

Trends Surrounding Renewable Energy

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The percentage of renewable energy that accounts for in the primary energy supply in the world has been on a downward trend from 13.3% in 2003 to 12.7% in 2005. This is because the consumption of fossil fuel in developing countries has exceeded the increase in renewable energy in developed countries. Nevertheless, China has an excellent reputation as the world's No. 1 country in terms of the amount of solar thermal and geothermal energy used. Also, in the field of wind-power generation, which is rapidly increasing, India became No. 5 moving ahead of Denmark, and China became No. 7 in 2006.

On the one hand, EU announced a plan in its proposal for a directive on the promotion of energy from renewable sources to expand renewable energy to 20% of the final consumption by 2020 (it was 8.5% in 2005). The IEA also started implementing agreements for the renewable energy technology development program and has reinforced its promotion policy. In the United States, as the effect of tax breaks of 1.9 cents/kWh, which is called a production tax credit, the annual amount of introducing wind-power generation marked a world record of 5 million kW in 2007. In addition, the United States will organize the cabinet-level Washington International Renewable Energy Conference in Washington D.C. in March of this year. Expectations for renewable energy are now growing more and more in Europe and the United States. In particular, in connection with the numerical target of 20% set by Europe, the most important challenge now is who will bear the costs rather than what to do about the economical and technological problems. It will be necessary for Japan to learn from the process on how they are going to achieve such a target rather than just shrugging it off by saying that the EU targets are unrealistic.

In other areas, movements to expand the utilization of biofuels have recently grown stronger. In the United States, a target was established to cover 20% of the gasoline consumption with biofuels by 2020, and the introduction of biofuels is now mandatory. In Asia, biofuel utilization schemes were introduced in such countries like China, India, Korea, and the Philippines. There

have been strong criticisms from the United Nations and environmental protection groups saying that biofuels might cause socially adverse effects with respect to possible environmental destruction and competition with foods, but the higher crude oil prices will continue to serve as a following wind in favor of biofuels in 2008.

On the other hand, the supply of new energy in Japan was approximately 1.2% of the primary energy supply up to the first half of the 2000s, but in recent years, the percentage has increased to a little over 2% in relation to the target of about 3% in 2010 partly due to the effects of the “Special Measures Law Concerning the Use of New Energy by Electric Utilities” (RPS system). Especially, there has been a remarkable increase in the utilization of waste material or biomass, solar power and wind generation, which are covered by the RPS system. It is not possible to wipe away a feeling, however, that Japan has noticeably lagged behind on an international basis.

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