Field of Dreams 2020
Long-term Vision
and
Medium-term Business Plans

March 2009
Osaka Gas Co., Ltd.

[Notes] ‘FY XX’ means fiscal year starting at April, 20XX. (Ex.) FY08= Starting at April, 2008, ending at March, 2009
In order to realize the “Value Creation Management” which is laid out in our Group Management Principles, in 1999 the Osaka Gas Group formulated a long-term plan, “2010 Vision.” We have now entered the third phase of this long-term plan, and are currently pursuing “Design 2008,” a medium-term plan.

Despite major changes in our business environment, including soaring oil prices and adverse economic developments, we have been able to implement a series of initiatives as scheduled, including business expansion and enhancement of management efficiency.

We have worked out “Field of Dreams 2020,” which consists of a long-term vision that looks ahead to the year 2020 and the five-year medium-term business plans covering from fiscal year 2010.3 to fiscal year 2014.3 that aim at realizing the long-term vision.
Some of the major trends in the long-term business environment that we believe will continue to accelerate into 2020 include: greater commitment to global environmental protection, advances in environmental and energy saving technologies, environmental and security concerns heighten natural gas' role, and rising energy prices and increasing market volatility.
The Osaka Gas Group is determined to achieve sustainable growth both at home and overseas in order to provide its customers with comfortable lifestyles friendly to the environment and solutions in their businesses. We will continuously strive to explore our potentials utilizing our versatile and rich business foundations, human resources, and technical expertise, nurtured through natural gas and energy business over the past century.

We seek to evolve into global energy and environment business group and to implement management practices to become a corporate group of choice.
We aim to be a global energy and environmental businesses group with solid foundations making progress in the field of, “domestic energy businesses,” “international energy businesses along energy value chain,” and “environment and non-energy businesses.”

The domestic energy businesses will remain as the largest cash cow for the Group.

Meanwhile, we will achieve high growth in the international energy businesses and environment and non-energy businesses. Our goal is to increase the combined earnings of these two businesses to a level which matches that of the domestic energy businesses alone.

To this end, we will work on the qualitative and quantitative improvement of our business so that we can increase ROA to around 4% and ROE to around 9% on a consolidated basis over the long term.
What we intend do to achieve our vision in 2020: shape of Osaka Gas Group to come

1. Broadening business fields

2. Fortifying solid business foundations

In order to realize our vision, the Osaka Gas Group will work on the “broadening business fields” and “fortifying solid business foundations.”
**By “broadening business fields,” we mean enlarging breadth and depth of fields in existing and new businesses.**

- In the domestic energy businesses, we will continue to provide quality products, services, and maintenance, offer value-added in the form of energy-saving and security, pursue a multi-energy supply strategy including electricity, LPG, and new energies, and expand our services and multi-energy supply to a greater area while exploring our mainstay gas business in the Kansai region.

- In the international energy businesses, we will seek opportunities globally both in the upstream sector (resource development, etc.) and in the mid- and downstream sectors (trading, pipeline, gas supply, and power business at LNG receiving terminals and other facilities).

- In the environment and non-energy businesses, we will maximize and leverage our proven strengths in urban development, information, advanced materials, and other businesses, while at the same time starting up and developing environment businesses.

- By broadening this way in every direction to increase both breadth and depth of our businesses, we will seek to ensure the robust development of the entire Osaka Gas Group.
We are planning a total of 1.5 trillion yen in investments over the twelve years up until March 2021.

To break this amount down, 700 billion yen will be spent for the development of manufacturing and supply facilities over the long term and qualitative improvement of existing businesses for stable supply and a higher level of safety, and 800 billion yen will be set aside for the expansion of new businesses both at home and abroad.
Through the combination of these three businesses, we expect to create synergies and disperse risks.

For example, going upstream in the LNG business will not only boost our earnings, but also increase the stability and flexibility of our LNG supply. It will also serve as a natural hedge against fluctuations in oil prices and foreign exchange rates.

Non-energy businesses, such as urban development, information, and advanced materials, are expected to expand our earnings through efficient use of our assets, technology, and know-how. The growth of these businesses will help to push up the ratio of our non-energy businesses.

