Summary of Press Conference Comments Made by Satoru Katsuno,

FEPC Chairman, on June 16, 2017

I am Satoru Katsuno, Chairman of FEPC.

Today, I would like to talk about three things: "The restart of Kansai Electric Takahama Nuclear Power Station Units 3 and 4", "Global warming countermeasures taken by electricity operators", and "Cybersecurity measures".

1. Restart of Kansai Electric Takahama Nuclear Power Station Units 3 and 4

First, I would like to talk about "the restart Kansai Electric Takahama Nuclear Power Station Units 3 and 4".

As for Takahama Units 3 & 4 where court decided to cancel the provisional disposition, Unit 4 restarted on May 22, and is planned to shift to commercial operation today. Unit 3 also restarted on June 9. I would like to express my sincere gratitude for the understanding and support of Fukui prefecture, Takahama town, and all related people.We hope for Kansai Electric to continue operation with safety as the top priority.

We will be soon be entering the height of summer, but from the perspective of providing a sustainable and stable supply of power, the restart of Takahama Units 3 and 4 is very meaningful.

On May 24, Kansai Electric received permission for design change in reactor installation license. We would like to continue our sincere responses to the inspection for checking conformity so the other plants can restart as early as possible.

2. Global warming countermeasures taken by electricity operators

Since this month is the "Environment Month", I would like to once again introduce the global warming countermeasures taken by electricity operators". Please have a look at the handout.

After the Tohoku Region Pacific Coast Earthquake in 2011, Japan's greenhouse gas emissions have been sharply increasing.
As shown in page 1 of the handout, the emission levels in FY2015 was about 50% greater than in FY2010, before the earthquake despite improvements in CO2 emission coefficient per kWh due to the increase in electricity generated from renewable energy and restart of nuclear power plant.

Please have a look at pages 2 to 4 of the handout. Under these circumstances, twelve companies related to FEPC and new additional electricity operators established the "The Electric Power Council for a Low Carbon Society" in February 2016, and initiatives are underway to accomplish targets set forth in the Action Plan for a Low Carbon Society

As shown in page 5, we will implement the PDCA cycle to achieve our target. So far, we have received follow-ups for the status of the Action Plan for a Low Carbon Society from entities such as the Natural Resources and Energy Working Group of the Industrial Structure Council within the Ministry of Economics, Trade and Industry, and the Third Party Evaluations Committee

within Keidanren. The Council would like to take actions to enhance the PDCA cycle by incorporating feedback received at such conventions to brush up the member operators' plans, and requesting for reports of good practices implemented by the member operators. Since two years have passed since the establishment of the Council, it is necessary to accelerate such initiatives to improve feasibility to achieve the targets.

As another policy to achieve a low carbon society, deliberations for carbon pricing are underway, such as the emissions trading system and the carbon tax. Keeping in mind that addressing global warming is a global issue, various scenarios must be carefully mapped out upon the deliberation, such as: the effect that expensive carbon pricing could bring on global competitiveness; the possibility of carbon leakage, which is a phenomena where emission restriction at one country results in emission increase at other countries due to relocation of production bases, ultimately resulting in an increase of global emission; and the adverse effects it may have to developing technology in the long term.
We believe that the most effective measure is for operators themselves, who have a solid understanding of their business environment, to independently plan and implement cost effective measures by considering business decision factors such as technological trends.

Furthermore, on June 12, discussions for a roadmap to a large scale emission reduction by 2050 recommenced at the Long-term Low-carbon Vision Subcommittee under the Ministry of the Environment. We will actively take part in this discussion, and we believe that the discussion should not just focus on numerical targets, but quantitatively describe the effect on the people's living as much as possible, along with considering the consistency with the energy policies and feasibility of future technological innovations

On June 1 (US time), the United States of America declared its withdrawal from the Paris Agreement. The decision for the US, the second largest contributor to greenhouse gas emissions, to leave the Paris Agreement is very disappointing since it compromises the Paris Agreement's premise, which was the participation of all major contributors to greenhouse gas emissions, possibly bringing the world's global warming countermeasures to a regression. We hope that the US will stay engaged in environmental measures to fulfill their responsibilities as a member of the global community, and we will pay close attention to their future actions.

