



## Climate Change 2016 Information Request The Tokyo Electric Power Company Holdings, Inc (TEPCO)

Module: Introduction

Page: Introduction

CC0.1

### Introduction

Please give a general description and introduction to your organization.

Tokyo Electric Power Company, Incorporated (TEPCO) was established in 1951 to supply electric power to the Tokyo metropolitan area, and for more than half a century it has continued to support society and public life with high-quality electric power.

The Tohoku-Chihou-Taiheiyou-Okai Earthquake, which struck on March 11, 2011, precipitated a serious accident at Fukushima Daiichi Nuclear Power Station. TEPCO has seen considerable weakening in its financial standing and income structure due to factors associated with the aforementioned event, such as the recording of substantial expenses and losses and an increase in fuel costs accompanying the suspension of nuclear power generation. In short, TEPCO has been confronted with an unprecedented major crisis.

Addressing the situation, TEPCO, along with the Nuclear Damage Compensation and Decommissioning Facilitation Corporation (NDF), formulated the Comprehensive Special Business Plan, putting together a program of drastic streamlining, management reforms, and other steps. Simultaneously, TEPCO strengthened its financial position through the issuance of preferred stocks totaling ¥1 trillion, with the NDF as allottee.

As a result of the above, including such initiatives as exhaustive cost reductions, in the year ended March 31, 2015, TEPCO was able to achieve profitability for a second consecutive year. Moreover, in anticipation of the full liberalization of the electric power industry, TEPCO has decided to shift to a holding company System in April 2016, with the aim of simultaneously fulfilling its responsibilities to the communities of Fukushima and boosting its competitiveness. Once inaugurated, the holding company will assume full responsibilities regarding the payment of compensation, the decommissioning of the nuclear reactors, and the revitalization of Fukushima. Meanwhile, the TEPCO Group will optimally reallocate its management resources, with each operating subsidiary implementing business strategies best suited to its respective characteristics. In these ways, the TEPCO Group will enhance its overall corporate value.

Please note the provided information is public and is available in our website  
<http://www.tepco.co.jp/en/index-e.html>

CC0.2

### Reporting Year

Please state the start and end date of the year for which you are reporting data.

The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.

We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.

Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed  
Tue 01 Apr 2014 - Tue 31 Mar 2015

CC0.3

### Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country  
Japan

CC0.4

### Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

JPY(¥)

CC0.6

### Modules

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sub-industries, companies in the oil and gas sub-industries, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco industry group should complete supplementary questions in addition to the main questionnaire.

If you are in these sector groupings (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email [respond@cdp.net](mailto:respond@cdp.net).

If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see <https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx>.

Further Information

Module: Management

Page: CC1. Governance

CC1.1

### Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a

### Please identify the position of the individual or name of the committee with this responsibility

The board of directors puts a management judgement about global warming targets of TEPCO group. And the council of environment strategies formulates TEPCO group strategy draft of climate change and monitors the implementation circumstances and promote the group initiatives.

The board of directors : The best decision making body about management of TEPCO group

The council of environment strategies:

\* The managing director vice president (Hiroshi Yamaguchi) is a chairperson, and each president of a subsidiary company, each charge executive of a management plan and a management technical strategy research center and the head of a planning section, a technological integration section and a construction section of engineering are commissioners.

\*The head of an environment section conducts the council and the environment section manages this council as a secretariat.

\* More than once a year basis, but the council is held at any time based on chairperson's summons according to the need.

\* When an important management judgement is necessary for a global warming target, the consideration contents by this council are submitted to the board of directors.

\* To maintain a reporting line and promote a climate change measure, "global warming working group" composed by the manager level and "global warming section" composed by the director and the head of each section level is installed as infrastructure of this council.

\* Hiroshi Yamaguchi is a person in charge who affects environment in general as well as a climate change as an environment charge executive of the whole TEPCO group.

CC1.2

**Do you provide incentives for the management of climate change issues, including the attainment of targets?**

Yes

CC1.2a

**Please provide further details on the incentives provided for the management of climate change issues**

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
All employees	Recognition (non-monetary)	Energy reduction project Energy reduction target Behaviour change related indicator	Energy reduction target(the office building energy consumption basic unit, MJ/m2) is set as the management index. And all employees engage in the initiative. And we promote "Cool Biz and Warm Biz campaign", encouraging all TEPCO group employees to dress casually and help reduce the use of air conditioning in the summer and winter.
Facility managers	Recognition (non-monetary)	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target	The energy saving performances of specific facilities which consume over 1500 kl of crude-oil-equivalent energy is managed strictly for Japanese energy saving law and headquarters promotes original manual(about energy saving) compliance and energy conservation of the whole company.

Further information

Page: CC2. Strategy

CC2.1

**Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities**

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

**Please provide further details on your risk management procedures with regard to climate change risks and opportunities**

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Six-monthly or more frequently	Board or individual/sub-set of the Board or committee appointed by the Board	Risks are assessed world-wide and considered into the future as far as it can be assumed. For example, we have evaluated risks about overseas procurement of generation fuels by the blockade of Strait of Hormuz, which would have impact on CO2 emissions. And we assess various risks concerned our reduction target in 2030.	> 6 years	Climate change risks are assessed and evaluated six-monthly in TEPCO comprehensive risk management and more frequently in each risk management unit. And its deliberations are reflected in each management plans.

CC2.1b

**Please describe how your risk and opportunity identification processes are applied at both company and asset level**

TEPCO practices comprehensive risk management to prevent accidents or disasters.

