



- \*1 Segment income = Operating income + Equity in earnings of affiliates
- \*2The name of the segment has been changed from the "environment/nonenergy segment" to "life & business solutions (non-energy business)," effective from the fiscal year ended March 31, 2015.

  Osaka Gas repositioned the renewable energy business from the

(Non-Energy Business)

environment/non-energy segment to the LPG/electricity/other energy segment or to the international energy segment according to the details of individual business activities. For this reason, figures from the fiscal year ended March 31, 2015 on do not include the renewable energy business.

The Osaka Gas Group actively applies the technologies and know-how it has accumulated over more than 110 years in the city gas business in other businesses, including its material solutions business, real estate business, and information solutions business.

The Osaka Gas Group efficiently manages its operations through the selection and concentration of business activities, while constantly paying close attention to the conditions in each business.

In the fiscal year ended March 31, 2016, net sales totaled ¥221.7 billion. Segment income was ¥18.8 billion.

Life & business solutions (non-energy business) plays a major role underpinning the revenue base of the Osaka Gas Group as a stable source of earnings despite rapidly changing conditions in society that affect the energy business, such as dropping raw material prices and greater awareness of energy conservation.

# Material Solutions Business | Osaka Gas Chemicals Group

#### **Business Overview and Characteristics**

Osaka Gas employs coal chemistry technologies developed through the production of coal gas, as well as pharmaceutical-related technologies that were owned by the former Japan EnviroChemicals, which was fully integrated in April 2015, to develop and provide high-value-added functional chemical products.

In the field of fine materials, we produce and sell materials with fluorene derivatives that present excellent optical and heat-resisting properties, including resins for optical lenses used in smartphone cameras. In the field of carbon fiber, we produce and sell energy-saving molded heat insulation material used in high-temperature furnaces such as silicon

melting furnaces used in photovoltaic cell manufacturing. Moreover, in activated carbon, we produce and sell the SHIRASAGI® series, which is the top brand in Japan, as well as water purifier cartridges that use SHIRASAGI® activated carbon. In the preservatives sector, meanwhile, we produce and sell the XYLADECOR series, which is the top brand of protective wood coatings in Japan.

We will continue to expand our existing businesses by strengthening R&D and actively pursuing mergers and acquisitions to boost sales in the Osaka Gas Chemicals Group to 100 billion yen by the end of the fiscal year ending March 31, 2021.

### Initiatives in the Fiscal Year under Review

In the fiscal year ended March 31, 2016, sales declined in the fine materials sector. However, the addition of Mizusawa Industrial Chemicals, a subsidiary of Takeda Pharmaceuticals that produces and sells inorganic fine particles such as inorganic adsorbents and resin additives, to the Group in April 2015 resulted

in an increase in the net sales and current net income of the Osaka Gas Chemicals Group from the previous year. Activated clay



Osaka Gas Chemicals Group Net Sales / Net Income (Loss) (million yen) ■ Net sales ■ Net income (loss) 73,754 57.826 4,158 3.988 37,582 37,837 34,415 1,028 599 -330 12.3 13.3 14.3 15.3 16.3

# Global Expansion of the **Activated Carbon Business** Hiroaki Shigesada

Executive Officer, Division Director Activated Carbon Business Division Osaka Gas Chemicals Co., Ltd.



The activated carbon business is one of the key businesses of Osaka Gas Chemicals. It entails the production of activated carbon, which is used in water purification and sewerage treatment plants, the manufacturing processes of foods, beverages, and pharmaceuticals, as well as in water and air purification devices. We also handle the manufacture of cartridges and other related products in which activated carbon is used. In 2005, Japan EnviroChemicals, formerly a subsidiary of Takeda Pharmaceuticals, joined the Group, giving us the SHIRASAGI brand of activated carbon, which has a reputation for its high level of quality.