In Japan, there is absolutely no change in our belief that the steady implementation of the Paris Agreement is of utmost importance, and we shall cooperate with other signatories to actively take part in solving global warming.

As I have mentioned in the beginning, we would like to contribute in reducing greenhouse gas emissions on a global scale by pursuing an optimal energy mix in terms of "S+3E" as a member of the Electric Power Council for a Low Carbon Society to achieve the targets set forth by the Council.

3. Cybersecurity measures

Lastly, I would like to talk about "cybersecurity measures".

As I have mentioned in the press conference in April, twenty-seven entities including electric power companies of the willing and

other organizations such as the Organization for Cross-regional Coordination of Transmission Operators took part to establish the "Electricity ISAC", an organization for sharing and analyzing information related to cybersecurity among electricity operators.

On May 12, the world experienced the "WannaCrypt" cyberattack. By the time news started to spread in Japan on May 13, the Electricity ISAC alerted and shared relevant information with its members.

The members companies of FEPC reacted immediately to this incident by reinforcing security surveillance, notifying employees, and verifying patch programs. As a result, the FEPC member companies have reported no damage to date.

We would like to work towards a stable supply of electricity by having each utilities prepare and reinforce cybersecurity, swiftly sharing and analyzing information through the Electricity ISAC and allowing the members to cooperate closely.

This will conclude my segment of the press conference today. Thank you very much.