At company level, the Risk Management Committee, chaired by the president of TEPCO as the chief risk management executive, plays a central role in assessing and evaluating risks related with direct operations and supply chain that could have a particularly serious impact on business. Risks are assessed and evaluated six-monthly in this committee, and its deliberations are reflected in annual management plans.

At asset level, the risk management meeting is set in each risk management unit, and assesses and evaluates their own risks six-monthly or more frequently. Each management unit is required to report its evaluated risks to the Risk Management Committee six-monthly, and its deliberations are reflected in each management plans.

Climate change risks are assessed in this process in consideration of those stemming from economic and climatic conditions, industry deregulation, equipment and operations, and interest rate fluctuation.

CC2.1c

**How do you prioritize the risks and opportunities identified?**

At asset level, each unit identifies the risk scenarios based on its business and evaluates them in influence (in 4 levels; very serious, serious, medium, and small) and frequency (in 4 levels; high, medium, low and unknown). Then, "Risk Map" and "Significant Risk Management Sheet" are created according to the evaluation at each unit, and they are required to report to the Risk Management Committee six-monthly. And the Committee assesses and evaluates them at company level.

CC2.2

**Is climate change integrated into your business strategy?**

Yes

CC2.2a

**Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process**

1) Keeping an eye on GHG reduction target set out by the government and policy measures to achieve the target, TEPCO group first analyzes impact to our business opportunities and risks, especially plan of new power generation and procurement plan of electricity, and then ensures compliance of related regulations and promotes appropriate countermeasures to combat climate change.

2) Paris agreement was adopted in COP21 and further actions are requested to every nation to address extreme weather and rise in global average temperature caused by climate change. Strengthening regulation on emission reduction in energy sector, especially improvement of thermal efficiency for thermal power plant and increase of ratio of procuring electricity generated from non-fossil fuel power generation for electricity retailing, can impact our business activities. Following actions has

been taken and considered:

- i) Adoption of More Advanced Combined Cycle II technology in Kawasaki LNG fired power plant, which has commenced commercial operation in January 2016
- ii) Development of green electricity rate plan, in which low carbon electricity is provided
- 3) One of the most important components of the short term strategy for coming 2-3 years is saving energy and thereby reducing GHG emissions. Needs for equipment for saving energy such as heat pumps will increase and it will bring further business opportunities.
- 4) Taking into account of energy mix and GHG reduction target in 2030 set out by Japanese government in July 2015, i)decrease of electricity demand by deepening energy saving, ii)expansion of non-fossil fuel power generation and iii)ratio of thermal power generation in energy mix are important components in our long-term strategy. From both environmentally friendly and economical point of view, we have built well-balanced portfolio of thermal power generation between Coal fired and LNG fired and promoted adoption of Best Available Technology or BAT to reduce CO2 emission from thermal power plants.
- 5) i) Introduction of advanced technology in thermal power plant

More Advanced Combined Cycle II technology has been introduced in Kawasaki LNG fired power plant. Integrated Gasification Combined Cycle technology is planned to be introduced in two coal fired power plants in Fukushima prefecture.

ii) Development of renewable energy

We have constructed and operated three mega solar power station with total installed capacity of 30,000 MW and one wind power station with total installed capacity of 18,370 MW.

6) Following energy mix and GHG reduction target in FY2030 set out by Japanese government, power industry has established the Electric Power Council for a Low Carbon Society ("ELCS"). It aims to meet the new targets in the Action Plan for the Electricity Business for Achieving a Low-Carbon Society, which includes emission intensity target of 0.37 kg-CO<sub>2</sub>e/kWh (use-end) in FY2030.

TEPCO group decided to join ELCS to promote our own countermeasures on climate change such as introduction of BAT in thermal power plant. Further, we have considered enhancement of our countermeasures on climate change to ensure effective mitigation actions compatible with fair competition under full liberalized energy market.

#### CC2.2c

##### Does your company use an internal price of carbon?

Yes

#### CC2.2d

##### Please provide details and examples of how your company uses an internal price of carbon

i) Carbon tax has been introduced in Japan as a part of the petroleum and coal tax. When we evaluate the price of fossil fuel such as oil, coal and LNG, carbon tax is taken into account.

ii) When procuring electricity generated from thermal power plant, cost for carbon credits to offset CO<sub>2</sub> emission is taken into account in evaluation of tenders in accordance with tender guideline set out by the government.

#### CC2.3

##### Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers  
Trade associations

#### CC2.3a

##### On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support with minor exceptions	Direct communication with policy makers is made in a timely manner. For instance, we have exchange our opinions and made suggestions from our point of view in discussing national emission reduction target, so called INDC, and the Plan for Global Warming Countermeasures, through various channels.	For instance, we have made requests as follows: i) revision of calculation method based on full liberalization from April 2016 and ii) early introduction of plan-by-plan calculation of emission intensity.

#### CC2.3b

##### Are you on the Board of any trade associations or provide funding beyond membership?

Yes

#### CC2.3c

##### Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
The Federation of Electric Power Companies of Japan (FEPC)	Consistent	Making great efforts to establishment of ELCS, FEPC has encouraged members of ELCS to take appropriate actions to reduce CO <sub>2</sub> emission	We have been appointed as a council member of ELCS and actively engaged in a discussion relating its target, actions and regulations in ELCS.
KEIDANREN	Consistent	Keidanren has encouraged each industry to develop action plan for achieving low-carbon society to promote voluntary mitigation actions under each industry's commitment.	We have contributed actively to the constructive discussion in internal meetings on climate change issues to reach consensus in Keidanren.

