

FY2018 Annual Report on Energy (Energy White Paper 2019)

Outline

1. Outline of the Energy White Paper

The Energy White Paper overviews the measures on energy that the Government of Japan took in the previous fiscal year, which is to be submitted to the Diet every year pursuant to the Basic Act on Energy Policy.

The Energy White Paper 2019, the 16th report, explains, as a topic in Part I, the progress in Fukushima's reconstruction, and in addition to this, mainly describes a comparison of greenhouse gas emissions in major countries, trends in energy policies in overseas countries, and efforts to cope with recent natural disasters and strengthen resilience. The report presents a collection of data on energy in Part II and streamlined current situations of energy policies in Part III.

2. Highlights of the Energy White Paper 2019

(1) Progress in Fukushima's reconstruction

This chapter explains the progress that Japan made in reconstruction efforts in Fukushima Prefecture since the occurrence of the Great East Japan Earthquake and the accidents at the TEPCO Fukushima Daiichi Nuclear Power Station.

- [i] Situations off-site, such as lifting of evacuation orders and development of the zones designated for reconstruction and recovery.
- [ii] Situations of contaminated water countermeasures, such as reduction of radioactive material concentration in the surrounding sea area through multi-layered countermeasures against contaminated water.
- [iii] Progress in decommissioning, such as successful contact with fuel debris during the inside inspection of Unit 2 and fuel removal from Unit 3.

(2) Global warming countermeasures and energy policy based on the Paris Agreement

This chapter presents streamlined information on greenhouse gas reduction targets in major countries, their efforts and progress therein.

It confirms that advancing the reduction of energy-oriented CO₂ emissions requires low-carbonization of energy supplies (e.g., raising the ratio of non-fossil sources of electricity, enhancing the ratio of electrification and energy transition from coal to gas) and improvement of energy efficiency and that overseas countries advancing well-balanced efforts between these two points have succeeded in advancing their initiatives for achieving the goals for reduction of the emissions.

Moreover, the chapter compares and analyzes per-capita CO2 emissions in OECD countries and explains the fact that as approximately 80% of the total electricity generated in Japan depends on thermal power, with per capita CO2 emissions in Japan below the average value of OECD countries ranked 27th after Germany. It describes that Japan has an advantage in efficient energy consumption on the consumer side, while it has a weakness in the level of low-carbonization on the supplier side and, accordingly, that these suppliers should enhance their efforts for reducing CO2 emissions.

(3) Efforts to cope with recent disasters and strengthen resilience

This chapter streamlines the impact of major disasters that occurred in 2018 (e.g., the heavy rain in Western Japan in July and the Hokkaido Eastern Iburi Earthquake in September) on energy supply and Japan's efforts to achieve recovery of affected infrastructures. In addition, it explains that Japan inspected critical infrastructures involving electricity, gas and other energy resources to see if such infrastructures were able to maintain their functions should they be affected by disasters ("urgent inspection of critical infrastructure"), and it also provides streamlined information on the progress in countermeasures against disasters based on the results found in the inspection.

The chapter also describes that in strengthening resilience, Japan should effectively invest in infrastructures and curb costs required to restore infrastructures, thereby minimizing the total financial burden on society.