END

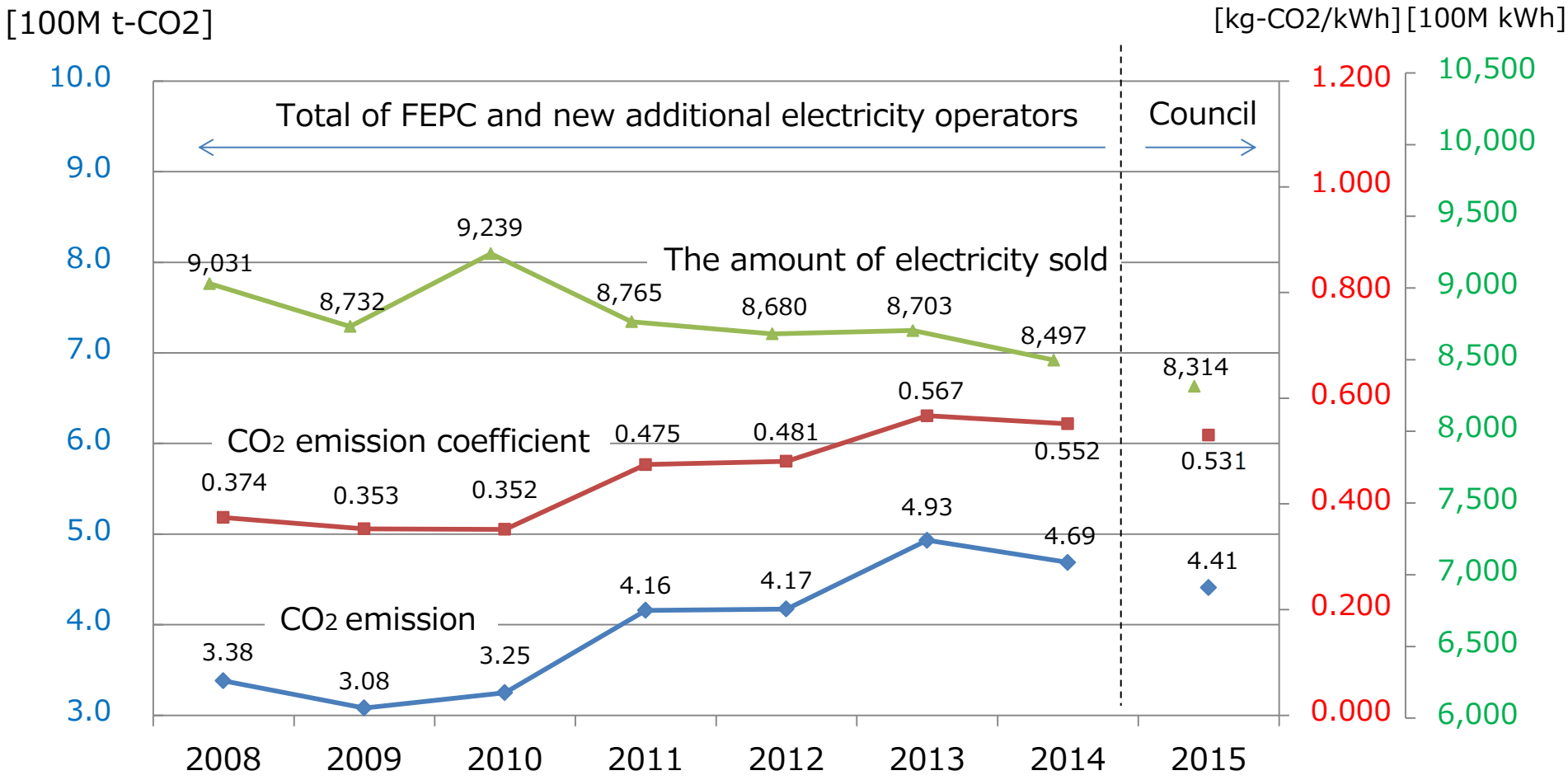
Attachment

Amount of CO_2 Emission from Electricity Operators, etc.

June 16, 2017

The Federation of Electric Power Companies of Japan

1. Historical trend of CO_2 emission and CO_2 emission coefficient



