

Outline of the RPS System in Japan

1. Basis

Special Measures Law Concerning the Use of New Energy by Electric Utilities
(promulgated 7th June 2002)

2. Aim

To take measures relating to the use of new energy by electricity retailers in order to enhance the stability of energy supply, thereby contributing to environmental conservation and furthering the overall healthy development of the national economy.

3. Types of Energy Covered

- Solar Generation
- Wind Generation
- Biomass Generation
- Medium and Small - Sized Hydro Generation (stations up to 1MW capacity)
- Geothermal Generation

4. Utilization Targets

The Minister of Economy, Trade and Industry establishes annual targets of utilization of electricity from new energy by electric retailers.

The target for 2010 is 12.2 TWh, which would comprise 1.35% of national electricity supply.

(TWh / fiscal year)

	2003	2004	2005	2006	2007	2008	2009	2010
	7.32	7.66	8.00	8.34	8.67	9.27	10.33	12.20

5. Obligations

The Minister for Economy Trade and Industry, in consideration of the usage target, imposes an obligation on electricity retailers to use a certain amount of electricity from new energy.

1) Calculation Method for the Obligation Amount

“Obligation Amount” = “Supply Volume of the Electricity Retailer (for Previous Year)” * “Usage Target Rate ” * “Adjustment Rate”

Where

“Usage Target Rate ” = “National Usage Target (for Corresponding Year)” / “National Volume of Electricity Supply (for Previous Year)”

“Adjustment Rate” = “Rate Accounting for the Situation of Voltage Variation that Necessarily

Accompanies the Installation of New Energy Generation Facilities (Value 1 – 0.9)”

2) Adjustment Method for the Obligation Amount Transitional Measures

As transitional measures, the following adjustment method has been determined in order to provide an adjustment over the seven years following enactment of the law (ie, leading up to the year before 2010) that set practical implementation targets for each retailer based on their actual prior results;

$$\text{“Post Adjustment Obligation Amount”} = \text{“Pre Adjustment Obligation Amount”} / \text{“Usage Target Rate”} \\ * \text{“Adjusted Usage Target Rate”}$$

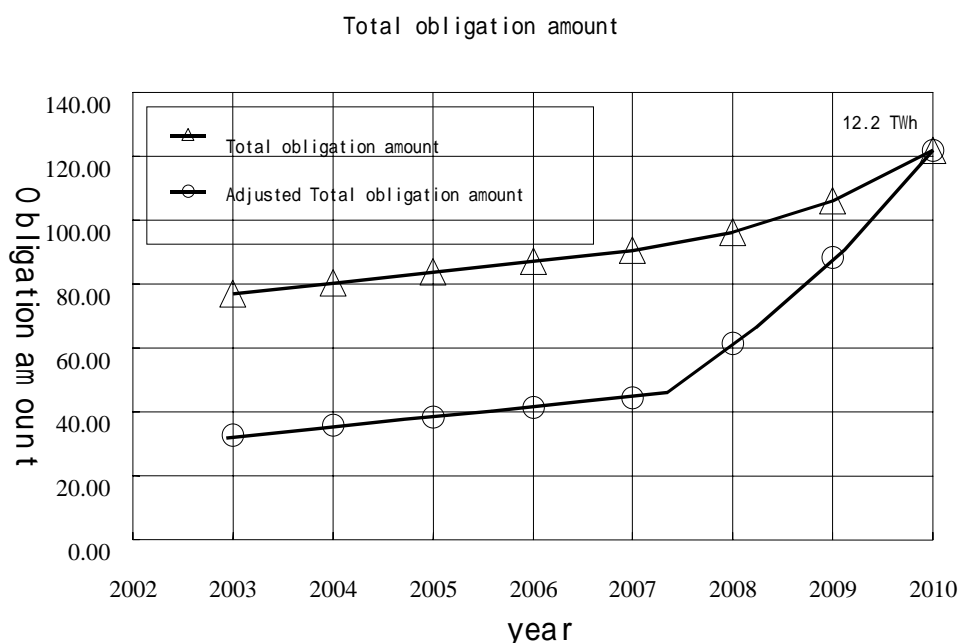
Where

$$\text{“Adjusted Usage Target Rate”} = \text{“Usage Target Rate”} - \{(\text{“Existing Rate of Use of Top-Runner”} - \\ \text{“Own Existing Rate of Use”}) * \text{“Progressive Adjustment Rate”}\}$$

$$\text{“Existing Rate of Use”} = \text{“Volume of New Energy Based Electricity Supply (for the year 2002)”} / \\ \text{“Total Electricity Supply (for the fiscal year 2002)”}$$

