First Exhibition at CEATEC 2019 – Future Living in 2030 Pictured by Daigas Group –

October 3, 2019 Osaka Gas Co., Ltd.

Osaka Gas Co., Ltd. (President: Takehiro Honjo) will run a booth for the first time as an energy company at CEATEC 2019, which will be held from Tuesday, October 15 to Friday, October 18 at Makuhari Messe.

Our exhibition is named "Society 5.0^{*1} TOWN – Planning area to establish a town in 2030 –". Under the concept of "proposing future living tailored to each individual", we will set up stages that allow us to propose more comfortable and convenient future living that can be realized by IoT devices and services. We will also introduce products and services that we offer not only in the field of energy but in various other fields as well by exhibiting our advanced efforts, including "LIFE UP Promotion^{*2}", a project for cyber-physical fusion in living space, which is promoted based on subsidies to be provided by the Ministry of Economy, Trade and Industry under the supplementary budget for fiscal 2018.

Through the exhibition at CEATEC, Daigas Group will introduce its technologies and services and will also aim for alliances with partner companies to co-create future living.

<Exhibition of Osaka Gas>

- 1. Schedule: Four days from Tuesday, October 15 to Friday, October 18 (10:00 a.m. to 5:00 p.m.)
- 2. Venue: Makuhari Messe (2-1 Nakase, Mihama-ku, Chiba City)
- 3. Exhibition area: Society 5.0 TOWN E056
- 4. Concept:

Proposing future living tailored to each individual



Image of Daigas Group's booth

5. Major exhibition items

<Main stage: Future living realized by Society 5.0>

As IoT becomes more popular, various kinds of home appliances will be expected to offer richer lives while being connected to the internet and mutually linked with other companies' cloud services. On the main stage, we will introduce Daigas Group's efforts to make people's lives richer and more convenient by offering kitchens, living rooms, and bathrooms customized to each individual in the near future, around 2030.

<<Kitchen>>

We will show you that internet connections for all sorts of devices such as gas appliances and refrigerators improves household efficiency and allows you to spend more time with your family or for yourself for a richer life.

<<Living room>>

Internet-connected home appliances and sensing technology make your living space more comfortable. ENE-FARM, solar power systems, storage batteries, and electric vehicles collaborate to generate, store, and control the power necessary for these devices and technology so that you can live more comfortably and in an eco-friendly way.

<<Bathroom>>

We will help you feel new experiences that you can never obtain using conventional bath systems, by offering a daily health check service that gives you vital data and an entertainment service that enables you to enjoy extraordinary experiences by appealing to your five senses using sound, light, and images.



Main stage "Future living realized by Society 5.0"

<Hands-on exhibition zone>

IoT-supported ENE-FARM

We will exhibit and introduce "ENE-FARM type S", which was launched in April 2016 to improve convenience and the comfort level of people's lives by using IoT technology. Currently, more than 80% of ENE-FARM products on the market are connected to the internet.

We will propose services that provide more secure and comfortable value to customers by collecting various data from the real world through IoT-compatible gas appliances and analyzing/utilizing them in cyberspace.

Key highlights

- Monitoring of power generating status and remote failure diagnosis service in an always-connected environment via our company's server
- Linkage with home appliance controllers and smart speakers
- Examples of efficient maintenance in an always-connected environment and with the use of Big Data

IoT compatible gas appliances

You can simulate the experience of using gas appliances linked with smartphone apps, which was launched on October 1, 2019.

Key highlights

- Virtual cooking using projection mapping
- Convenient, safety functions of IoT-compatible gas appliances
- Services that provide support for recipe creation, shopping, cooking, and cleaning

<Daigas Group zone>

We will exhibit Daigas Group's advanced activities and wide range of services that include not only energy but also products and services used to enrich customers' lives in various fields, and resources and initiatives for creating new value.

Key highlights

- Initiatives of CD Energy Direct, an energy company co-founded with Chubu Electric Power
- "NEXT21^{*3} remote tour" using ANA avatars (Joint project with ANA Holdings)
- "Open Innovation" that promotes collaboration with various partner companies
- "TORCH", a new business creation program run by young employees
- Initiatives of BAC (Business Analysis Center) consisting of data analysis experts
- Recommendation services that contribute to making customers' lives more comfortable using an IoT platform for gas appliances





IoT compatible gas appliances

Image of NEXT21 remote tour

*1 Society 5.0:

This is a concept adopted by the Japanese cabinet in January 2016, presenting an image of future society that can realize both economic growth and solutions to social issues through an advanced system that combines cyberspace and physical space.

*2 LIFE UP Promotion:

As a part of a project for cyber-physical fusion in living space, which is promoted based on subsidies to be provided by the Ministry of Economy, Trade and Industry under the supplementary budget for fiscal 2018, we aim to create and disseminate new services using data for living obtained from IoT home appliances and devices. Subsidies are provided to cover some sales promotion expenses incurred when designated companies give consumers benefits such as points and discounts. Osaka Gas provides services as a leading consortium company of this subsidy project. URL:<<u>https://cyber-physical.jp/osakagasconsortium/></u>

*3 NEXT21: This is a multi-family housing project constructed by Osaka Gas in 1993, with a purpose of demonstrating and proposing a concept of near-future urban multi-family housing in terms of the environment, energy, and living.

[Reference]

Overview of "CEATEC 2019 – Connecting Society, Co-Creating the Future –"

CEATEC 2019 is a comprehensive exhibition focusing on Society 5.0 that showcases innovative CPS/IoT technologies under the theme of "Connecting Society, Co-Creating the Future". Leading companies from inside and outside Japan gather, representing a wide range of businesses and industries, such as IT, electronics, mobility, finance, travel, and housing, in order to exhibit their advanced efforts to build a future society including their visions and business models. In 2018, 725 companies or groups joined and 156,063 people visited the exhibition.

- Event name: CEATEC 2019 (Combined Exhibition of Advanced Technologies)
- Theme: Connecting Society, Co-Creating the Future
- Schedule: Four days from Tuesday, October 15 to Friday, October 18 (10:00 a.m. to 5:00 p.m.)
- · Venue: Makuhari Messe (2-1 Nakase, Mihama-ku, Chiba City)

- Entrance fee: No charge (Registered visitors only)
- Official website: <u>https://www.ceatec.com/en/</u>