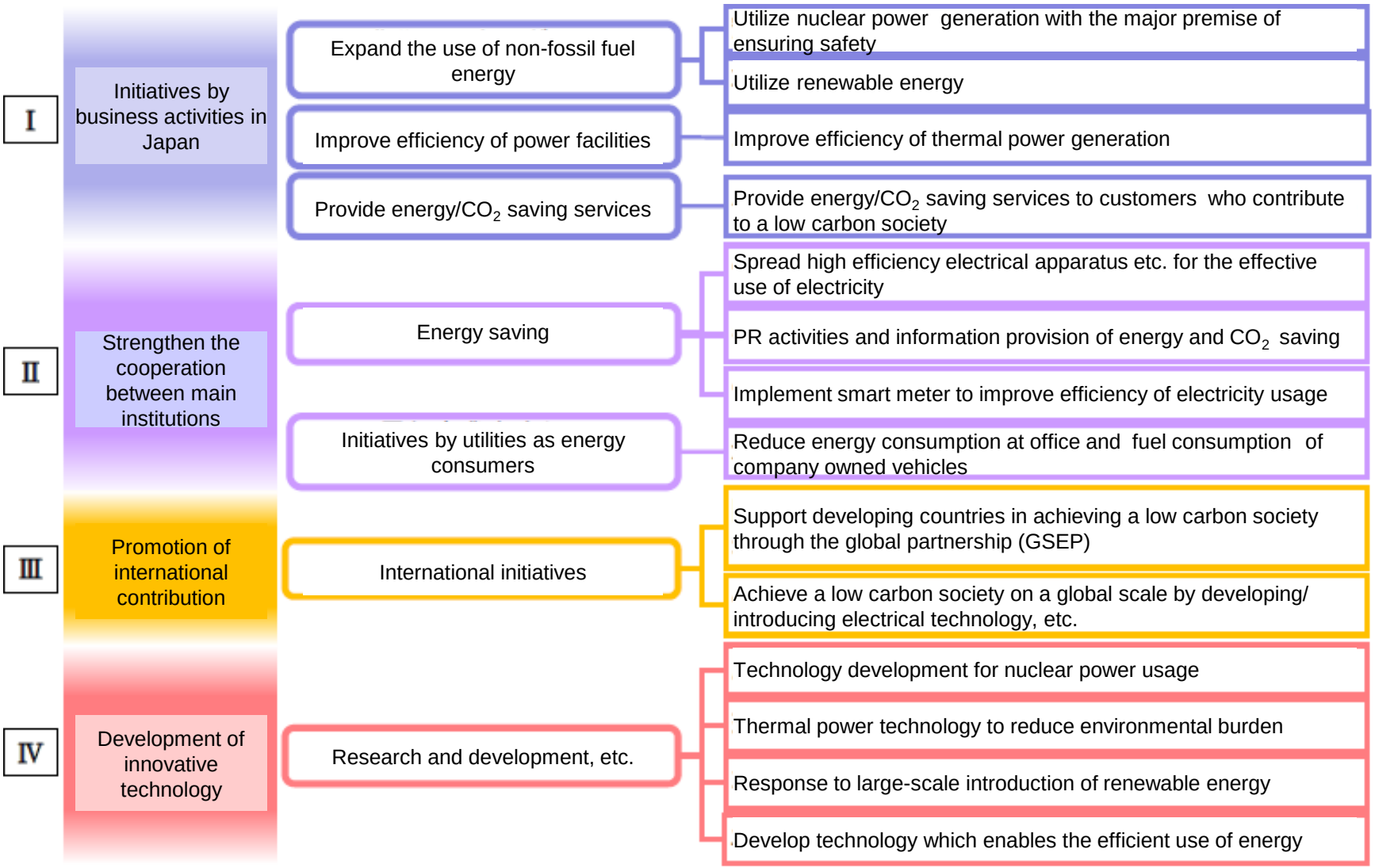
*1 Value in 2015 are confirmed report level (the results of 39 operators who carried out business activities in 2015, out of 42 member operators).

