# FY2017 Initiatives by the Tokyo Gas Group

Supporting you Always and bettering every day.



Thursday, April 13, 2017 Tokyo Gas Co., Ltd.

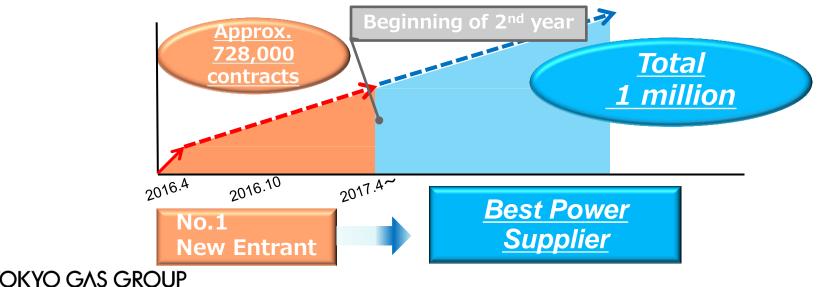
## Introduction

- The Tokyo Gas Group has focused on the main policies adopted for implementation evolving into the total energy business, accelerating global business development, and reconstructing our corporate group - as the "step" phase (FY2015-17) of the Challenge 2020 Vision.
- This year marks year two of this age of unparalleled energy market competition triggered by the full deregulation of the retail electricity market in April of last year. The Tokyo Gas Group intensify efforts to be the group chosen by consumers by offering total energy proposals attaching services to gas, electricity, and liquid gas provision and expanding on the added value we provide to customers.
- In addition to our multifaceted and comprehensive preparations for the full deregulation of gas retail market in April 2017, the Group members are more united than ever in our effort to ensure our service quality in this new age.
- Under our new structure featuring 11 overseas offices, we will further accelerate our overseas business expansion with managing the business risk strictly.
- We have identified 7 business domains that will comprise our Group formation. We will solidify business in order to achieve growth and synergy in each domain. And to respond to the growing digital society, accelerating environmental policies, the permeation of workstyle reform, and other significant changes influencing our business environment, we will strengthen our business foundation by initiating evaluations of full-scale reforms.



## < Year two of an age of unparalleled energy market competition >

- In retail electricity business, we recognize that our customers satisfy with our bundled services, the Total Energy Service Plans, which supply gas, electricity and living related services, as providing value for money, peace of mind, and simplicity and convenience through the Service. As a result, for 1 year from the beginning of the full deregulation our retail electricity business has reached enrollment of <u>approx. 728,000 electricity</u> <u>customers</u> (as of March 31), the <u>No.1 company among new entrants in low-voltage power market.</u>
- In the second year of this age of unparalleled energy market competition, while adding proposals for new services and gas pricing menus as we aim for 1 million total electricity contracts during FY2017. We will work to provides the true customers' satisfaction with services, <u>"Best Power Supplier"</u>, while keep the position of the top of the new entrants in low-voltage power market.
  - Lower-voltage customers as goal for electricity contracts



## < New age of full deregulation of gas retail market >

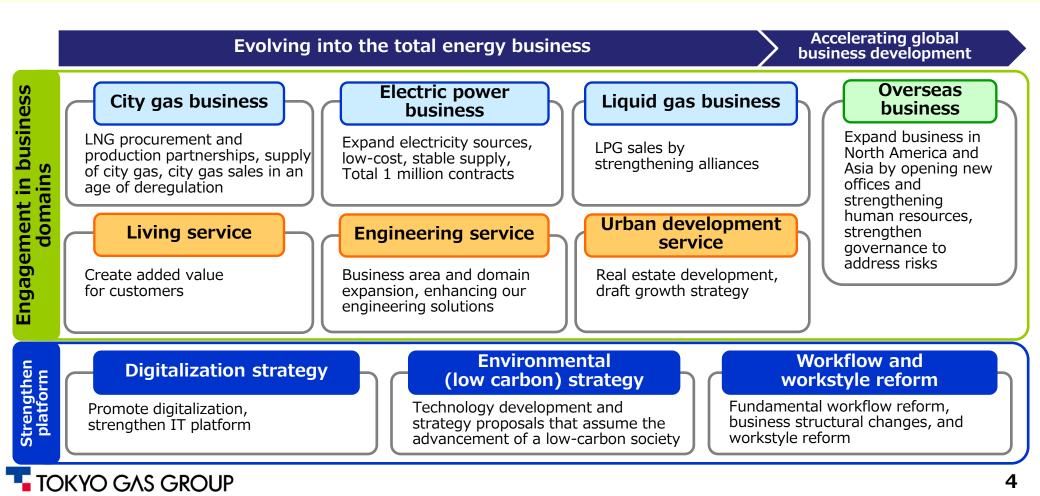
- Thus far, we have advanced preparations towards fulfilling the meaning and purpose of gas system reforms, including 1) stable supply and expansion of gas use, 2) lower gas prices and higher customer satisfaction, and 3) more options of suppliers for customers and enhanced customer safety as we head into an age of full deregulation of gas retail market in April. The smooth launch of relevant systems, including the construction of a switching system and a new call center reception system, will enable us to respond smoothly to customer requests. We make effective and timely responses to the request from new entrants in gas retail market.
- We qualified as a gas retailer in a part of Kanto area\* to supply our city gas to customers in the relevant area. From April 2017, we are proposing the most suitable energy solution to the commercial and industrial (big-lot) customers. To residential customers, we are preparing to provide the plan with gas, electricity and residential services ("Total Energy Service Plan").
  - ※ As of April 1, 2017, regarding the sales for commercial and industrial customers, we qualified as a gas retailer in the sales area of Kitanihon Gas, Tosai Gas and Higashinihon Gas. We will qualify as a gas retailer for residential customer in the area of Tosai Gas and Higashinihon Gas.



