Memorandum of Cooperation

Between the Ministry of Economy, Trade and Industry of Japan and the Ministry for Ecological and Inclusive Transition of France

on Innovation for Energy Transition

1. Participants to this Memorandum of Cooperation

This Memorandum of Cooperation (MoC) is formulated between the Ministry of Economy, Trade and Industry of Japan and the Ministry for Ecological and Inclusive Transition of France (hereinafter referred to individually as "Participant" and collectively as the "Participants").

2. Context

- a) The Participants underline the urgency of tackling climate change and their full commitment to implement the Paris Agreement.
- b) Recognizing the crucial role played by energy transition in this regard, the Participants express their mutual interest in developing low carbon, affordable and reliable energy technologies and in improving energy efficiency in all sectors.
- c) Energy innovation is crucial for achieving transition towards a low carbon, sustainable and reliable energy system.
- d) The Participants acknowledge that strengthening cooperation between the two countries plays an important role to accelerate energy innovation.

3. Objective

The main objective of this MoC is to facilitate the energy transition in the two countries such as:

- a) Establishing a framework for cooperation between the Participants to accelerate innovation in the development of technologies that support energy efficiency and low carbon, affordable and reliable energy in the two countries;
- b) Encouraging industrial cooperation between the two countries' companies in this field; and
- c) Supporting efforts within multilateral fora to accelerate innovation in energy efficiency and clean energy technologies worldwide.

4. Areas of Cooperation

The Participants intend to work together in the following areas:

a) Renewables

 Sharing experience and best practices on public policies for the development of renewable energy, for all sources and all sectors (power, heating/cooling and transport);

- Sharing information, expertise and best practices on the integration of renewable energy into energy networks, including smart grids and district energy systems; and
- Sharing experience of research and development (R&D) on the development of renewable energy and the integration of renewable energy into networks.

b) **Hydrogen**

- Developing the potential for hydrogen to support the transition to a low carbon economy;
- Sharing information and expertise including in the framework of the Hydrogen Energy Ministerial Meeting; and
- Working together to promote international cooperation on research, development and deployment of hydrogen technologies, including through the G20, Mission Innovation and the International Partnership for Hydrogen and Fuel Cells in the Economy.

c) Nuclear Energy

- Continuing a close partnership in the field of nuclear energy as regards institutional, industrial and R&D cooperation, as well as the decommissioning of Fukushima Daiichi nuclear power station, the final disposal of high-level radioactive waste and the implementation of nuclear fuel cycle, especially through the continued cooperation between Orano and JNFL, in accordance with the highest safety, security and safeguards standards;
- Encouraging industrial cooperation in third countries, such as promotion of an optimized ATMEA type joint technology and supply chain cooperation for the EPR technology, for instance in India and the United Kingdom;
- Welcoming the results of collaboration in fast reactor technology development so far, and confirming to launch a new cooperation framework starting in 2020 on fast reactor technology, focusing on R&D based on simulation and experimental work, and instructing officials of the Participants to accelerate detailed consideration; and
- Acknowledging the strong cooperation between the relevant ministries and research institutions in many activities such as the Broader Approach Activities in Japan as well as the ITER project in France in the field of thermonuclear fusion, and consideration of possibilities of cooperation in the Jules Horowitz Reactor project in the field of Material Test Reactor.

d) Energy Efficiency

• Sharing information such as experience and best practices of energy efficiency in all sectors such as transport, industry and buildings.

5. The Forms of Cooperation

The participants intend to work together, in particular through:

- a) Exchange of information in the areas identified in Paragraph 4;
- b) Joint organization of lectures, seminars and workshops with relevant experts, scientists and industry and government representatives to discuss and exchange information;
- c) Exchange visits by relevant experts and delegations;

- d) Joint promotion of international alliances and coalitions contributing to worldwide energy transition worldwide, with a specific focus on developing countries;
- e) Encouragement to companies of the two countries to work together towards the acceleration of clean energy development and energy efficiency in Japan, France and third countries; and
- f) Other forms of cooperation decided by the Participants.

6. Management of the MoC

Implementation of this MOC will be managed through:

- a) Approval on overall priorities and direction of the Japan-France Energy Policy Dialogue and Japan-France Nuclear Cooperation Committee; and
- b) Approval on specific activities and work plans between officials of the Participants and with reviews of progress and priorities to be determined annually at the Japan-France Energy Policy Dialogue (all topics) and Japan-France Nuclear Cooperation Committee (nuclear topics).

7. Miscellaneous

- a) This MoC is not legally binding and does not give rise to any rights or obligations under domestic or international law.
- b) Any dispute arising out of the matters of this MoC may be settled amicably between the Participants through negotiations or consultations.
- c) According to the laws and regulations of the two countries and international agreements that are effective for the two countries, both Participants will fully respect relevant intellectual property rights.
- d) This MoC will commence on the date of signing of both Participants.
- e) This MoC may be modified upon mutual written consent by the Participants.
- f) This MoC may be terminated by either Participant by providing written notice three months in advance.

For the Ministry of Economy, Trade and Industry of Japan	For the Ministry for Ecological and Inclusive Transition of France
Hiroshige Seko	François de Rugy
Minister	Minister

13 June 2019