#### CC2.3f

##### What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Policies on climate change and related issues in government and industry group and its impact on our business activities has been reported to the management by monthly report or in the management meeting, so as to ensure that all of our direct and indirect activities that influence policy are consistent with our overall climate change strategy.

#### Further Information

Page: [CC3. Targets and Initiatives](#)

#### CC3.1

##### Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Intensity target

## CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int1	Scope 1	100%	35%	Metric tonnes CO2e per megawatt hour (MWh)*	2013	0.57	2030	Don't know	The intensity target was set out as industry-wide target in ELCS (not the target that each member of ELCS shall meet), based on energy mix and GHG reduction target in FY2030 set out by Japanese government.

## CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Decrease	35			CO2 emission and intensity is based on energy mix and GHG reduction target in FY2030 set out by Japanese government. *CO2 intensity in electric power sector in FY2030: 360 million t-CO2 / 980.8 TWh =0.37 t-CO2e/MWh (use-end) <<< FY2013's result : 548 million t-CO2 / 966.6 TWh = 0.57 t-CO2e/MWh (use-end)

## CC3.1e

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Int1	6%	8%	To contribute achieving industry-wide target in ELCS, we have been taking actions in our action plan submitted to ELCS. ELCS will monitor and review its members' actions to implement the Plan-Do-Check-Act cycle.

## CC3.2

Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?

Yes

## CC3.2a

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Product	Electricity Suggestion for improving energy use efficiency Reducing CO2 emission factors of the electricity by introducing of the high efficiency power generation equipments and renewable energies. Improving energy use efficiency by the introduction of high-efficient electrical appliances.					

## CC3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

## CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	7	0
Implementation commenced*	3	716000
Implemented*	6	0
Not to be implemented	0	0

## CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Low carbon energy installation	Introduction of Wind Farm consists of 11 wind turbines in Shizuoka prefecture. The maximum output of the Wind Farm is 18,370 kW (1,670kW each).	16000	Scope 1	Voluntary					
Low carbon energy installation	More Advanced Combined Cycle II technology or MACC II has been introduced in Group 2, Unit 3 of Kawasaki LNG fired power plant (710,000 kW). Compared to before implementation, it is expected that thermal efficiency improves by approx. 40% and consumption of fuel and CO2 emission decreases by approx. 30%.	700000	Scope 1	Voluntary	10000000000				

## CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment

Further Information

Page: CC4. Communication

## CC4.1

Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication	Status	Page/Section reference	Attach the document	Comment
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	18	<a href="https://www.cdp.net/sites/2016/17/18517/Climate%20Change%202016/Shared%20Documents/Attachments/CC4.1/CC4.1-1)Annual%20Securities%20Report.pdf">https://www.cdp.net/sites/2016/17/18517/Climate Change 2016/Shared Documents/Attachments/CC4.1/CC4.1-1)Annual Securities Report.pdf</a>	
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	42	<a href="https://www.cdp.net/sites/2016/17/18517/Climate%20Change%202016/Shared%20Documents/Attachments/CC4.1/CC4.1-2)New%20Comprehensive%20Special%20Business%20Plan.pdf">https://www.cdp.net/sites/2016/17/18517/Climate Change 2016/Shared Documents/Attachments/CC4.1/CC4.1-2)New Comprehensive Special Business Plan.pdf</a>	
In voluntary communications	Complete	15	<a href="https://www.cdp.net/sites/2016/17/18517/Climate%20Change%202016/Shared%20Documents/Attachments/CC4.1/CC4.1-3)TEPCO%20Group%20Action%20Plan.pdf">https://www.cdp.net/sites/2016/17/18517/Climate Change 2016/Shared Documents/Attachments/CC4.1/CC4.1-3)TEPCO Group Action Plan.pdf</a>	
In voluntary communications	Complete	TEPCO Illustrated > Environmental Protection Measures > CO2 Emissions, CO2 Emissions Intensity and Electricity Sales	<a href="https://www.cdp.net/sites/2016/17/18517/Climate%20Change%202016/Shared%20Documents/Attachments/CC4.1/CC4.1-4)TEPCO%20Illustrated.pdf">https://www.cdp.net/sites/2016/17/18517/Climate Change 2016/Shared Documents/Attachments/CC4.1/CC4.1-4)TEPCO Illustrated.pdf</a>	
In voluntary communications	Complete	all	<a href="https://www.cdp.net/sites/2016/17/18517/Climate%20Change%202016/Shared%20Documents/Attachments/CC4.1/CC4.1-5)Environmental%20Initiative.pdf">https://www.cdp.net/sites/2016/17/18517/Climate Change 2016/Shared Documents/Attachments/CC4.1/CC4.1-5) Environmental Initiative.pdf</a>	

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

## CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Risks driven by changes in regulation  
 Risks driven by changes in physical climate parameters  
 Risks driven by changes in other climate-related developments

## CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Uncertainty surrounding new regulation	There is a possibility of additional regulation	Increased operational cost	>6 years	Direct	More likely than not	Medium-high	Additional costs for actions to address	Following energy mix and GHG reduction target in FY2030 set out by	Additional cost is zero, since climate strategy team in

