



**Recommendations  
of the  
EU-Japan Business Round Table  
to the Leaders of the European Union and Japan**

Tokyo, 3 & 4 April 2012

**Working Party E  
Energy, Environment and Sustainable Development**

**Working Party Leaders:**

Mr. Rémy AUTEBERT  
Senior Executive Vice-President  
AREVA;  
President  
AREVA Japan Co., Ltd.

Mr. Hajime SASAKI  
Executive Advisor  
NEC Corporation

## List of Abbreviations

<b>Abbreviation</b>	<b>Meaning</b>
CCS	Carbon Capture and Sequestration
EIB	European Investment Bank
EBRD	European Bank for Reconstruction and Development
EITI	Extractive Industries Transparency Initiative
ETS	Emissions Trading System
EU	European Union
EV	Electric Vehicle
GHG	Greenhouse Gas
IAEA	International Atomic Energy Agency
ISDR	International Strategy for Disaster Reduction
NEA	Nuclear Energy Agency
NGO	Non-Governmental Organization
OECD	Organization for Economic Co-operation and Development
PHV	Plug-in Hybrid Vehicle
UN-ECE	United Nations Economic Commission for Europe
WP	Working Party

## Recommendations from Both European and Japanese Industries

### Natural Disasters and Safety Measures

#### **WP-E / # 01 / EJ to EJ Identification and prevention measures for natural risks**

The EU and Japan should put in place appropriate mechanisms to identify the potential risks of natural disasters and the probability of their occurrence, and objectively verify their impact.

#### **WP-E / # 02 / EJ to EJ Facilitating international support in case of disaster**

International support is indispensable in times of a major natural disaster. The necessary measures need to be adopted to facilitate the swift acceptance of support from overseas.

#### **WP-E / # 03 / EJ to EJ Strengthening international collaboration for “Post crisis” management**

The EU and Japan should improve the sharing of know how and expertise in specific fields for “post crisis” management. Such joint efforts will significantly speed up the recovery of the concerned population and area.

#### *< Background >*

*Natural disasters inflict crippling social, economic, and environmental damage. The Great East Japan Earthquake of March 11, 2011 and the accompanying tsunami caused great damage to the Fukushima nuclear plant. The extent of damage caused by the earthquake and tsunami, as well as the situation at the crippled nuclear power plant, triggers the need for know how and expertise in specific fields for “post crisis” management . We urge the Japanese government to welcome all the entities which could help to swiftly implement appropriate solutions.*

### **Alternative and Renewable Energies**

#### **WP-E / # 04 / EJ to EJ: Enhancing high-level EU-Japan dialogue on energy**

The EU and Japan should enhance their dialogue on energy policy, including the set-up of a dedicated high-level dialogue on nuclear energy.



**WP-E / # 05 / EJ to EJ Leadership role to establish world safety standards**

The EU and Japan should take a proactive, leading role in supporting the establishment of world safety standards for nuclear power plants through the IAEA and more generally promote international cooperation on nuclear energy.

**WP-E / # 06 / EJ to EJ Nurturing skilled independent nuclear safety authority**

Japan and EU member countries should maintain a highly skilled nuclear safety authority in each country and ensure its independence.

**WP-E / # 07 / EJ to EJ Cooperation on renewable energy development**

Japan and the EU should cooperate on the development of renewable energies, such as wind and photovoltaic power generation, and on other low-carbon technologies such as carbon capture and sequestration (CSS).

**WP-E / # 08 / EJ to EJ Promoting reciprocal access to R&D facilities**

The EU and Japan should support joint R&D activities or mutual access to unique, capital intensive R&D facilities located in either the EU or Japan.

**WP-E / # 09 / EJ to EJ Sharing best practices for safety and regulation with emerging nuclear power countries**

The EU and Japan should position nuclear power as an alternative energy and provide assistance to each other and to other countries, giving priority to sharing best practices in the fields of regulation and safety. The EU and Japan need to effectively support emerging nuclear power countries through a combination of bilateral, regional, and cooperative activities through international organisations.

