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**Energy Efficiency and Conservation Policy Outlook and  
Challenges for 2023**  
**~Energy Savings Enhanced in a World Facing the Energy Crisis and  
Implications for Japan~**  
**<Executive Summary>**

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International trends

1. In the face of the energy crisis, the world has enhanced energy efficiency and conservation measures that are available for immediate implementation and feature cost-effective options. In 2023, mainly Europe is expected to continue primarily winter gas- and electricity-saving measures.
2. Europe will promote gas- and electricity-saving measures in 2023, as it did in 2022, to reduce its dependence on Russian gas. The industry sector will take advantage of subsidies for investment in increasing production efficiency. A focus of attention in 2023 is whether such energy-saving and efficiency improvement measures would lead Europe to overcome the short-term crisis to get on a green growth path.
3. The United States and Europe will seek to diffuse electric vehicles and heat pumps to promote carbon neutrality and energy security initiatives. To allow these technologies to be used for optimizing demand in response to supply fluctuations, they will be continuously required to diffuse control technologies and develop relevant institutions.
4. Asian emerging countries will continue to promote energy efficiency and conservation measures in 2023 in response to energy price spikes.

Foreign policy trends

5. Germany, which depended on Russia for 55% of natural gas imports in 2020, is plagued with the serious impacts of a decline in gas supply from Russia and subsequent energy price spikes, implementing industrial production

adjustments. To overcome the energy crisis and realize realistic energy efficiency improvements, its government will spend 16.9 billion euros on insulation enhancement measures for housing and buildings and 864 million euros on industrial efficiency enhancement in 2023.

6. Under the Inflation Reduction Act enacted in August 2022, the United States will invest \$60 billion or some 16% of \$369 billion in clean energy spending on energy efficiency and conservation measures over 10 years. The investment will include \$24 billion for tax credits, rebates and other energy efficiency and conservation measures for housing, indicating that hopes are placed on the enhancement of such measures. The United States will also consider promoting energy efficiency and conservation systems such as grid-interactive efficient buildings that will integrate sensors and other equipment into control systems to optimize demand in response to supply fluctuations.
7. In Asia, China and the Association of Southeast Asian Nations will continuously enhance energy efficiency and conservation measures toward medium-term CO<sub>2</sub> emission reduction goals. Thailand and other countries that depend heavily on energy imports enhanced electricity savings in 2022 and will continue to do so in 2023.

#### Japanese policy trends

8. Japan is required to accelerate energy efficiency and conservation measures to achieve its FY2030 energy savings goal of 62 million kiloliters of oil equivalent (from FY2013). Under the second supplementary budget for FY2022, the government plans to provide 160 billion yen in energy savings subsidies for manufacturers in the year and more in the following years. It will use an action for bearing deficits in the Treasury to seamlessly provide such subsidies for multiple years. If the FY2022 pace is maintained, the government may provide some 500 billion yen in such subsidies over three years.
9. In April 2023, the revised Act on Rationalizing Energy Use will take effect. The latest revision subjects the use of non-fossil energy sources to energy efficiency enhancement. In addition, upward and downward demand responses to optimize demand in response to supply fluctuations will be launched in FY2023 under the act.

#### Foreign cases' implications for Japan

10. Over the short term, Japan has room to improve the provision of information on energy conservation promotion to consumers to help encourage their behavioral

transformation, as indicated by German and other cases. A list of information on energy savings by measure, energy savings diagnosis and subsidization measures needs to be provided.

11. Foreign countries have enhanced energy-efficient equipment investment promotion as a top priority economic measure for long-term green growth. It is important for the government to make a commitment to provide and diffuse medium to long-term support for private sector investment in energy savings and green transformation to enhance Japanese manufacturers' international competitiveness.
12. Given the long service life of housing buildings, Japan is urgently required to take measures for the existing housing building stock to achieve carbon neutrality for housing buildings by 2050. A comprehensive approach is indispensable, covering energy efficiency labeling, the renovation of existing stock with low energy efficiency and robust subsidization.
13. In 2023, Japan will be required more than ever to provide Asia and other emerging countries with financial support for investment in energy-saving equipment, energy management know-how and cooperation in developing energy efficiency and conservation policies.

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