The 2015 International Electricity Summit in Okinawa
Closing Statement

The 2015 International Electricity Summit (IES) in Okinawa, Japan, on 13-14 April 2015 brought together electric industry leaders from the world's major electric industry associations, including the Edison Electric Institute of the United States, EURELECTRIC, the Federation of Electric Power Companies of Japan, the Canadian Electricity Association and the Energy Supply Association of Australia. The industry leaders' discussion focused on four themes:

1. The Future of Electricity
2. Renewable Energy
3. Combination of Power Sources
4. Climate Change

◆The Future of Electricity

・Electricity demand in developed economies is slowing. The de-industrialization of these economies, the current and future risk of climate change, liberalization of electricity markets, shifts in energy fuels and increased consumer awareness of energy usage are resulting in significant structural changes to both supply and demand, having a material impact on the management of electricity businesses.

・On the demand side, with further liberalization, retail businesses are experiencing increased competition between established and new players, including those from other sectors.

・The focus of electricity businesses is changing. They are evolving into value-added services businesses focused on consumer needs, using increasingly diverse tariff options, and encouraging energy management programs that help improve the efficiency of energy consumption by introducing smart meters, enhancing efficient demand-side response, and developing energy conservation technologies.

・On the supply side, generators need to continue to supply competitive, sustainable, reliable, affordable and accessible electricity.

・As competition intensifies among retail and generation businesses, electricity transmission and distribution operators have a greater role to play in ensuring supply stability, such as maintaining the balance of supply and demand, upgrading electricity networks, and ensuring cyber security.

・To develop a fair and competitive environment, ensure a reliable supply of electricity and deliver benefits to consumers, the electricity utilities need to play an active role in designing the electricity system. Investments should mainly be driven by market signals, guaranteeing investor confidence and ensuring competitive costs, not by command and control. Government subsidies and non-market based choices should be avoided, as they distort markets, destroy value and result in stranded assets.

・In addition, the electric utilities agreed the best time to drive market reform is now, during the current period of structural change. Customers will benefit from increased efficiency, while electricity businesses can use this reform period to build new and more durable business models which reach beyond the conventional electricity business frameworks.

・Policy measures should promote innovation in technologies, products, services and business models to ensure continued security of supply. They need to foster research, demonstration and development (RD&D) activities to push forward innovation in all low-carbon technologies relevant to the new power system, including technologies such as carbon capture and storage, energy storage, power to gas, distribution grid modernization, smart meters, renewable energy technologies and energy efficiency.

◆Renewable Energy

・The increased use of all renewable energy sources, in an efficient, sustainable and cost-effective manner, is crucial to addressing climate change. The efficient integration of renewable energy will vary by country and region.

・Promotion of renewable electricity sources should be achieved in a cost-efficient manner through effective market signals, integration into the market and minimal market distortions.

・The costs of renewable energy are decreasing with technology development. However, some renewables can be more costly than conventional ones, placing an additional cost burden on consumers. Attention needs to be paid to the distributional effects arising from large-scale adoption of distributed generation technologies (e.g. solar PV) as badly designed policy schemes could lead to cost-shifting to those consumers who cannot afford distributed generation.

・Furthermore, the introduction of large quantities of intermittent sources of renewable electricity requires various measures for maintaining grid stability, including upgrading power grids, expanding inter-regional operation of grids, demand-side management and greater use of storage, including battery cells. These factors, combined with the need to ensure stable backup power sources into the future, pose many challenges in terms of supply stability and cost.

・The electric utilities are committed to further expand the use of renewable energy in a market-based fashion, recognizing the important role they play in the electricity businesses.

◆Combination of Power Sources

・The Summit leaders discussed the future combination of power sources, and agreed that it is important to pursue a balanced energy mix which does not depend excessively on a particular electricity or fuel source, depending on regional circumstances or access to natural resources, based on the principle which seeks to ensure Safety as well as to achieve Energy security, Economic efficiency and Environmental conservation simultaneously (S+3E).

・In terms of the energy mix, both coal power generation and nuclear power generation have an important role in the power systems by offering baseload power and contributing positively to security of fuel supply because reserves of coal and uranium are much more widely dispersed geographically than oil and natural gas. Thermal power also has an important role by providing flexible backup capacity and nuclear power offers an advantage in providing emission-free electricity.

・Coal-fired power will remain a source of baseload power subject to stringent regulations on emissions at state, national, and regional levels. Electric utilities must comply with these policies by actively adopting Best Available Technology (BAT) and developing and spreading clean coal-fired technologies such as Integrated coal Gasification Combined Cycle (IGCC) and Advanced Ultra-Supercritical (A-USC).

・Safety is the highest priority for nuclear power. The electric utilities must go beyond simply meeting the regulatory requirements, which will be tightened based on the latest findings, and must voluntarily and continually improve both the tangible and intangible safety aspects, and hence their ability to respond to emergencies.

・Moreover, policy measures for spent fuel management are needed to enable private power companies to run their nuclear businesses in predictable business environments amid the liberalization of the electricity market.

◆Climate Change

・The electric utilities have a key role to play in supporting a new international climate action framework beyond 2020, which is set to be achieved at the milestone COP21 in Paris this year.

・Particularly, they agreed, based on the S+3E principle, to develop and improve the efficiency of all technologies in the electricity sector, including nuclear, renewable energy, natural gas-fired and efficient coal-fired power, and that the global expansion of these technologies would help mitigate the impact on climate change. Furthermore, as electricity is increasingly decarbonized, low-carbon electricity would expand to a variety of sectors such as transport, and heating and cooling which contributes to emission reduction in entire society.

・To steadily implement these efforts, the utilities agreed that they should take the lead in building a low-carbon society, and formulate implementation plans for reducing GHG emissions based on their own circumstances.

・The utilities support meaningful pledges from all major economies to provide the necessary predictability and certainty for all energy companies as the clearest signal to governments, markets and the public that all parties are committed to addressing climate change.

・The Paris agreement should also lay the foundations for awareness of carbon pricing systems where these are assessed as the most effective and efficient solution. Increased international coordination at an operational level will help enable investment decisions in low-carbon technologies in the most cost-effective way.

・The international community should also support mechanisms dedicated to the development and demonstration of immature and breakthrough technologies, and therefore encourage international cooperation for the development of breakthrough technologies at world scale.

◆Conclusion

・Electricity plays an indispensable role in the transition to a globally sustainable energy system. The leaders gathered in Okinawa today reaffirmed their common goal to provide sustainable, reliable, affordable and accessible electricity to further economic growth on the path forward. The future of electricity is shaped by the decisions made today. The IES will continue to advance the global efforts of the power industry.