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	relating climate change to electric power sector to be introduced by the government to achieve national GHG reduction target in FY2030. It will cause to increase cost of thermal power generation and then bring about negative impact on our business performance and financial position.						climate change may be borne. Difficult to have quantitative estimation.	Japanese government, power industry has established the Electric Power Council for a Low Carbon Society ("ELCS"). It aims to meet the new targets in the Action Plan for the Electricity Business for Achieving a Low-Carbon Society, which includes emission intensity target of 0.37 kg-CO2e/kWh (use-end) in FY2030. We have been appointed as a council member of ELCS and actively engaged in a discussion relating its target, actions and regulations in ELCS. From both environmentally friendly and economical point of view, we have built well-balanced portfolio of thermal power generation between Coal fired and LNG fired and promoted adoption of Best Available Technology or BAT to reduce CO2 emission from thermal power plants such as More Advanced Combined Cycle II technology or MACC II and Integrated Gasification Combined Cycle technology or IGCC. Direct or indirect communication with policy makers are made to reflect our opinions to climate change policies.	environmental office regularly works for both internal and external climate change issues.
Carbon taxes	Increasing carbon taxes in order to meet Japan's GHG reduction target in FY2030 will cause for us to have additional cost and negative impact on our business performance and financial position.	Reduced demand for goods/services	>6 years	Direct	Unlikely	Medium-high	Due to Increasing carbon taxes, additional costs for procurement of fossil fuels may be borne. As a result, the price of electricity may increase and sales decrease. Difficult to have quantitative estimation.	Following energy mix and GHG reduction target in FY2030 set out by Japanese government, power industry has established the Electric Power Council for a Low Carbon Society ("ELCS"). It aims to meet the new targets in the Action Plan for the Electricity Business for Achieving a Low-Carbon Society, which includes emission intensity target of 0.37 kg-CO2e/kWh (use-end) in FY2030. We have been appointed as a council member of ELCS and actively engaged in a discussion relating its target, actions and regulations in ELCS. From both environmentally friendly and economical point of view, We have built well-balanced portfolio of thermal power generation between Coal fired and LNG fired and	Additional cost is zero, since climate strategy team in environmental office regularly works for both internal and external climate change issues.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								promoted adoption of Best Available Technology or BAT to reduce CO2 emission from thermal power plants such as More Advanced Combined Cycle II technology or MACC II and Integrated Gasification Combined Cycle technology or IGCC. Direct or indirect communication with policy makers are made to reflect our opinions to climate change policies.	
Cap and trade schemes	There is a possibility of cap and trade schemes to electric power sector to be introduced by the government to achieve national GHG reduction target in FY2030. It will cause for us to have additional cost and negative impact on our business performance and financial position.	Reduced demand for goods/services	>6 years	Direct	Unlikely	Medium-high	Additional costs associated with such as further actions including procurement of emission allowances may be borne. Difficult to have quantitative estimation.	Following energy mix and GHG reduction target in FY2030 set out by Japanese government, power industry has established the Electric Power Council for a Low Carbon Society ("ELCS"). It aims to meet the new targets in the Action Plan for the Electricity Business for Achieving a Low-Carbon Society, which includes emission intensity target of 0.37 kg-CO2e/kWh (use-end) in FY2030. We have been appointed as a council member of ELCS and actively engaged in a discussion relating its target, actions and regulations in ELCS. From both environmentally friendly and economical point of view, We have built well-balanced portfolio of thermal power generation between Coal fired and LNG fired and promoted adoption of Best Available Technology or BAT to reduce CO2 emission from thermal power plants such as More Advanced Combined Cycle II technology or MACC II and Integrated Gasification Combined Cycle technology or IGCC. Direct or indirect communication with policy makers are made to reflect our opinions to climate change policies.	Additional cost is zero, since climate strategy team in environmental office regularly works for both internal and external climate change issues.

## CC5.1b

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Tropical cyclones (hurricanes and typhoons)	Large natural disasters will cause damages in power plants and network	Increased operational cost	>6 years	Direct	Unlikely	Low-medium	In case of large natural disaster, large scale and long-term blackout may occur and	Following countermeasures against large natural disaster are prepared: i) watertight building of	Additional cost is zero, since disaster prevention measures are regularly taken

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	facilities and then large-scale and long-term blackout may occur. It will bring about negative impact on our business performance and financial position.						additional cost for recovering power plants and network facilities be borne. It will bring about negative impact on our business performance and financial position as well as business operation due to loss of social credibility. Difficult to have quantitative estimation.	major electric power substations such as watertight door and tide gate ii) leveling of installation of electric facilities to avoid being inundated iii) regular company-wide disaster training a) to rapidly collect information on damages of power plants and network facilities, blackout, requests from national and local governments and so on, b) to consider emergency response to recover damaged plants and facilities and c) to consider effective allocation of equipment and personnel iv) participation in disaster training held by national and local government and training for flexibly offering equipment for recovery between utilities.	to maintain a stable supply of electricity.

## CC5.1c

## Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Corporate values, especially TEPCO group's brand newly established, may be damaged in case our countermeasures to CO2 emission reduction stand still, we cannot supply low-carbon electricity and respond to expectations by our stakeholders.	Other: Damage to corporate values	>6 years	Direct	Unlikely	Low-medium	As TEPCO group's CO2 emission accounts for one third of total CO2 emission in electric power industry in Japan, failure of our actions for climate change may have a big impact and it may cause decreasing the corporate value. Difficult to have quantitative estimation.	As a part of public relation, we have disclosed in our website our actions for combating climate change and annual environmental indicators such as CO2 emission and its intensity per kWh. Following energy mix and GHG reduction target in FY2030 set out by Japanese government, power industry has established the Electric Power Council for a Low Carbon Society ("ELCS"). It aims to meet the new targets in the Action Plan for the Electricity Business for Achieving a Low-Carbon Society, which includes emission intensity target of 0.37 kg-CO2e/kWh (use-end) in FY2030. TEPCO group decided to join ELCS to promote our own countermeasures on climate change such as introduction of BAT in thermal power plant (More Advanced Combined Cycle II technology or MACC II and integrated Gasification Combined Cycle technology or IGCC). Further, we have considered enhancement of our countermeasures on climate change to ensure effective mitigation actions compatible with fair competition under full liberalized	Additional cost is zero, since climate strategy team in environmental office regularly works for both internal and external climate change issues.



Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								energy market. We plan to develop green electricity rate plan , in which low carbon electricity is provided.	

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

- Opportunities driven by changes in regulation
- Opportunities driven by changes in physical climate parameters
- Opportunities driven by changes in other climate-related developments

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
General environmental regulations, including planning	Due to introduction of regulations relating climate change, low or no CO2-emission electricity such as renewable, nuclear and LNG fired will become more competitive. It will bring about positive impact on our business performance and financial position.	Increased demand for existing products/services	>6 years	Direct	Likely	Medium-high	In order to achieve energy mix in 2030 set out by Japanese government, in which nuclear account for 22-20%, renewables 22-24%, LNG fired 27%, some policies and regulations would be introduced. Difficult to have quantitative estimation.	From both environmentally friendly and economical point of view, we have built well-balanced portfolio of thermal power generation between Coal fired and LNG fired and promoted adoption of Best Available Technology or BAT to reduce CO2 emission from thermal power plants. Specifically, More Advanced Combined Cycle II technology or MACC II has been introduced in Kawasaki LNG fired power plant and Integrated Gasification Combined Cycle technology or IGCC is planned to be introduced in two coal fired power plants in Fukushima prefecture. Direct or indirect communication with policy makers are made to reflect our opinions to climate change policies.	Additional cost is zero, as actions to introduce BAT and make proposals to policy makers are regularly taken.

CC6.1b

Please describe the inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other physical climate opportunities	When damage to power plants and network facilities is caused by natural disasters, our corporate value may	Wider social benefits	>6 years	Direct	Unlikely	Low-medium	When damage to power plants and network facilities is caused by natural disasters, we can contribute to disaster recovery project	Following countermeasures against large natural disaster are prepared: i) watertight building of major electric power substations such as watertight door and tide gate	Additional cost is zero, since disaster prevention measures are regularly taken to maintain a stable supply of electricity.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	increase due to avoidance of long-term blackout and quick restoration of electricity supply.						by avoidance of long-term blackout and quick restoration of electricity supply in the area affected. As a result, our corporate value as well as value of electricity as energy source will increase. Difficult to have quantitative estimation.	ii) leveling of installation of electric facilities to avoid being inundated iii) regular company-wide disaster training a) to rapidly collect information on damages of power plants and network facilities, blackout, requests from national and local governments and so on, b) to consider emergency response to recover damaged plants and facilities and c) to consider effective allocation of equipment and personnel iv) participation in disaster training held by national and local government and training for flexibly offering equipment for recovery between utilities.	

## CC6.1c

## Please describe the inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behaviour	With introduction of stricter regulation and rise of awareness on climate change, more electricity user may be interested in purchase of low carbon electricity and consulting service for energy saving. It will bring about business opportunities to TEPCO group and positive impact on our financial position. In addition, electrification (switching to electricity from other energy source) is indispensable to achieve long-term climate goal. Development of low carbon power generation will bring new business opportunities to us.	New products/business services	1 to 3 years	Direct	Likely	Medium	In GHG reduction target in FY2030 set out by Japanese government, "residential sector" and "commercial and other sector (office buildings, etc.)" have to reduce as much as 40% of GHG emission. In order to achieve above sectorial target, government will take all measures such as regulation, taxation and subsidies as well as campaign for promoting low carbon products and services. As a result, customers' behavior and preference may change. Difficult to have quantitative estimation.	From both environmentally friendly and economical point of view, we have built well-balanced portfolio of thermal power generation between Coal fired and LNG fired and promoted adoption of Best Available Technology or BAT to reduce CO2 emission from thermal power plants such as More Advanced Combined Cycle II technology or MACC II and Integrated Gasification Combined Cycle technology or IGCC. We also have developed renewable energy such as hydro, solar and wind. In retail side, we will develop green electricity rate plan, in which low carbon electricity is provided, so that we can meet the needs of customers who have preference for low carbon products and services.	Additional cost is zero, since we regularly consider selection of technology in new power plants and development of new rate plan in response to customers' preference and in compliance with relevant laws.

## Further Information

**Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading****Page: CC7. Emissions Methodology****CC7.1****Please provide your base year and base year emissions (Scopes 1 and 2)**

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Mon 01 Apr 2013 - Mon 31 Mar 2014	108132500
Scope 2 (location-based)		
Scope 2 (market-based)	Mon 01 Apr 2013 - Mon 31 Mar 2014	141000

**CC7.2****Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions**

Please select the published methodologies that you use
Act on the Rational Use of Energy
Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superseded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)
The Tokyo Cap-and Trade Program

**CC7.2a****If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions****CC7.3****Please give the source for the global warming potentials you have used**

Gas	Reference
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	IPCC Fourth Assessment Report (AR4 - 100 year)

**CC7.4****Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page**

Fuel/Material/Energy	Emission Factor	Unit	Reference
Crude oil	0.00262	metric tonnes CO2 per liter	Ministerial ordinance by Ministry of the Environment
Diesel/Gas oil	0.00258	metric tonnes CO2 per liter	Ministerial ordinance by Ministry of the Environment
Kerosene	0.00249	metric tonnes CO2 per liter	Ministerial ordinance by Ministry of the Environment
Liquefied Natural Gas (LNG)	2.7	metric tonnes CO2 per metric tonne	Ministerial ordinance by Ministry of the Environment
Liquefied petroleum gas (LPG)	3	metric tonnes CO2 per metric tonne	Ministerial ordinance by Ministry of the Environment
Town gas or city gas	0.00223	metric tonnes CO2 per m3	Ministerial ordinance by Ministry of the Environment
Other: Coal	2.33	metric tonnes CO2 per metric tonne	Ministerial ordinance by Ministry of the Environment
Electricity	0.530	metric tonnes CO2 per MWh	Notification of the Ministry of Environment about emission factor of each electric utility