**WP-E / # 10 / EJ to EJ Promoting involvement of international institutions to finance capacity-building actions nuclear safety and more generally nuclear investment in the best conditions of safety and security**

To facilitate nuclear investment and achieve a high level of safety, Japan and the EU should encourage the World Bank, the European Bank for Reconstruction and Development (EBRD), and the European Investment Bank (EIB) to consider loan and loan guaranties on nuclear investments and to allocate funds for, and to promote the establishment of, dedicated nuclear safety programmes.

**WP-E / # 11 / EJ to EJ Ensuring fair competition in exports**

The EU and Japan need to create equally competitive fields for export industries, including fulfilment of world safety standards, and strictly adhere to the OECD's Arrangement to Officially Support Export Credits. The EU and Japan should request other countries to make every effort to also adhere to these provisions.

**WP-E / # 12 / EJ to EJ Fostering international harmonization for EV safety and charging infrastructure**

The EU and Japan should work together in UN-ECE WP 29 and others to develop internationally harmonized requirements for the safety and type approval of electrically charged vehicles and common standards for accessing the battery-charging infrastructure.

**WP-E / # 13 / EJ to EJ Cooperating on pre-commercial development of batteries**

The EU and Japan should seek opportunities for partnerships between governments and research institutes to develop pre-competitive technologies for next-generation batteries (e.g., for lowering cost, improving battery life, enhancing safety, and raising energy density).

**WP-E / # 14 / EJ to EJ Sharing best practices for reuse and recycling of batteries**

The EU and Japan should share best practices with respect to the reuse and recycling of rechargeable batteries to enhance their secondary use.

**WP-E / # 15 / EJ to EJ Further promoting demo projects of smart cities and smart grids**

The EU and Japan should further promote demonstration experiments of smart cities and smart grids with respect to rechargeable batteries and related products and should provide open access to allow each other's industry to participate in such experiments.

*< Background >*

*As an alternative energy with a stable energy supply, excellent economic potential, and zero CO<sub>2</sub> emissions nuclear energy is being reassessed by nations around the world. The serious accident at Fukushima's nuclear power plant, following the dramatic tsunami that struck Japan on 11 March 2011 also triggered a re-*



*assessment of the safety measures and emergency response systems of nuclear power by all nations using or contemplating the use of nuclear energy.*

*Rising Expectations for Nuclear Energy calls for a Strengthened Safety Framework*

*According to the Nuclear Energy Agency of the OECD (OECD-NEA), nuclear power accounted for 14% of global electricity production in 2009. This figure is expected to rise to 24% by 2050. As of January 2010, the International Atomic Energy Agency (IAEA) estimated that 437 nuclear power reactors were in operation worldwide, while a total of 56 reactors were under construction.*

*In the majority of the countries worldwide, there is still a growing interest in nuclear power generation to prevent dependence on fossil fuels, and a continuous stream of construction projects for nuclear power plants is underway. However, nuclear energy requires the highest safety standards. A lot has been done for several years at the national level, at the EU level, and at the international level (IAEA, Convention on Nuclear Safety,...). The industry has significantly improved the safety of its current reactor design. Now, the accident at Fukushima, caused by an extreme situation, demonstrates that safety must be continuously improved. As nuclear power will remain an attractive energy source for a large number of countries in the world (contribution to energy security and a low-carbon society), it is even more important to define world safety standards. The EU and Japan must play an active role in promoting and defining such standards.*

*While enhancing safety, it will be necessary to deal with the ageing of existing plants, improve facility utilization rates, and properly manage the nuclear fuel cycle (e.g., the management of used nuclear fuel). It will be essential to understand the mechanism of degradation of machinery and equipment as well as to conduct maintenance of ageing plants to maintain and restore their functions and performance. Therefore, the EU and Japan must promote, through international discussions like those held by the OECD-NEA, the exchange of information related to the technological assessment of ageing plants and to techniques associated with the appropriate maintenance of existing plants. As for the management of used fuel, the recovery and recycling of valuable materials remaining in used nuclear fuel will lead to the effective use of resources and reductions in radioactive waste.*