With each business growing as they benefit from the synergies which they create, our business risks will be spread out, allowing us to maximize the collective strength of the Group.
III. To realize our vision

2. Fortifying solid business foundations

(2) Building solid business foundations resistant to external changes through optimizing business portfolio

- The graph on the left shows how our earnings vulnerability to oil price fluctuations can be reduced when the tri-business setup has been established.

- If we successfully expand our upstream business, we can expect a stable profit flow even when oil prices fluctuate sharply.

- Meanwhile, the global expansion of business areas and the spread of multi-energy supply and environment and non-energy businesses will, for example, reduce risks associated with low yen, decrease our business’s dependence on the Kansai region, and lower the weight of the natural gas business, thereby reducing the impact that specific risk factors will have on our financial balance.

- By establishing the three mainstay businesses to create an optimal business portfolio, we will build up a resilient business structure capable of responding flexibly to changes in our operating environment.
In the residential sector, we will assist customers in reducing their CO₂ emissions by encouraging the spread of systems which reduce environmental impacts, including cogeneration systems (Ene-Farm, etc.) and “double” power generation systems that incorporate photovoltaic system technology as well.

In an attempt to improve level of services, we will proactively use information technology for reliable appliance servicing and offer safety and security services, including the Internet-based home security service I-rusu / Kurupiko.

In addition, we will utilize our resources in the natural gas business and introduce advanced energy systems and services. Among such systems and services are integrated housing services, which include a home energy management system with enhanced eco-friendliness and home security systems for the aged, remote diagnostic services for homes, and mist and mist steam generators for comfortable lifestyles.
In the commercial and industrial sectors, we will further develop our engineering for energy-saving, etc., which is our greatest strength. While supplying multiple energy sources, such as natural gas, power, LPG, and industrial gases, we will enhance value of services such as Internet-based remote monitoring of energy equipment and utility management which includes water treatment, in the hopes of exploring growth opportunities as an energy service provider.

Through alliances with other energy players in each region, we will broad natural gas supply infrastructure and, by utilizing their supply infrastructures, offer a broad range of high-value-added services both at home and abroad.

By enhancing use of eco-friendly natural gas and conservation, we aim to reduce our customers’ CO₂ emissions by a total of 10 million tons.
In order to ensure stable supply over the long term, we are taking every possible action.

For procurement of LNG, based on a long-term demand forecast, we will increase the number of suppliers and LNG-related projects which we are involved in, so that we can procure LNG in both a stable and competitive manner.

On the LNG receiving side, we will increase LNG handling capacities in the future and build facilities capable of accommodating larger LNG carriers, while at the same time refurbishing production facilities in a systematic manner.

On the gas supply infrastructure side, we are expanding our supply infrastructures and building pipeline networks for stable supply. In addition to the Mie-Shiga Line, we are considering the construction of a gas pipeline from Himeji to Okayama.
We are undertaking a series of programs designed to provide a reliable and safe supply of gas and other energy services.

To assure the safety of pipelines, we will focus on the repair of gray-cast iron pipes and complete such work by the end of fiscal 2015, ahead of the original schedule. In so doing, we will actively utilize new technologies to proceed with the work effectively.

Concerning safety assurance at customers, we will accelerate the ongoing program to promote of safer gas appliances. At the same time, we will make assiduous efforts to eradicate accidents by penetration of alarms, reinforcing safety monitoring activities, and further pursuing the safe and secure function of gas appliances.
This April will see the start of operations at the Semboku Power Plant, which will raise our power capacity to approximately 3,000 megawatts including both Japan and overseas. Our goal for the power business is to make it another cash cow along with the gas business by further increasing capacity and reviewing the portfolio of this business.
On the upstream and energy trading side of the international energy businesses, the Osaka Gas Group has already gained a stake in seven different upstream interests. Going forward, we will develop existing upstream operations and acquire new ones to increase the volume of LNG that we are involved in, thereby ensuring a stable and competitive supply of LNG.

Our goal is to hold around 15% of upstream interests out of the total LNG transactions in the world by 2020.

Also, through the ownership of LNG as per equity holding for own off-take and marketing, we will develop the energy trading business by possessing overseas LNG terminals and vessels, in order for us to acquire more interests and achieve flexible LNG procurement in response to the ups and downs of domestic demands.
In the mid- and down-stream fields, we will expand the pipeline and gas distribution businesses and IPPs (Independent Power Producers), etc. on the premise that stable earnings can be expected.