### <Major issues and initiatives for the Tokyo Gas Group in FY2017>

We have identified 7 business domains that will comprise our Group formation. We will solidify business in order to achieve growth and synergy in each domain. By generating synergy between each business, we will increase the added value we offer customers.

We will strengthen our business foundation which supports the business domains.



## <Effective operation in resource (LNG) procurement and energy productions (LNG receiving terminals and power plants)>

With the establishment of the Gas Resources & Energy Production Div., we are making the operation effective in resource procurement and energy productions to realize both stable energy supply and competitive resource price.

### □ LNG procurement

- To diversify LNG procurement, we are advancing with the diversification of vendors, the diversification of contract content, and the diversification of our LNG network. We also will engage in LNG terminal operation that corresponds to the diversification of LNG procurement.
- During the second half of FY2017, we are planning to begin procurement from the Cove Point PJ, our first procurement of LNG from the USA, and from the Ichthys PJ in Australia.
- To realize the diversification of our LNG network, we undertake new initiative of LNG trading, including swaps to optimize the transportation costs. We will continue seeking out partnerships with LNG players both domestic and international.
  - "Partnership for Improving Flexibility in LNG Procurement" with Kansai Electric Power Co. (April 2016)
  - Executed "Agreement for Mutual Cooperation" with British company Centrica (November 2016)
  - "Strategic Partnership for LNG Procurement" with Kyushu Electric Power Co. (April 2017)
- In light of the market conditions and trends influencing energy markets, in order to secure our medium- to long-term procurement capabilities, we will evaluate initiatives aimed at executing competitive contracts that enable us to response flexibly to demand and market changes.

### **Expansion of the facilities in Hitachi LNG terminal**

• We are planning to expand the facilities to meet the additional demand in northern Kanto area.





### <Initiatives after reinventing ourselves as a gas pipeline operator>

We will secure transparency, neutrality, and fairness, and partner with gas retailers to ensure customers can continue using gas with peace of mind by striving to ensure safety, maintain a stable supply, and work towards popularization and expansion.

#### □ Initiatives to ensure safety

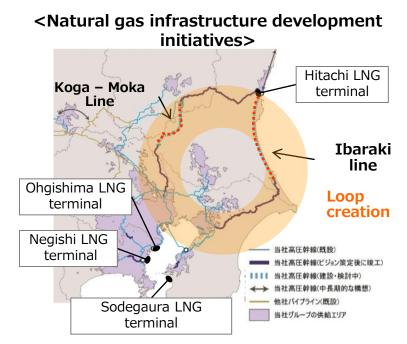
• To provide customers with peace of mind in their continued use of gas after deregulation, we will work to establish smooth partnerships with retailers. Specifically, we are planning to conduct disaster training with retailers to ensure safety in the event of an emergency.

## Initiatives to strengthen gas pipeline network in order to ensure stable supply and drive expansion

• We are advancing construction of the pipeline from Koga to Moka with the goal of completing construction ahead of schedule in the autumn of this year. Construction of the Ibaraki Line, which will strengthen our ability to provide a stable supply through the loop creation of our high pressure pipeline network, will get underway after selecting the final route.