**Further information****Page: CC8. Emissions Data - (1 Apr 2014 - 31 Mar 2015)****CC8.1****Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory**

Financial control

**CC8.2****Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e**

97221600

**CC8.3****Does your company have any operations in markets providing product or supplier specific data in the form of contractual instruments?**

Yes

**CC8.3a****Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e**

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
	200000	

**CC8.4****Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

Yes

**CC8.4a**

**Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure**

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
London Office	No emissions excluded	Emissions are not relevant	Emissions are not relevant	Since the office is small leased spaces(about 10 employees), the emissions are quite small and it is difficult to confirm the accurate emission data.
Washington Office	No emissions excluded	Emissions are not relevant	Emissions are not relevant	Since the office is small leased spaces(about 10 employees), the emissions are quite small and it is difficult to confirm the accurate emission data.
Beijing Office	No emissions excluded	Emissions are not relevant	Emissions are not relevant	Since the office is small leased spaces(about 10 employees), the emissions are quite small and it is difficult to confirm the accurate emission data.

CC8.5

**Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations**

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	Less than or equal to 2%	Assumptions Data Management	It is difficult to eliminate all the uncertainty in settlement of emissions figures. Mistakes in inputting data, miscalculation, and making the wrong choice on emission factor can be occurred. Also some very small offices can be used assumption data for their emissions.
Scope 2 (location-based)			
Scope 2 (market-based)	Less than or equal to 2%	Assumptions Data Management	It is difficult to eliminate all the uncertainty in settlement of emissions figures. Mistakes in inputting data, miscalculation, and making the wrong choice on emission factor can be occurred. Also some very small offices can be used assumption data for their emissions.

CC8.6

**Please indicate the verification/assurance status that applies to your reported Scope 1 emissions**

No third party verification or assurance – regulatory CEMS required

CC8.6b

**Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)**

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission
Other: GHG Emissions Accounting, Reporting, and Disclosure System (Ministry of the Environment, Japan)	100	Tue 01 Apr 2014 - Tue 31 Mar 2015	<a href="https://www.cdp.net/sites/2016/17/18517/Climate%20Change%202016/Shared%20Documents/Attachments/CC8.6b/CC8.6b-2014省工不法定期報告.pdf">https://www.cdp.net/sites/2016/17/18517/Climate Change 2016/Shared Documents/Attachments/CC8.6b/CC8.6b-2014省工不法定期報告.pdf</a>

CC8.7

**Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures**

Third party verification or assurance process in place

CC8.7a

**Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements**

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Market-based	Annual process	Complete	Reasonable assurance	<a href="https://www.cdp.net/sites/2016/17/18517/Climate%20Change%202016/Shared%20Documents/Attachments/CC8.7a/CC8.7a-外部検証%20報告書.pdf">https://www.cdp.net/sites/2016/17/18517/Climate Change 2016/Shared Documents/Attachments/CC8.7a/CC8.7a-外部検証 報告書.pdf</a>	1	Tokyo cap-and-trade guideline for verification	1

CC8.8

**Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2**

Additional data points verified	Comment
No additional data verified	

CC8.9

**Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

No

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Apr 2014 - 31 Mar 2015)

CC9.1

**Do you have Scope 1 emissions sources in more than one country?**

No

CC9.2

**Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)**By GHG type  
By activity

CC9.2c

**Please break down your total gross global Scope 1 emissions by GHG type**

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	97100000
N2O	57000
HFCs	2600
SF6	62000

CC9.2d

**Please break down your total gross global Scope 1 emissions by activity**

Activity	Scope 1 emissions (metric tonnes CO2e)
Generation of Electricity	97157000
Other	64600

Further Information

**Page: CC10. Scope 2 Emissions Breakdown - (1 Apr 2014 - 31 Mar 2015)**

CC10.1

**Do you have Scope 2 emissions sources in more than one country?**

No

CC10.2

**Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)**

By facility

CC10.2b

**Please break down your total gross global Scope 2 emissions by facility**

Facility	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)
Head office buildings		146000
Office buildings and others		54000

Further Information

**Page: CC11. Energy**

CC11.1

**What percentage of your total operational spend in the reporting year was on energy?**

More than 0% but less than or equal to 5%

CC11.2

**Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year**

Energy type	Energy purchased and consumed (MWh)
Heat	2219
Steam	16091
Cooling	7157

CC11.3

**Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year**

483260834

CC11.3a

**Please complete the table by breaking down the total "Fuel" figure entered above by fuel type**

Fuels	MWh
Crude oil	6279737
Diesel/Gas oil	246603
Natural gas	356523304
Town gas or city gas	32022895
Other: Fuel oil	29723798
Other: petroleum gas	4677466
Other: coal	53787031

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Comment
Off-grid energy consumption from an onsite installation or through a direct line to an off-site generator	496	Off-grid electricity consumption from our solar photovoltaic generation. ※Total installed capacity of solar photovoltaic generation at own building[kw] x 365 days x 24 hours x Japanese average annual facility utilization factor of solar photovoltaic generation (13%, Ministry of Economy, Trade and Industry)

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
7876568	1179334	222371443	9119008	496	

