

Overview of the Gas Pavilion at EXPO 2025 OSAKA, KANSAI, JAPAN

March 23, 2023

The Japan Gas Association

In May 2022, the Japan Gas Association (JGA) decided to participate in EXPO 2025 OSAKA, KANSAI, JAPAN (Osaka-Kansai EXPO), and has since been working out details. We are pleased to announce the items of the Gas Pavilion, such as concept, name, design and other details, have been determined.

## 1. Pavilion concept

### “*Bakero*<sup>\*1</sup> – Shape Our Future!”

For our loved ones and the earth, as each of us significantly changes our awareness and actions in a daily life, our society would eventually be “reshaped” into a more hopeful place.

It has been over 150 years since a gas light was ignited for the first time in Japan. After that, the gas industry has contributed to changes to a less carbon society by switching raw materials from coal and petroleum to natural gas, which is much more environment-friendly, and by developing technologies that help with saving energy consumption.

And now, we believe that further evolution is necessary to achieve carbon neutrality by 2050. One of such challenges is a technology development to recycle carbon dioxide (CO<sub>2</sub>), which is considered a cause of global warming, and convert it into new energy called “e-methane”<sup>\*2</sup>. This technology makes CO<sub>2</sub> possible to circulate and transform itself with hydrogen into e-methane (energy for the future). Since CO<sub>2</sub> doesn’t increase during the process, this technology contributes to fight against global warming.

For “Designing Future Society for Our Lives”, let’s take a step at the Gas Pavilion.

\*1 This is a Japanese word that means “shaping something or oneself into a completely different form.” We here use the term “*Bakero*” to embody our hopes of making a dramatic shift from the status quo to a better direction.

\*2 Synthetic methane which is created from non-fossil energy sources, such as green hydrogen, and CO<sub>2</sub> via methanation process

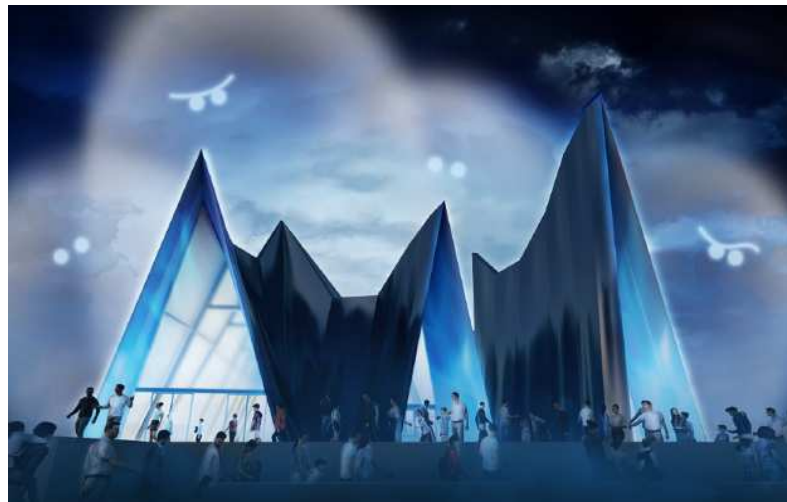
## 2. Pavilion name

### **“GAS PAVILION OBAKE WONDERLAND”**

The Gas Pavilion features OBAKE (friendly shapeshifter) characters as symbolize “*Bakero* – Shape our future!” and presents a mysterious world “OBAKE WONDERLAND”. We will provide a thrilling and exciting experience together with OBAKE.

We are also committed to creating the participatory entertainment pavilion that will be much impressive for children, potential leaders of our future, and provide them an original experience that will enrich their generous mind.

Please come to the Gas Pavilion and meet OBAKEs at there.



[Perspective drawing: GAS PAVILION OBAKE WONDERLAND]

## 3. Pavilion design

### **“Shapeshifting Pavilion”**

The Pavilion is covered with a mirrored membrane material that reflects surrounding landscapes. According to the weather, time of the day or the viewer’s angles, the pavilion changes its expressions in various ways and bring viewers feeling into a mysterious world.

The triangle shape that soars high into a sky is an entrance, it connects to a hopeful future.

The lighting-up during the night evokes a “Carbon-neutral Fire”, which symbolizes warmth and challenges of gas industry.

We also make an effort to promote 3R activities as “Reduce” the amount of materials maximally, “Reuse” membrane materials, and “Recycle” other materials. We will use “SPACECOOL”<sup>\*3</sup> (a radiative cooling material) for membrane material, so that it contributes to reduce the burden on air conditioning during the time.

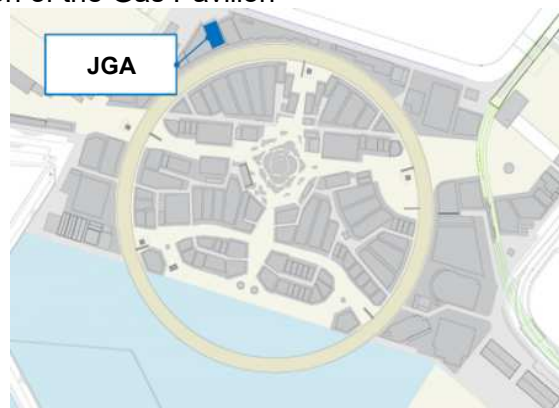


[Perspective drawing: Pavilion design]

\*3 A highly performing and highly durable optical film developed by Osaka Gas Co., Ltd. This new material blocks heat absorption from sunlight and the atmosphere, and achieves a lower temperature than it of the ambient air by releasing heat into outer space. It is manufactured by SPACECOOL Inc.

JGA keeps on working out the details for the success in Osaka-Kansai EXPO.

(Reference 1) Location of the Gas Pavilion



Courtesy of the Japan Association for the 2025 World Exposition

(Reference 2) Overview of the Japan Gas Association

Address: 1-15-12 Toranomom, Minato-ku, Tokyo, Japan  
Chair: Takehiro Honjo  
Members: 193 general gas pipeline service providers, etc.  
Purpose: An association of city gas suppliers, whose purpose is to contribute to society by developing city gas businesses, expanding the usage of natural gas, ensuring a stable energy supply and safety, and addressing environmental issues as well.