We have already been involved in several IPPs and pipeline projects. We will broaden our portfolio primarily in countries with a limited country risk in Europe, North America, Asia, and Oceania as we utilize the human resources and know-how of the Group.
The environment and non-energy businesses has grown to become a 190 billion-yen business.

In areas where we have already established a presence, including urban development, information, and advanced materials, we will draw upon our strengths to expand businesses.

At the same time, we will pursue opportunities presented by the environment and energy-saving business in the areas of photovoltaic power generation, biomass, and environmental engineering by applying our proprietary technologies and know-how and making strategic investments.

While offering advanced products and help to reduce stress on the global environment, we hope to double the size of this business by the end of March 2021.
We will dedicate ourselves to development of the technologies which underlie our business and strategic use of information technology.

Our technological development priorities will be: enhanced competitiveness of residential energy-saving systems such as fuel cells, higher energy-saving performance of commercial and industrial appliances, substitute natural gas production engineering, new construction methods and technology that will raise the level of safety and reduce costs, and technology for realizing a low carbon society such as renewable energy and hydrogen utilization.

We will develop these technologies both promptly and efficiently by way of “open innovation,” through which our proprietary technologies and third-party knowledge will be integrated.

In addition, we will strive to improve various aspects of our operations and our productivity through the “service science” method, which is based on ergonomics and environmental psychology.
In order to make this “Field of Dreams 2020” a reality, we will reorganize our group structure.

In each business field, we will establish an optimal organizational setup, while at the same time strengthening inter-divisional coordination within the Head Office.

As our businesses grows, we expect that our headcount will increase as well. We will, however, make ours a lean and mean organization by reviewing the personnel system, stimulating personnel exchange within the Group, and improving labor productivity through active use of information technology.
VI. Management Goals

Long-term management goals for the Osaka Gas Group

(1) Broadening business fields

Establish the three core businesses of “domestic energy businesses,” “international energy businesses,” and “environment and non-energy businesses” by proactively making growth-oriented investments. Our goal is to match the earnings of the gas business in home area to those of other businesses by around FY2013.

(2) Contribution to the environment

Actively reduce stress on the global environment through the spread of eco-friendly natural gas; provision of efficient equipment, systems (fuel cells, cogeneration systems, etc.), and energy-saving programs; and development of renewable energy.

(3) Enhancement of corporate and business quality

Fulfill a high level of CSR as an excellent company which renders services to people’s lifestyles, businesses, and communities, while more than meeting growing social expectations (level of commitment, disclosure).

We will put everything we have into achieving our four long-term management goals, namely, “broaden business fields,” “contribution to the environment,” “enhancement of corporate and business quality,” and “increased corporate value.”

First of all, we aim to “broaden business fields” by establishing the three core businesses: “domestic energy businesses,” “international energy businesses,” and “environment and non-energy businesses.”

We will help to reduce environmental impact through our dedication to the environmental business, including the spread of natural gas, offering of efficient equipment and systems and energy-saving programs, and development of renewable energy.

As for “enhancement of corporate and business quality,” we will more than meet the growing social expectations of us as we fulfill a high level of CSR as an excellent company which renders services to people’s lifestyles, businesses, and communities.
Regarding how we will go about improving our asset and capital efficiency, we will make constant efforts to increase our profit margins with the long-term goal of approximately 4% ROA and 9% ROE on a consolidated basis.

While remaining committed to stable dividend payment, we will change our target payout ratio from “20% or over on a non-consolidated basis” to “30% or over on a consolidated basis,” so that we can give the fruits of our growth back to our shareholders. With regard to share buybacks, we will adhere to our conventional policy, namely, that we will repurchase our own shares flexibly when we believe that our financial condition and cash flow situation allow us to do so after making investments in the future growth of the business.

In order to maintain financial soundness, we will conduct quantitative risk management, while seeking to maintain a “shareholder’s equity ratio of 40% or over” and a “ratio of interest-bearing debt to equity of approximately 1” over the mid- and long-term.