Further information

Page: CC12. Emissions Performance

CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Decreased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	1	Decrease	Increasing volume of purchasing electricity generated from renewable energy sources. $\{5,388,206[\text{MWh}] \times 0.496[\text{t-CO}_2\text{e}/\text{MWh}] - 2,970,666[\text{MWh}] \times 0.522[\text{t-CO}_2\text{e}/\text{MWh}]\} / 112,613,500[\text{t-CO}_2\text{e}] \times 100[\%]$
Divestment			
Acquisitions			
Mergers			
Change in output	10	Decrease	Declining electricity sales by the demand decreases. $\{257,000,000[\text{MWh}] \times 0.496[\text{t-CO}_2\text{e}/\text{MWh}] - 266,700,000[\text{MWh}] \times 0.522[\text{t-CO}_2\text{e}/\text{MWh}]\} / 112,613,500[\text{t-CO}_2\text{e}] \times 100[\%]$
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other			

CC12.1b

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.00001685	metric tonnes CO2e	607800000000	Market-based	11.41	Decrease	The volume of purchasing electricity generated from renewable energy sources increased, and the electricity sales revenue increased by 1.49% compared to the previous fiscal year (FY2014: 6007.8 billion yen, FY2013: 5919.7 billion yen). And total amount of emissions were reduced by 10.1% (FY2014: 101,271,600 tCO2e, FY2013: 112,613,500 tCO2e). As a result, the intensity decreased by 11.41%

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
379	metric tonnes CO2e	Other: GWh	257000	Market-based	7	Decrease	Decreasing intensity is caused by decreased oil-fired thermal power ratio of our power generated. FY2014: $97,421,600[\text{t-CO}_2\text{e}] / 257,000[\text{GWh}] = 379$ FY2013: $108,264,500[\text{t-CO}_2\text{e}] / 266,700[\text{GWh}] = 406$ Note that the figure required by

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
							government is different from the above. In domestic electricity business, generally emission intensity is calculated from using scope 1 to numerator and electricity sales to denominator. And it would be important index for customers when they calculate their emissions from electricity use.

## Further Information

## Page: CC13. Emissions Trading

## CC13.1

## Do you participate in any emissions trading schemes?

Yes

## CC13.1a

## Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership
Tokyo Cap-and-Trade	Thu 01 Apr 2010 - Tue 31 Mar 2015	25035	0	18949	Facilities we own and operate

## CC13.1b

## What is your strategy for complying with the schemes in which you participate or anticipate participating?

Tokyo Cap-and-Trade is only covering scope2 emissions in Tokyo metropolitan area, which is scope1 emissions from power plant is not included. The required offices are fulfilling the obligations by taking both facility and operation measures. TEPCO is making continued efforts to lowering emissions regardless of locations and emission methods. Not only offices in Tokyo but also offices in other areas are hardly working on an energy saving measures and reduction of GHG emissions, and best practices are developed in other offices. Also power plants have been taken heat efficiency measures or other to reduce scope1 emissions.

## CC13.2

## Has your organization originated any project-based carbon credits or purchased any within the reporting period?

Yes

## CC13.2a

## Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits cancelled	Purpose, e.g. compliance
Credit purchase	Wind	Use of Charcoal from Renewable Biomass Plantations as Reducing Agent in Pig Iron Mill in Brazil	CDM (Clean Development Mechanism)	721	721	No	Voluntary Offsetting

## Further Information

## Page: CC14. Scope 3 Emissions

## CC14.1

## Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Not relevant, explanation provided				Assessment has shown that emissions from this source are not quantitatively relevant compared to TEPCO's overall emissions. Therefore, the impact on our business risk is quite small and the priority to evaluate is low to each stakeholder.
Capital goods	Not relevant, explanation provided				Assessment has shown that emissions from this source are not quantitatively relevant compared to TEPCO's overall emissions. Therefore, the impact on our business risk is quite small and the priority to evaluate is low to each stakeholder.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, calculated	9097800	Electricity Sales [MWh] × Emission Factor 0.0354 [tCO2e/MWh]	100%	The emissions are calculated based on the emission factor provided by the database of the Ministry of Environment. The emission factor is considered the process of procurement the power generation fuel and included the factor of waste disposal.
Upstream transportation and distribution	Relevant, calculated	23676	Related fuel amount of consumption [kJ] × Calorific value unit [MJ/l] × Emission	100%	The emissions are required to submit yearly to the government by the Act on the Rational Use of Energy about domestic transportation.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			factors of related fuel [tC/GJ] x 12/44		
Waste generated in operations	Not relevant, explanation provided				The emissions from waste disposal caused by generations are included the emissions from Fuel-and-energy-related activities.
Business travel	Not relevant, explanation provided				Assessment has shown that emissions from this source are not quantitatively relevant compared to TEPCO's overall emissions. Therefore, the impact on our business risk is quite small and the priority to evaluate is low to each stakeholder.
Employee commuting	Not relevant, explanation provided				Assessment has shown that emissions from this source are not quantitatively relevant compared to TEPCO's overall emissions. Therefore, the impact on our business risk is quite small and the priority to evaluate is low to each stakeholder.
Upstream leased assets	Not relevant, explanation provided				Assessment has shown that emissions from this source are not quantitatively relevant compared to TEPCO's overall emissions. Therefore, the impact on our business risk is quite small and the priority to evaluate is low to each stakeholder.
Downstream transportation and distribution	Not relevant, explanation provided				Assessment has shown that emissions from this source are not quantitatively relevant compared to TEPCO's overall emissions. Therefore, the impact on our business risk is quite small and the priority to evaluate is low to each stakeholder.
Processing of sold products	Not relevant, explanation provided				This is considered not applicable to our central products electricity.
Use of sold products	Not relevant, explanation provided				The emissions from use of sold electricity are calculated in our scope 1 emissions.
End of life treatment of sold products	Not relevant, explanation provided				This is considered not applicable to our central products electricity.
Downstream leased assets	Not relevant, explanation provided				Assessment has shown that emissions from this source are not quantitatively relevant compared to TEPCO's overall emissions. Therefore, the impact on our business risk is quite small and the priority to evaluate is low to each stakeholder.
Franchises	Not relevant, explanation provided				We have no franchises.
Investments	Not relevant, explanation provided				Assessment has shown that emissions from this source are not quantitatively relevant compared to TEPCO's overall emissions. Therefore, the impact on our business risk is quite small and the priority to evaluate is low to each stakeholder.
Other (upstream) Other (downstream)					

