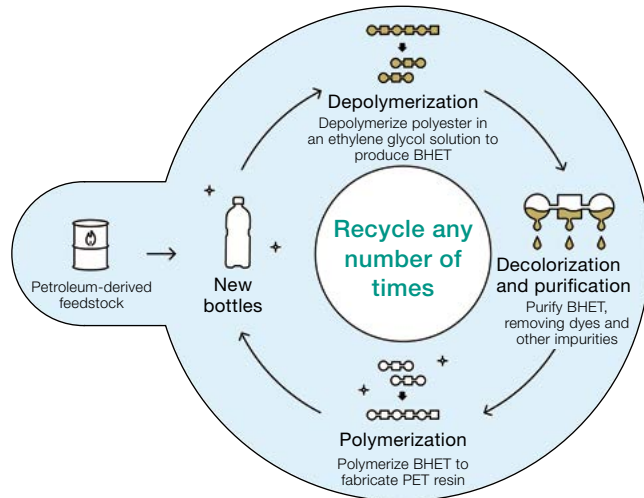
Developing new circular economy-related businesses with a partner

In December 2023, Osaka Gas entered into a capital and business alliance with JEPLAN, INC., which engages in businesses related to technologies for chemically recycling polyethylene terephthalate, a raw material for plastic bottles and other goods.

JEPLAN, INC. is one of the few companies in the world that has commercialized the horizontal recycling of plastic bottles to plastic bottles and polyester clothing to polyester clothing, using its proprietary PET chemical recycling technologies.

The Daigas Group will take advantage of its strong network and work to promote the recycling of plastic bottles and clothing in the Kansai area. The Group will also work on the reduction of costs and CO² emissions in the chemical recycling process with its energy-related solutions. Both companies will take advantage of their respective strengths and aim to contribute to the creation of new value and the promotion of a circular economy.

■ Recycling to make bottles from bottles



Source: "Making bottles from bottles" from JEPLAN, INC.'s website

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