As a part of “quantitative risk management,” we will set a permissible quantity of risk for the entire Group and invest in business opportunities within that quota. We will continue to make major investments in opportunities around the world and seek to maximize their returns, but at the same time we will strengthen our investment risk management so that we can control the balance between such returns and risks.
The Osaka Gas Group will continue to take up challenges in a variety of fields both in and outside of Japan. In so doing, we will grow together with our employees and, as we strive to achieve this Vision and Management Plan, we hope to contribute to the global environment and the comfortable lifestyle and business development of our valued customers.
1. Forecast of Energy Transaction Volume
2. Forecast of Gas Sales Volume and No. of Customers (Non-consolidated)

<table>
<thead>
<tr>
<th>Year</th>
<th>Wholesale (100 million m³)</th>
<th>Residential (100 million m³)</th>
<th>N. of customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2008</td>
<td>78.7</td>
<td>2.4</td>
<td>6.94 million</td>
</tr>
<tr>
<td>FY2009</td>
<td>79.0</td>
<td>2.9</td>
<td>7.18 million</td>
</tr>
<tr>
<td>FY2010</td>
<td>83.5</td>
<td>4.0</td>
<td>7.2 million</td>
</tr>
<tr>
<td>FY2011</td>
<td>89.7</td>
<td>4.5</td>
<td>8.5 million</td>
</tr>
<tr>
<td>FY2012</td>
<td>94.8</td>
<td>4.8</td>
<td>9.2 million</td>
</tr>
<tr>
<td>FY2013</td>
<td>92.3</td>
<td>4.3</td>
<td>9.0 million</td>
</tr>
<tr>
<td>FY2020</td>
<td>100.0</td>
<td>4.4</td>
<td>10.0 million</td>
</tr>
</tbody>
</table>

1m³ = 45MJ
3. Capital Expenditure (FY2009 - FY2013)

- Subsidiaries
- Incidental Business
- Operational Facilities
- Distribution Facilities
- Production Facilities

Total ¥420 billion
## 4. Total Operating Revenues and Assets

<table>
<thead>
<tr>
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<th>FY2008/E</th>
<th>FY2013/E</th>
<th>FY2020/E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic energy businesses</td>
<td>1,320 billion</td>
<td>1,490 billion</td>
<td>1,630 billion</td>
</tr>
<tr>
<td>International energy businesses</td>
<td>10 billion</td>
<td>70 billion</td>
<td>220 billion</td>
</tr>
<tr>
<td>Environment and non-energy businesses</td>
<td>195 billion</td>
<td>240 billion</td>
<td>350 billion</td>
</tr>
<tr>
<td>Consolidated adjustment etc.</td>
<td>-190 billion</td>
<td>-200 billion</td>
<td>-200 billion</td>
</tr>
<tr>
<td>Consolidated operating revenues</td>
<td>1,335 billion</td>
<td>1,600 billion</td>
<td>2,000 billion</td>
</tr>
<tr>
<td>Consolidated total assets</td>
<td>1,600 billion</td>
<td>1,850 billion</td>
<td>2,100 billion</td>
</tr>
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</table>

*The above figures are based on an oil price assumption of $100/bbl and a forex assumption of ¥100/US$ (reference values).*
5. Technological Developments - (1) Residential Energy Supply Systems of the Future

- Efficient power / heat supply through "cogeneration + photovoltaic power generation + storage batteries"
- A home energy management system achieves optimal energy combinations for energy-saving and reduction of CO2 and costs.
- Automated gas meter check and security services via ultrasonic meter’s communication function

- Desiccant air conditioning
  Achieves both efficient use of waste heat and comfort

- Home energy management system
  Total management of residential energy

- Ultrasonic meter
  Real-time meter check & communication

- Visualization
  Energy-saving tips and awareness

- Residential cogeneration
  Generates power with gas, recycles waste heat, high total efficiency

- Double power generation
  Energy-saving and cost reduction through combination of cogeneration systems and photovoltaic power generation

- Visualization
  Energy-saving tips and awareness
Form a heat/ electricity energy network through combination with renewable energy technologies such as cogeneration, photovoltaic generation, wind power, and biomass. Through the integrated application of the network, achieve optimal energy management friendly to the environment of the entire city, and then spread this area-wide service to other areas.
## 5. Technological Development – (3) Product Development

### Residential appliances
- Improving performance of ENE-FARM
  - Reduce delivery prices for full-scale spread
  - Enhance durability for lower maintenance costs
- Launch highly efficient and advanced Solid Oxide Fuel Cells (SOFCs)
  - Lower costs and increase durability for commercial launch
  - Increase efficiency and reduce sizes for greater diffusion in the condo / small business markets
- Utilize steam generation technology
  - Offer value-added through unique use of gas-generated steam
    - ovens, dishwashers, rice cookers, heaters, steam guns, etc.