*2 Only 2015 results are available as the Electric Power Council for a Low Carbon. The values before 2014 show the total results of member operators.

2. Overview of the Electric Power Council for a Low Carbon Society

Date of establishment	February 8, 2016
Objective	To encourage and support member operators to take action individually by themselves so as to enable the electricity industry as a whole to take effective global warming countermeasures.
Business	・Confirm the progress of action plans and report/announce the confirmation results ・Review and change action plans ・Disseminate information related to the Council, etc. ・Provide member operators with information ・Other business necessary to achieve the objective
Members	erex Co., Ltd./Idemitsu Green Power Co., Ltd./Itochu Enex Co., Ltd./eneserve Co., Ltd./Ennet Corporation/Energia Solution & Service Co./F-Power Inc./Osaka Gas Co., Ltd./The Okinawa Electric Power Company, Incorporated/Orix Corporation/The Kansai Electric Power Co., Inc./Kanden Energy Solution Co., Inc./Kyushu Electric Power Co., Inc./K-Opticom Corporation/Kenes Energy Service/Summit Energy Corporation/JXTG Nippon Oil & Energy Corporation/Shikoku Electric Power Co., Inc./Sinanen Holdings Co.,Ltd./Showa Shell Sekiyu K. K./Nippon Steel & Sumikin Engineering Co., Ltd./Diamond Power Corporation/The Chugoku Electric Power Co., Inc./Chubu Electric Power Co., Inc./Tess Engineering Co., Ltd./Tepco Customer Service Corporation Limited/Electric Power Development Co.,Ltd./Tokyo Gas Co., Ltd./TEPCO Energy Partner, Inc./TEPCO Power Grid, Inc./TEPCO Fuel & Power, Inc./Tokyo Electric Power Company Holdings, Inc./Tohoku-Electric Power Co., Inc./The Japan Atomic Power Company/Nihon Techno Co., Ltd./Idemitsu Premium Green Power Co., Ltd./Hokuriku Electric Power Company/Hokkaido Electric Power Co., Inc./Marubeni Corporation/Marubeni Power Retail Corporation/Mitsui & Co., Ltd./Mitsuuroko Green Energy Co. Ltd. <42 companies as of June 16, 2017>
Secretariat	The Federation of Electric Power Companies of Japan

3. Action Plan for a low carbon society by the Electric Power Council for a Low Carbon Society



4. CO_2 reduction targets of the Electric Power Council for a Low Carbon Society

- Continue to work towards achieving a low carbon society by promoting measures, etc. from both the supply and demand sides of electricity, pursuing the optimal energy mix as a basis, in terms of "S+3E" that prioritizes safety (S) and aims to simultaneously achieve energy security, economic growth, and environmental conservation (the three E's),

[FY2020 targets]