The “Progressive Adjustment Rate” can be found in the table below, with the value corresponding to each progressive year

								(Fiscal Year)
2003	2004	2005	2006	2007	2008	2009	2010	
1	1	1	1	1	2/3	1/3	0	



6. Fulfillment of Obligations

(1) Way to Fulfill the Obligations

An obligation bearing electricity retailer may, choose to meet its obligation from the following options whichever method is deemed most appropriate by economic or

other considerations

- i. By generation of electricity oneself
- ii. By purchasing the new energy based electricity from another party
- iii. By purchasing an "Applicable Amount of New Energy Electricity" from another party

* "Applicable Amount of New Energy Electricity"

The amount of electricity recorded in an electronic account as the amount having been generated and supplied by an accredited facility

Procedure Details

- i. Electricity retailers must submit their obligation amount of electricity from new energy to the Minister of Economy Trade and Industry by June 1st of each year.
- ii. Electricity retailers must fulfill their obligation to use a volume of electricity from new energy in excess of the obligation amount.
- iii. Electricity retailers must make a submission by the following June 1st as to the status of the fulfillment of their obligation.

When there is a shortfall of up to 20% of the obligation amount, the shortfall may be carried over to the next period (referred to as 'borrowing').

(2) "Applicable Amount of New Energy Electricity"

- i. The "Applicable Amount of New Energy Electricity" is managed via an electronic account. Parties that may open an account are new energy electricity generators and electricity retailers. In order to acquire an "Applicable Amount of New Energy Electricity", whenever new energy based electricity has been generated, the new electricity generator or purchasing retailer makes a submission. The government accepts the submission and records it in the electronic account as an "Applicable Amount of New Energy Electricity" (this is to take place on a quarterly basis).
- ii. It is then possible to sell the "Applicable Amount of New Energy Electricity" that has been recorded in the account to other generators and retailers.
- iii. "Applicable Amounts of New Energy Electricity" are recorded in units of 1 MWh. An ID is attached for each unit of 1MWh.
- iv. "Applicable Amounts of New Energy Electricity" are valid for a period of 2 years, including the year in which it was generated (referred to as 'banking').

(3) Recommendations / Orders / Penalties

- i. Recommendations, Orders

In cases where the electricity retailer has failed to fulfill their obligation without proper reason, the Minister for Economy Trade and Industry may

issue a recommendation or make an order for specific performance by a set deadline.

The preconditions by which a recommendation is issued is that the obligation amount is unachievable, even when taking into account banking/borrowing and an upper pricing limit (of JPY 11/kWh). Orders are issued in cases where there is no improvement even following the issuing of a recommendation.

ii. Penalties

In cases where an order issued under 'i.' above is violated, a fine not exceeding 1 million yen may be applied.

7. Accreditation of Facilities

Anyone who generates, or tries to generate electricity from new energy may apply to the Minister for Economy, Trade and Industry for accreditation.

(Accreditation Criteria)

a) Generation Equipment

- The equipment must be set up in such a way as to allow accurate measurement of the sold (usable) volume of electricity from new energy generated.

b) Generation Method

- In cases where electricity generation is combined with methods other than recognised new energy sources (such as mixing with heavy oil fuels and such), the generation method must be one where it is possible to accurately monitor / record the proportion of generation originating from new energy.
- The renewability must be ensured (ie, geothermal)

8. Enacting Date

- a) Provisions related to accreditation of facilities came into force on December 6th, 2002
- b) Provisions related to obligations of electricity retailers shall come into force on April 1st, 2003