Our strengths lie in our high quality as well as our technical ability in design and processing, which allows us to develop and propose activated carbon with diverse functionality, in response to our customers' needs. Our competitiveness is derived from our ability to achieve the stable procurement of coconut husks or sawdust, which are used as raw materials, at an inexpensive price from the Philippines and Malaysia.

In conjunction with the strengthening of environmental regulations in developed countries and the increase in the standard of living in newly emerging economies, the global market for activated carbon continues to grow. In an effort to expand into the global market, we added Jacobi Carbons, a Swedish activated carbon manufacturing and marketing company, to the Group in 2014. Jacobi Carbons is a global activated carbon maker with a sales network spanning more than 100 countries worldwide, and boasts the largest share of the world's market for activated carbon made from coconut husks. Today, Osaka Gas Chemicals is engaged in domestic sales of coconut activated carbon, in which Jacobi Carbons has price competitiveness, and is introducing its technologies in Jacobi Carbons factories. Synergies are being derived from both companies, as reflected in improved production efficiency and efforts to make improvements in existing products. As a result of these efforts, the activated carbon sales of the Osaka Gas Chemicals Group, of which both we and Jacobi Carbons are members, was the second highest in the world last year.

In the future, we will accelerate our developments overseas. Using the technical capabilities cultivated in our business for the domestic market, we will develop and advance products with high added value for new markets, such as the automobile market, where the demand for environmental measures is expected to grow. In Japan, meanwhile, we will continue to place new products on the market, where high functionality is demanded for pharmaceutical and food product applications, and will expand sales by introducing Jacobi Carbons products into markets where there is a particular focus on costs, such as air purification and water treatment.

# Real Estate Business | Osaka Gas Urban Development Group

#### **Business Overview and Characteristics**

In addition to making good use of existing real estate held by the Osaka Gas Group, this business acquires new real estate and engages in a broad range of real estate operations, including leasing, sales, area development, research park business, and building maintenance.

Through these activities, we aim to provide environmentally friendly and comfortable residential and business spaces.



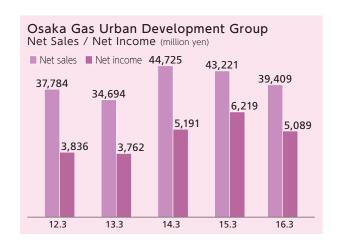
The Urbanex Tower Kobe Motomachi-dori

#### Initiatives in the Fiscal Year under Review

In the leasing business, we are striving to optimize our owned assets, such as through the acquisition of prime properties, and are maintaining high occupancy rates in both the office and residential sectors.

In the condominium business, while the overall number of units sold in the fiscal year ended March 31,2016 fell across the industry from the previous year, our own progress in sales has been steady.

In the research park business, we have achieved a high occupancy rate due to the enticement of overseas companies made possible through partnerships with Kyoto Prefecture, Kyoto City, and JETRO.



## Information Solutions Business | OGIS-RI Group

### **Business Overview and Characteristics**

OGIS-RI Co., Ltd. traces its roots back to developing and managing systems for the gas business of Osaka Gas. Today, this business develops cutting-edge systems, provides cloud-based services, and operates highly secure data centers by leveraging the innovative technologies and customer base of the OGIS-RI Group.



### Initiatives in the Fiscal Year under Review

We achieved steady progress on the development of systems for the financial and manufacturing industries, including the development of systems for energy businesses in response to the full deregulation of the retail electricity and gas markets, and our results, in terms of both net sales and current net income, improved over the previous year.

OGIS-RI Co., Ltd. merged with the Osaka Gas Research Institute of Behavior Observation in July 2015. Moving forward, we will utilize the know-how cultivated in our behavior observation business to propose high-value-added solutions to customers.

OGIS-RI Group Net Sales / Net Income (million yen) ■ Net sales ■ Net income 64.896 60,313 58.513 55,986 56,505 2.545 2.270 2,248 2,213 2,188 12.3 13.3 14.3