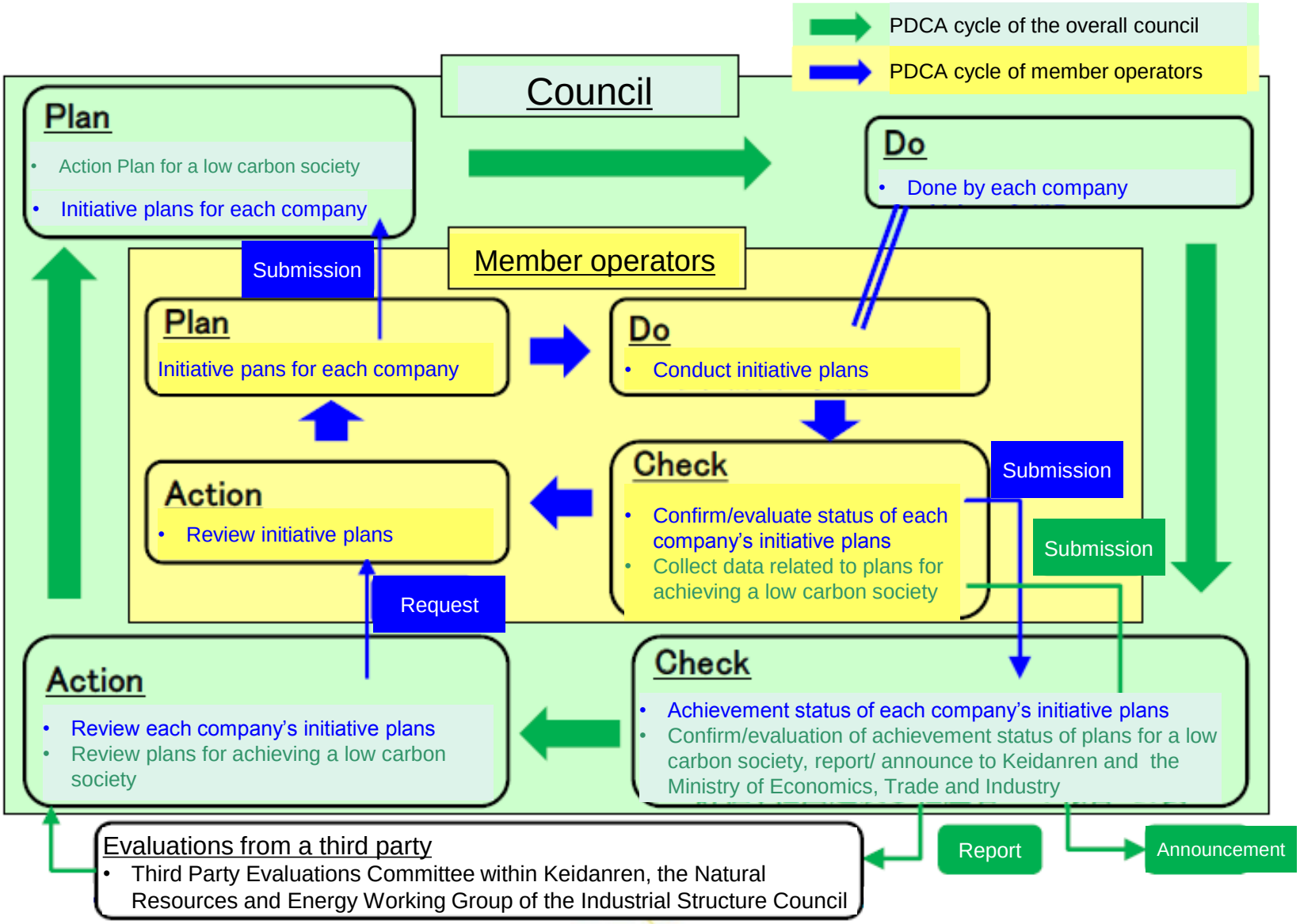
- When building new thermal power stations, etc., expect to reduce a maximum of approx. 7 million t-CO_2 by utilizing the economically best available technology (BAT) according to the plant scale. *1*2

[2030 targets]

