

Japan: Government Estimates the Effects of Energy Conservation, Various Energy-Saving Measures to be Implemented¹

New Energy Group

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In late February, the Ministry of Economy, Technology and Industry (METI) announced an estimate of the electricity consumption of households and companies in 2030.

The estimate was presented by the subcommittee on the outlook for the long-term supply and demand for energy, which discusses the optimal future combination of power sources including nuclear power and renewable energies. According to the estimate, energy conservation measures would reduce electricity consumption to 937.3 billion kWh, less than that of 2012 at 968.0 billion kWh. In 2030, the amount of energy consumption reduction would be equivalent to 46 million kL of crude oil compared with the case with no energy conservation measures. This is a reduction of more than 10% of Japan's energy consumption for 2013 of 370 million kL (crude oil-equivalent). The specific energy conservation measures postulated include switching to LED lighting, introducing high energy-saving appliances, and improving the gas mileage of automobiles.

This estimate is based on the discussions at the previous subcommittee meeting (Feb. 13) which stated that, together with the introduction of renewable energies, "thorough energy saving" should be one of the main approaches². In the previous meeting, the Chairman commented that "the issue is the extent to which energy saving and renewable energy expansion can be materialized compared with the time before 3.11", and "our policy is to use the additional capacity obtained by energy saving and renewable energies to lower the ratio of nuclear and fossil fuels."

In parallel, the government is preparing to introduce legislation on energy conservation. On March 24, the Cabinet approved the bill for improving the energy consumption performance of buildings presented by METI and Ministry of Land, Infrastructure, Transport and Tourism to be submitted to the 189th ordinary Diet session currently underway. The bill, if legislated, would require all new non-residential buildings with a gross floor area of 2000 square meters or more to comply with the

¹ This document is a part of the METI commissioned project "International Energy Use Rationalization Measures (survey on the situation of international energy conservation etc.)", and is a think piece based on news reports as well as the views and observations of the Institute of Energy Economics, Japan.

² The agenda included "the outlook for energy demand, and thorough energy conservation", "maximizing the introduction of renewable energies", "improving the efficiency of thermal power", "lowering the dependency on nuclear power", and "heat utilization, cogeneration and hydrogen".

energy conservation standard³. The bill aims for enactment in 2017 at the earliest.

Further, the government is positioning the various energy conservation measures as part of the emergency economic package. In the 2014 supplemental budgets passed in early February, "promotion of energy conservation for houses and buildings" was adopted to help energize the housing market. The measures include:

- Promotion of energy conservation for houses and buildings (93.5 billion yen)
- Reintroduction of the Eco Point System for energy-saving houses⁴ (80.5 billion yen)
- Increasing the interest rate discount for Flat 353, which is applied to houses with superior energy-saving performance and earthquake resistance, to 0.6%⁵ (115 billion yen)
- Assistance for major energy-saving projects and for long-term improvement renovation of existing houses

The government is positioning energy conservation as a major pillar of its energy policy. If future electricity consumption is reduced as a result of thorough energy conservation, the need to build new power stations will be diminished. We must closely monitor how the above estimate will be reflected in future energy policies.

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³ New building and renovation plans that are certified to comply with the reference standard will be subject to a special floor-area ratio, in which the space for energy conservation facilities will be excluded from the total floor space.

⁴ Points worth up to 450,000 yen are granted when building high energy-saving houses or renovating houses into one. The points can be traded for local specialty products and gift tokens. To receive the points, the construction contract must be signed on or after December 27, 2014, and construction must start before the end of March 2016.

⁵ For payments received in February, the minimum interest rate could go down to as low as 0.77% for loans up to 35 years and to 0.5% for those up to 20 years.