### Initiatives for price reduction

- We will work to optimize construction contracting costs and provide transparency related to reasons for price increases or decreases. We will reevaluate how we advance projects and incorporate innovative technology to achieve cost reductions.
- We also will reduce transportation costs by constructing new pipelines in areas expected to see significant demand.
- We are proceeding these initiatives in cooperation with the ENETrust (TG Group Pipeline construction companies).



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### <Further Growth of Electric Power Business>

The newly established Power Business Div. will work to reach 1 million customer contracts by the procurement and sales optimization to achieve the low-cost, stable procurement of electricity.

### Expand electricity sources

- Construction of Kobelco Power Moka is progressing smoothly and we are proceeding with evaluations for obtaining further additional power sources, including the construction of new power plant.
- To address the expansion of renewable energy sources, we are evaluating additional capital
  partnerships with venture companies in possession of power sources based on renewable energy.
  We are increasing our renewable power sources. In addition to continue our wind status research
  project that is part of the Fukushima Prefecture coastal wind power generation concept, we announced
  the alliance with Shizen Energy Inc. for the photovoltaic power business in February 2017.

### □ New structure

- We established a new Power Marketing & Trading Dept., which will improve the quality to manage our business risk by establishing the relevant organization.
- With the risk management of both procurement and sales, we will enhance our competitiveness to realize the optimization of procurement and sales portfolio in short- and mid-term.



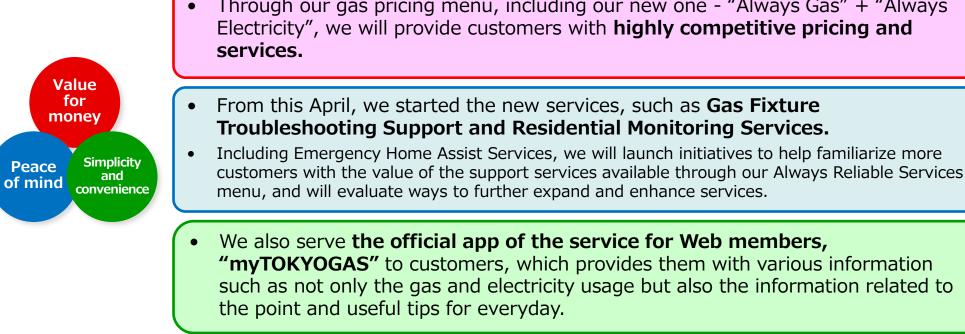
### 2. FY2017 Main Initiatives <Gas Business>, <Electric Power Business>, <Living Service Business>

### < Enhance gas, electricity, and services for residential customers >

We released a new gas pricing menu and services for residential customers. Group members are more united than ever in our effort to be chosen as the comprehensive provider of gas, electricity, and services, and we will continue to present proposal that enriches the lives of our customers.

### **Proposal Total Energy Service Plans that enrich the lives of our residential customers.**

Through Lifeval, Enesta, Enefit, and other opportunities to increase interaction with customers as well as through partnerships with businesses involved in residential services, we will propose plans that are suited to the lifestyles and needs of our customers.



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Through our gas pricing menu, including our new one - "Always Gas" + "Always

### <Living Service Business>

- In addition to energy services on the residential market, we will expand on value and services to enrich customer lives.
- We are shifting to the detailed evaluation phase with the goal of commercializing new value and services.
- As opportunities for interacting with customers, Lifeval, Enesta, and Enefit will unite to improve services • and improve our ability to offer better value and services to customers.
- The newly established Tokyo Gas Living Holdings will establish a Group uniform business promotion • structure in the total facility domain of the Living Service Business.

#### [Total facility] [Life support] Gas and water heating work, appliance sales and maintenance and reform Emergency home assist, house keeping Gas/electricity retail and security communication service, etc. business **Tokyo Gas Living Holdings** Gas Electricity Lifeval / Enesta / Enefit Set sales [Proposal for life] Food-related, my TOKYOGAS, etc. [New value-add proposal]

### □ Living Service Business

## 2. FY2017 Main Initiatives <Gas Business>, <Electric Power Business>, <Energy Service Business>

### <Providing gas, electricity, and services to commercial and industrial customers>

- We will continue working to provide energy solutions that suit customer needs, including to customers outside our gas provision areas, in order to increase the convenience and pleasantness of business conducted by our customers.
- We will propose gas, power, and services by combining gas sales and electricity sales through ENNET and Synergia Power with energy services offered in partnership with Tokyo Gas Engineering Solutions.
- We will advance the urban development that account for environmental, economic factors and disaster prevention, such as the smart energy network project in the Toyosu2-1 district.