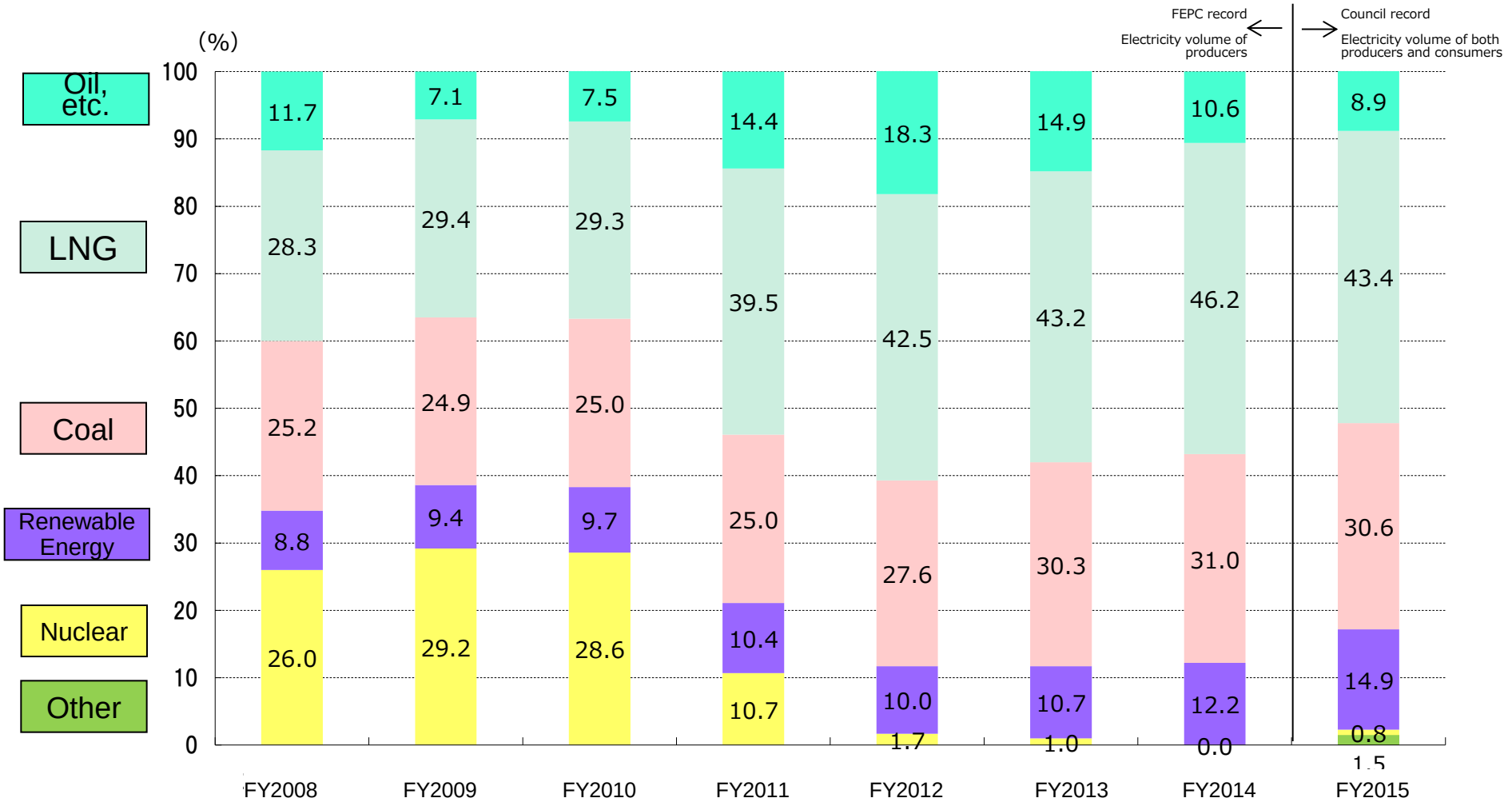
- Based on the government's long term energy supply and demand forecast of FY2030, aim to achieve an overall emission coefficient of about 0.37kg-CO_2/kWh (user end) by FY2030. *1*3
- When building new thermal power stations, etc., expect to reduce a maximum of approx. 11 million t-CO2 by utilizing the economically best available technology (BAT) according to the plant scale. *1*2

*1 When implementing the PDCA cycle, update the "target/action plan" as appropriately depending on the energy/environment policies, domestic and foreign trends of technological innovation, and changes in business environment. *2 The maximum potential for reduction when BAT implementation for major power production after 2013 is compared to conventional technologies.
*3 The energy composition and demand assumed in the "target/action plan" are presented by the government as a long term forecast, and assumes that the forecast will be accomplished by 2030 through the coordination of the government, operators, and citizens.