*Rising Expectations for Rechargeable Batteries*

*Both the EU and Japan are developing next-generation lithium-ion rechargeable batteries. The rechargeable battery is a potential key component in the development of smart grids worldwide, such as the "Smart City Project" in Japan, as well as a groundbreaking advanced application technology contributing to the promotion of renewable energy.*

*When used in a smart grid, rechargeable batteries can be placed at stations for large-scale photovoltaic or wind-power generation. They can also be installed in commercial districts and large-scale apartment housing complexes to store off-peak electricity.*



*Rechargeable batteries are used in the electric and plug-in hybrid vehicles being developed and promoted by Japanese and European car manufacturers. European and Japanese industry is actively seeking to improve the performance and cost of next-generation vehicle batteries to enable the more widespread use of EVs and PHVs.*

*The commercialization of next-generation electrically charged vehicles, including fuel-cell vehicles, will contribute to the conservation of energy, as well as a reduction in CO<sub>2</sub> emissions. To facilitate their market acceptance, the EU and Japan should cooperate on developing internationally harmonized requirements for the type approval and safety of electrically charged vehicles and common standards for accessing the battery-charging infrastructure. The objective should be to ensure that electric vehicles can be charged everywhere, at all times.*

### **Global-Warming Issues**

#### **WP-E/ # 16 / EJ to EJ Establishing in the near future a new, fair, and effective international framework**

The EU and Japan should promote a post-Kyoto framework that engages all major emitters of greenhouse gases to take a fair share of the burden of global CO<sub>2</sub> emission stabilization and reduction.

#### **WP-E/ # 17 / EJ to EJ Setting CO<sub>2</sub> emission targets in a fair and transparent way**

The EU and Japan, when setting national targets, should take into account their international fairness, feasibility, and social impact on citizens. The setting of such targets should be done with a high level of transparency and in consultation with stakeholders.

#### **WP-E/ # 18 / EJ to EJ Facilitating transfers of green technologies**

The EU and Japan should assist emerging economies in developing the necessary human resources and infrastructure so that they can smoothly absorb advanced technologies. To facilitate the transfer of technologies on a commercial basis, the EU and Japan should support the recipient countries in putting in place an appropriate regulatory framework and enforcement tools to ensure the protection of intellectual property rights.



**WP-E/ # 19 / EJ to EJ Cooperation on long-term innovative R&D projects to reduce GHG emissions**

The EU and Japan should cooperate on joint R&D efforts by industry, academia, and government to develop innovative technologies to reduce greenhouse gas emissions. They should also allow access by their industries to their domestic pre-competitive, government-funded research projects because highly innovative technologies require lengthy timelines and very large budgets for basic research and development.

*<Background>*

*There is an urgent need to reduce emissions of greenhouse gases to combat climate change. It is essential to establish a new, fair, and effective international framework with the participation of all major emitters. Designing such an international framework and setting targets at the national level must be done with due consideration for their short and mid-term economic impact, and take into account the opportunities and constraints of the global economy.*

*Technology is essential to combat climate change while also achieving economic growth. Widespread use of existing technologies on a global scale will enable a major reduction in GHG emissions. In addition, innovative and advanced technologies are absolutely necessary. Japanese and European businesses are fully engaged in such endeavours through the improvement and promotion of existing technologies as well as research and development into new technologies and their market introduction.*

**Developing Energy Efficiency and Energy Savings**

**WP-E/ # 20 / EJ to EJ Continuously improving incentives and regulations to promote the adoption of energy-efficient technologies and processes**

The EU and Japan should continue to refine their regulations and incentives to promote the efficient use of energy (energy efficiency as well as energy savings). Setting mandatory principles for standards for building and house insulation plays a major role in reducing energy consumption and dependency and in achieving a significant reduction in CO<sub>2</sub> emissions. Japan and the EU should also share best practices to implement energy efficiency regulations, Innovation processes, trainings, experimental programmes of construction and renovation regarding products and services.