### Commercial / industrial appliances
- Higher efficiency A/Cs, cogeneration systems, and boilers
  - “Super high efficiency GHP” with a built-in freezer which directs an engine’s waste heat to supercool refrigerants
    - (jointly developed by three gas companies)
  - “High efficiency gas engines” using Homogeneous Charge Compression Ignition (HCCI) technology
    - (jointly developed by four gas companies)
- Pursuing energy-saving performance:
  - energy saving gas boilers, etc.
- Advanced commercial kitchens
  - Expand the Suzuchu lines
  - Improve functionality of gas ranges
    - design, cooking performance, etc.

Reference
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5. Technological Development

(4) Stable Supply and Safety, Low-carbon Society, Advanced Business

<table>
<thead>
<tr>
<th><strong>&lt;Stable supply, safety&gt;</strong></th>
<th><strong>&lt;Advanced business&gt;</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply substitute natural gas (SNG)</td>
<td>Osaka Gas Chemicals</td>
</tr>
<tr>
<td>Technology to produce SNG from low grade coals, etc. as a risk hedge against short supply or rising prices of LNG</td>
<td>Advanced fine materials for LCD / lens markets (better workability, etc.)</td>
</tr>
<tr>
<td>Enhance liquefaction technology through participation in the Sunrise PJ, and improve engineering capabilities for the &quot;coalbed methane gas field&quot; and the &quot;offshore natural gas field liquefaction plant&quot;</td>
<td>Electrode materials technology which reduces storage battery costs</td>
</tr>
<tr>
<td>Hydrogen production</td>
<td>Osaka Gas Information System Research Institute</td>
</tr>
<tr>
<td>Concentration of coal mine methane</td>
<td>Promote &quot;100-year architecture,&quot; which optimally integrates &quot;model base development (system visualization technology)&quot; with system reuse technology</td>
</tr>
<tr>
<td>Collect and concentrate coal mine methane discharged into the atmosphere when digging coals and put it to efficient use</td>
<td>Strategic use of photovoltaic power generation, solar thermal conversion, and biomass</td>
</tr>
<tr>
<td>Produce synthetic gases through the A-ATG process</td>
<td>Incorporate these technologies into energy systems, start up new businesses</td>
</tr>
<tr>
<td>Make efficient use of associated gases combusted for disposal when producing crude oils</td>
<td>Electrode materials technology which reduces storage battery costs</td>
</tr>
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<table>
<thead>
<tr>
<th><strong>&lt;Contribute to a low-carbon society&gt;</strong></th>
<th><strong>&lt;New construction methods&gt;</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology to produce SNG from low grade coals, etc. as a risk hedge against short supply or rising prices of LNG</td>
<td>- Raise safety level via the advanced live joint seal method (reinforcing the inside of pipeline joints)</td>
</tr>
<tr>
<td>Enhance liquefaction technology through participation in the Sunrise PJ, and improve engineering capabilities for the &quot;coalbed methane gas field&quot; and the &quot;offshore natural gas field liquefaction plant&quot;</td>
<td>Battery-operated alarms, ultrasonic meters</td>
</tr>
<tr>
<td>Hydrogen production</td>
<td>- Raise level of safety and services by introducing a battery-operated alarm with an energy-saving sensor and a compact ultrasonic meter capable of instantly measuring flow rate</td>
</tr>
<tr>
<td>Concentration of coal mine methane</td>
<td></td>
</tr>
</tbody>
</table>
Thank You!

Disclaimer
Certain statements contained herein are forward looking statements, strategy and plans, which reflect our judgment based on information at the time of publication. Actual results may differ materially from those discussed in such statements. Among those factors that could cause actual results to differ materially are: the economic trend in Japan, sharp fluctuations in exchange rate and oil prices and extraordinary weather conditions.