5. PDCA Cycle of the Electric Power Council for a Low Carbon Society



(Reference 1) Transition of power composition by source

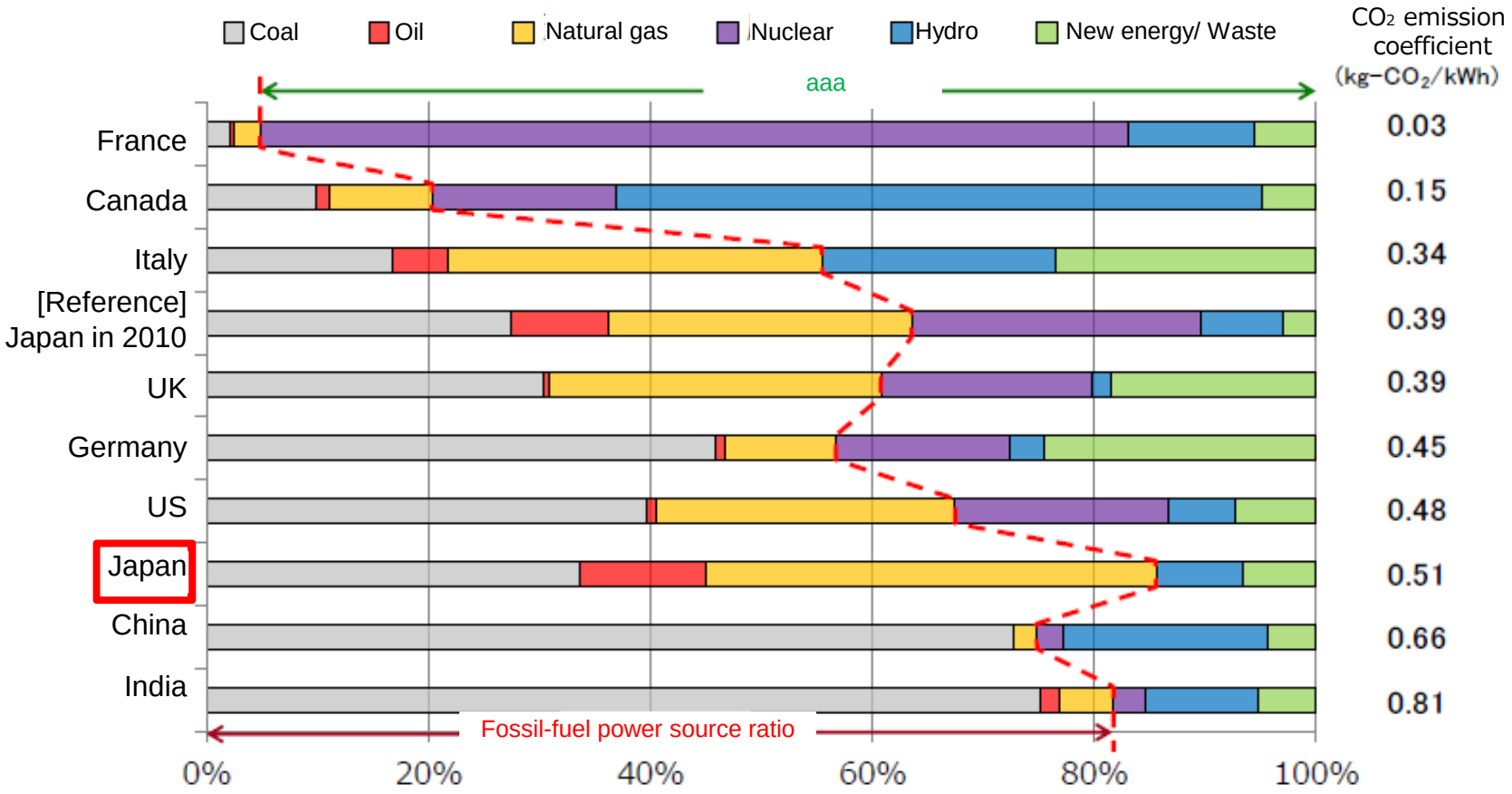


* The results of 2015 show the electricity volume of both producers and consumers for the 39 member operators who carried out business activities, out of 42 member operators of the Electric Power Council for a Low Carbon Society. The results before 2014 show the electricity volume of FEPC, including electricity from other parties, as a reference.

* Renewable Energy includes FIT power source. Oil, etc. includes other gases. Other shows unidentified power sources.

*Values on the graph is composition ratio (%). The sum of composition ratio may not be 100% due to rounding.

(Reference 2) Power composition and CO_2 emission coefficient of major countries

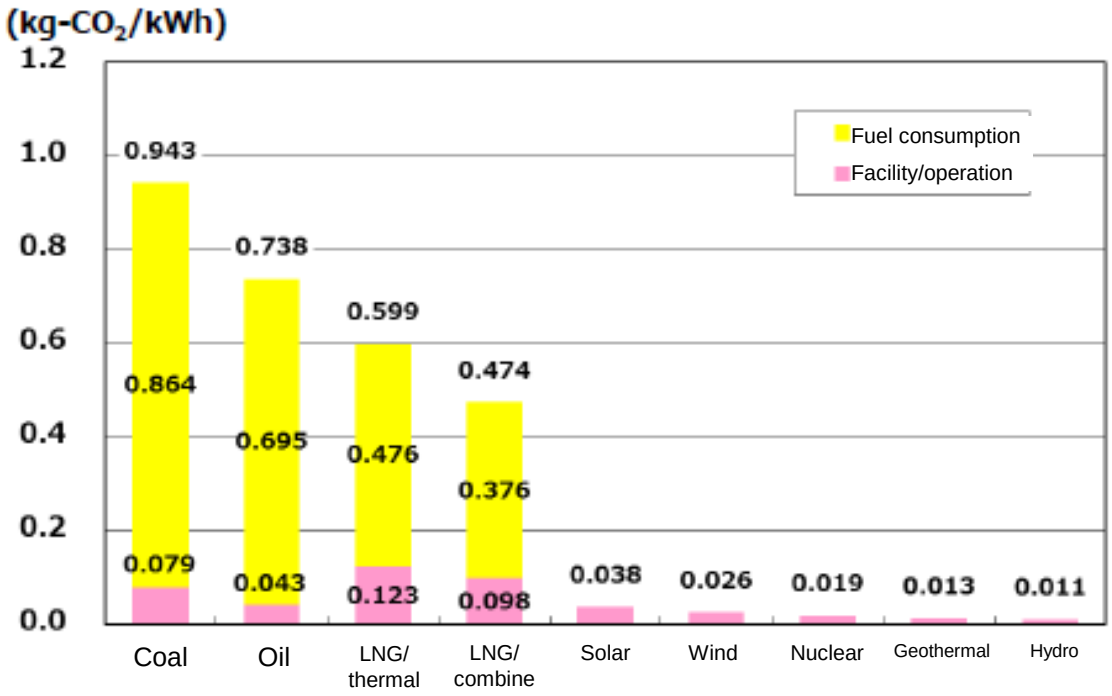


- 2014 values. Includes CHP (combined heat and power) plants. Includes self-generation for Japan.

Source: Council calculation based on World Energy Balances 2016, IEA

(Reference 3) Comparison of life cycle CO_2 in Japan

- Nuclear power generation has a high energy density and reliability for stable power supply. Furthermore, it does not emit CO_2 when generating electricity. Utilizing nuclear power with safety as the top priority is important for global warming countermeasures.



Source: CRIEPI "Life cycle CO2 emission general evaluation for power generation technology in Japan" (July 2016)

- The contribution to CO2 reduction of nuclear power generation (per 1 million kW) is about 3 million t-CO_2 when compared to the average of all power sources.