Image of the smart energy network project in the Toyosu2-1 district



## 2. FY2017 Main Initiatives <Gas Business>, <Electric Power Business>, <Living Service Business>

### <Gas, electricity, and service provision alliances with wholesale gas suppliers>

Through business alliances for low-voltage power sales with wholesale gas suppliers, we will expand our electricity sales and build a structure that allows partnerships for gas, electricity, and services.

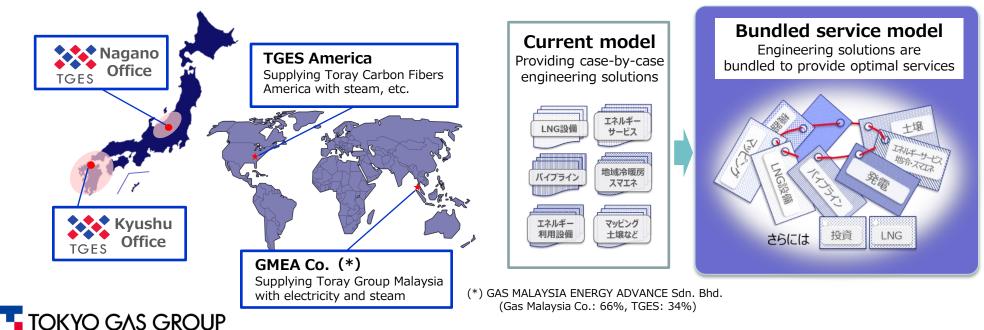
### □ Alliance for low voltage power sales

- The number of low voltage electricity applications to the our partner companies has reached approximately 17,000 as of March 31<sup>st</sup>,2017.
- In high-voltage electricity, we will think about a way to expand partnership in addition to cooperation with ENNET and Synergia Power .
- □ Alliance for evolving into the total energy business, including gas and power sales
- We will strengthen the activities of the Gas Network Consortium 21(Gasnet 21), with which we have deepened our partnership through the various sharing and evaluation of issues, to provide a vast array of the needs of wholesale gas suppliers (such as emergency home assist services).
- We concluded a "Basic Agreement for a Comprehensive Alliance Concerning a General Energy Business" with the LP gas supplier Saisan Co., Ltd. in February 2017. Through this Agreement, we will conduct wholesale provision of city gas to Saisan as part of our efforts to expand total energy business.



#### <Engineering Service Business>

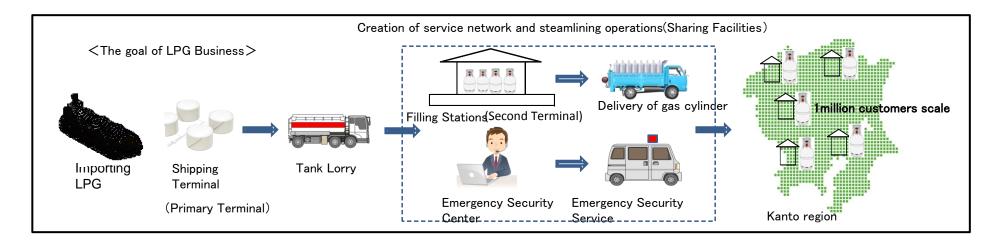
- Tokyo Gas Engineering Solutions (TGES) will take the lead in expanding areas and business domains for a customer-oriented engineering services business.
- In April 2017, we opened new offices in Nagano and Fukuoka. We will partner with the energy suppliers of each region to propose and provide customers with engineering solutions. In addition to expanding business on the Japanese market, we also will expand business overseas with a focus on North America and Asia.
- By bundling the various engineering solutions offered by TGES to provide Bundled Services, we will
  promote a business that proposes and provides one-stop solutions. We also will evaluate
  participating in the large-scale power generation sector as a new business domain.



## 2. FY2017 Main Initiatives <Liquid Gas Business>

## < Liquid gas business initiatives >

- Through alliances with the various parties in LPG Gas Business, we will improve the logistics, safety and other services for customers. In industrial gas business, we will offer our services such as supply of LNG and engineering services to customers as one-stop services.
- In LPG Gas Business, We will aim for 1 million customers by 2020(including 300,000 direct sales customers for the Tokyo Gas Group). (We have already concluded Basic Agreement for a Comprehensive Alliance with Astomos Energy and Saisan.)
- Specifically, in Kanto-region, we will construct the highly efficient logistics networks and the service network which includes highly secure based on our know-how and we will call for participation to LPG companies. And we will think about developing and providing new value added services such as providing electricity and services to the customers who use LPG.