**CC14.2****Please indicate the verification/assurance status that applies to your reported Scope 3 emissions**

No third party verification or assurance

**CC14.3****Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?**

Yes

**CC14.3a****Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year**

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Fuel- and energy-related activities (not included in Scopes 1 or 2)	Change in output	3.6	Decrease	Decreasing generated electricity caused by decreased electricity sales.
Upstream transportation & distribution	Change in output	13.4	Decrease	Decreasing generated electricity caused by decreased electricity sales.

**CC14.4****Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)**

Yes, our customers

**CC14.4a****Please give details of methods of engagement, your strategy for prioritizing engagement and measures of success**

To promote energy saving and CO2 reduction, we inform our customers of some information like below on our website.

- "Electricity forecast": A prediction and actual achievement value per a perspective of electric power use, the use experience value every 5 minutes (newsletter) and 1 hour per one day are informed.
- "Electric household account book": Know-how and related information of energy saving and the data which are use experience and the charge of every each "home" contract are informed.
- "Business platform": Know-how and related information of energy saving and the data which are use experience and the charge of every each "corporation" of high



voltage receipt contract are informed.

We recognize that the engagement with customers is necessary for our business. Delivering information, which is profitable for customers finances and effective on climate change, is a key component of our relationships and our climate change strategies, and it has the high priority in our sales and marketing division. And customer feedback and impact on our electricity sales are monitored periodically.

As for other partners in the value chain, subsidiary companies and affiliated companies, we share "TEPCO Group Action Plan" which is our high priority business plan including correspondence to climate change. We organize main company (20, several companies) and "TEPCO group environment liaison meeting" to plan for the communication which will be information sharing about legal revisions and mutual introduction of a match of each company. The liaison meetings are holding the environmental educational program for a compliance.

#### Further information

#### Module: Sign Off

#### Page: CC15. Sign Off

#### CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Hiroshi Yamaguchi	Vice President of TEPCO Holdings, Inc	Board/Executive board

#### Further information

#### Module: Electric utilities

#### Page: EU0. Reference Dates

#### EU0.1

Please enter the dates for the periods for which you will be providing data. The years given as column headings in subsequent tables correspond to the "year ending" dates selected below. It is requested that you report emissions for: (i) the current reporting year; (ii) one other year of historical data (i.e. before the current reporting year); and, (iii) one year of forecasted data (beyond 2020 if possible).

Year ending	Date range
2014	Tue 01 Apr 2014 - Tue 31 Mar 2015

#### Further information

#### Page: EU1. Global Totals by Year

#### EU1.1

In each column, please give a total figure for all the countries for which you will be providing data for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emission intensity (metric tonnes CO2e/MWh)
2014	66057	222371	97221600	0.437

#### Further information

#### Page: EU2. Individual Country Profiles - Japan

#### EU2.1

Please select the energy sources/fuels that you use to generate electricity in this country

Coal - hard  
Oil & gas (excluding CCGT)  
CCGT  
Hydro  
Other renewables

#### EU2.1a

#### Coal - hard

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2014	3200			

#### EU2.1c

#### Oil & gas (excluding CCGT)

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2014	23735			

#### EU2.1d

#### CCGT

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2014	16620			

**EU2.1g  
Hydro**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
2014	9857	10500

**EU2.1h  
Other renewables**

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
2014	33	100

**EU2.1j  
Solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

**EU2.1k  
Total thermal including solid biomass**

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2014	43555	211800	97221600	0.459

**EU2.1l  
Total figures for this country**

Please enter total figures for this country for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes in CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2014	66057	222371	97221600	0.437

**Further Information**
**Page: EU3. Renewable Electricity Sourcing Regulations**
**EU3.1**

**In certain countries, e.g. Italy, the UK, the USA, electricity suppliers are required by regulation to incorporate a certain amount of renewable electricity in their energy mix. Is your organization subject to such regulatory requirements?**

No

**Further Information**
**Page: EU4. Renewable Electricity Development**
**EU4.1**

**Please give the contribution of renewable electricity to your organization's EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization) in the current reporting year in either monetary terms or as a percentage**

Please give:	Monetary figure	%	Comment
Renewable electricity's contribution to EBITDA			

**EU4.2**

**Please give the projected contribution of renewable electricity to your organization's EBITDA at a given point in the future in either monetary terms or as a percentage**

Please give:	Monetary figure	%	Year ending	Comment
Renewable electricity's contribution to EBITDA				

**EU4.3**

**Please give the capital expenditure (capex) planned for the development of renewable electricity capacity in monetary terms and as a percentage of total capex planned for power generation in the current capex plan**

Please give:	Monetary figure	%	End year of capex plan	Comment
Capex planned for renewable electricity development				

**Further Information**

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