*< Background >*

*In the current context of economic crisis and increase of primary energy prices, energy efficiency and energy savings measures are the solution. An efficient use of energy is necessary for better fighting global warming, for reducing energy demand and consumption, energy dependency and for eliminating energy wastage. There is an important potential for reducing consumption in energy-intensive sectors such as manufacturing and transport, and even more significantly in the building sector.*



*According to the International Energy Agency, residential, commercial and public buildings account for 30 to 40% of the world's energy consumption (and in each country too) and for 25 to 35% of the current world's CO2 emissions. Huge energy efficiency improvements can be expected in this sector if authorities take appropriate measures, such as adopting high level and binding standards, implementing building renovation programmes, coherent financing strategy for promoting energy efficiency, setting binding targets, ensuring compliance of energy efficiency related legislation, promoting training programmes and information regarding energy efficiency initiatives.*

### **Securing Supply of Raw Materials**

#### **WP-E / # 21 / EJ to EJ Promoting adhesion and enforcement of EITI**

The EU and Japan should work closely with other governments, industrial bodies, and NGOs to enable resource-producing countries to fulfil the EITI's "Principles and Criteria" and to advance from candidate to compliant EITI countries.

#### **WP-E / # 22 / EJ to EJ Promoting action to minimize commodity price volatility**

Japan and the EU should strive to reduce excessive price volatility in commodity markets and should accordingly identify common actions to take in international fora.

#### **WP-E / # 23 / EJ to EJ Supporting R&D for recycling and material substitution**

Japan and the EU should encourage the recycling of raw materials in developed countries through R&D, industrial policy, and international cooperation as well as promote research aimed at the substitution of critical raw materials.

#### *< Background >*

*The rising cost, price volatility, and unstable supply of raw materials are a concern for Europe and Japan business. The policies of resource-rich countries can alleviate or exacerbate such a concern. Stable access to rare metals is critical to expanding the production of rechargeable batteries, as well as to several other industries. There are diversified sources of supply of positive-electrode materials such as lithium, manganese, cobalt, and nickel used for rechargeable batteries. However, some other rare earths are currently only available from China. The EU and Japan should reinforce their efforts to diversify their sources of supply and to secure a stable supply of rare metals.*

#### **The Escalation of International Competition**

*The rapidly growing demand for energy and natural resources mainly comes from developing countries, notably China and India. International competition to secure energy and natural resources is intensifying. Moreover, raw-material and energy-access diplomacy has been on the rise and has the potential to distort markets. The inflow of financial funds has contributed to the price volatility of major mineral*

resources. The mining regulations and trade policies of the resource-rich countries can heavily influence the availability and price of some raw materials. All these developments put pressure on the competitiveness and stable and profitable development of Japanese and European industry. Rapidly rising raw material prices could adversely affect corporate profits and the world economic recovery. Commodity-price volatility in the agricultural sector is also a threat to global growth and food security.

#### Responsible Development of Natural Resources

The “Extractive Industries Transparency Initiative” (EITI) adopted at the “World Summit for Sustainable Development” in Johannesburg in 2002 sought to promote the responsible development of natural resources by increasing the transparency of payments made by companies to government and government-linked entities in the extractive sectors. With good governance, these natural resources can generate large revenues that governments of resource-rich countries can use to foster economic recovery and reduce poverty. However, when governance is weak, revenues may be squandered, creating a downward spiral of poverty, corruption, conflict, and the unsustainable development of minerals and resources. As of November 2010, only five countries were EITI-compliant, and 28 others had achieved EITI-candidate status. In several other countries, there are concerns that the revenue generated by natural resources is funnelled to funding conflicts. European and Japanese business can support the EITI objectives by implementing the open and responsible supply-chain management of resources. At the government level, the EU and Japan should pursue common strategies to keep energy and mineral markets open, undistorted, and stable.