#### <Urban development service (real estate) business>

- In April 2017, we established Tokyo Gas Real Estate Holdings as a general management company for the administration of group inside real estate dealings. As the Group's community development services business, we aim to contribute to community-based energy proposals and disaster resilient community development while expanding profits through utilization and management of real estate.
- Tokyo Gas Real Estate Holdings will accelerate initiatives, including the hiring and training of human resources able to make immediate contributions, in response to expanding business operations and external partnerships.
- In addition to advancing initiatives related to large-scale projects like the JR Tamachi Station East Side development project, we will promote the effective utilization of the Group's small- to medium-sized properties by engaging in concrete initiatives related to high value-added developments as such a low-carbon and disaster resilient community.



#### <Tokyo Gas Real Estate Holdings Organization Chart>



## < Initiatives to accelerate Overseas Business >

- We will utilize the overseas offices and personnel developed thus far to increase and stabilize profits. We will also participate in new projects in Southeast Asia and North America, and evaluate developing business in new areas.
- The newly established Global Business Div. works to enhance the risk manage taking into account our experiences in overseas business in past and to add the value of the business to address diversifying and growing risks resulting from area expansion and accelerated business development.

### Business development in Southeast Asia

- We are accelerating business development with a particular focus on mid and down-stream businesses by the alliances with local big companies (Petronas [Malaysia], Pertamina [Indonesia], etc.) in Southeast Asia, an area expected to see increased demand for natural gas. We also open a new office in Manila to launch activities aimed at capturing new projects in the Philippines.
- [FY2016 major performances]
- ✓ Thailand: Participation in the business operations of the Bang Bo power plant (350,000 kW).
- Vietnam: Participation in project for the procurement and sales of LNG and the construction and operation of an LNG acceptance base in Vietnam by LNG Vietnam Co. (TG Asia Pte. Ltd., Petro Vietnam Gas Joint Stock Corp., Bitexco Group of Copanies). Proceeding with preparations towards start of construction of Thi Vai LNG terminal.

### **D** Business expansion in North America

- North America has vast opportunities for business engagement and we will aim to capture upstream business and new power generation projects.
- [FY2016 major performances]

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- ✓ Participation in shale gas development project in Southern Texas, USA (Eagle Ford)
- ✓ Participation in Empire gas-fired power plant project located in New York, USA.



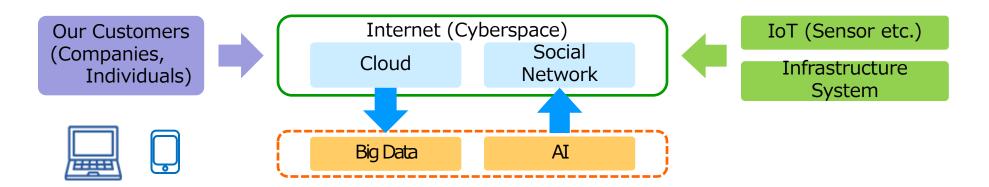
< Empire power plant > (October, 2016)

## < Initiatives to strengthen our platform >

To respond to the growing digital society, accelerating environmental policies, the permeation of workstyle reform, and other significant changes influencing our business environment, we will strengthen our business foundation by initiating evaluations of full-scale reforms

### Digitalization strategy

- To advance digitalization aimed at enhancing services and improving work productivity, we will strengthen our IT platform and begin evaluating new initiatives towards establishing a digital business.
- We will discuss new businesses with the technologies such as IoT and AI including the related alliances.





### Environmental strategies (to address a low-carbon society)

- We are involved in an initiative related to the development of an bunkering (to supply fuel to ships) center with LNG, clean and eco-friendly fuel. Appling the cumulative technology and knowhow cultivated within our Group to provide low-cost, stable LNG supplies will contribute to the popularization and expansion of LNG-fueled ships.
- We will discuss the utilization of renewable energy while improving the technology of energy efficiency (LNG fired thermal plant, Gas Co-generation system) fostered in our gas business.
- We will consider a long-term low-carbon strategy, including researching and evaluating the integration of innovative low-carbon technology such as next-generation fuel cells and hydrogen technology.

### □ Workflow and workstyle reform

- We will further advance the ICT-based work reforms we have initiated such as telecommuting, teleconferencing, and new office layouts.
- To limit long work hours, we will undertake work reforms and business structure reforms in order to improve productivity.
- We will promote the diversity, including the active promotion and development of women and hiring the person in foreign countries to accelerate global business development.

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## Supporting you Always and bettering every day.

