

MEMORANDUM OF COOPERATION
BETWEEN
THE MINISTRY OF ECONOMY, TRADE AND INDUSTRY OF JAPAN
AND
THE MINISTRY OF TRADE AND INDUSTRY
OF THE REPUBLIC OF SINGAPORE
FOR COOPERATION ON LOW-EMISSIONS SOLUTIONS

The Ministry of Economy, Trade and Industry of Japan and The Ministry of Trade and Industry of the Republic of Singapore (hereinafter referred to individually as a “Participant” and collectively as the “Participants”):

AFFIRMING Japan and Singapore’s shared ambition to cooperate to drive low-emissions solutions, including new and emerging low-emissions technologies, in support of an effective global response to climate change, while keeping economies strong;

RECOGNISING the commitment of Japan and Singapore to the Paris Agreement and the United Nations Framework Convention on Climate Change, and the full implementation and achievement of their goals;

ACKNOWLEDGING the strength and breadth of bilateral relationship and existing cooperation between Japan and Singapore, including the range of pre-existing low-emissions technology partnerships;

RECALLING Japan and Singapore’s shared interest in the political stability, economic growth and development of the nations of Southeast Asia and the wider Asia-Pacific region, as well as greater economic integration between the Participants; and

DESIRING as close regional partners to strengthen Japan and Singapore’s existing cooperation to maximise the economic and low-emissions benefits of each country’s domestic energy transition and the global energy transition.

Have reached the following recognition:

I. Purpose

1. This Memorandum of Cooperation (hereinafter referred to as “this MoC”) has been developed to expand the Participants’ strong bilateral relationship in several areas of common interest.

2. This MoC expresses the recognition and the intentions of the Participants in relation to cooperation on practical projects and initiatives to advance low-emissions solutions, including new and emerging low-emissions technologies.

II. Principles for cooperation

1. The Participants commit to cooperation under the following principles:
 - i. A shared commitment to practical and effective collaborative efforts to drive down the cost of the technologies needed to lower emissions and support the goals of the Paris Agreement.
 - ii. A shared commitment to supporting robust and transparent markets for low-emissions energy in Japan and Singapore and the region.
 - iii. A mutual effort to build stronger innovation linkages and support the exchange of information and views on low-emissions solutions and development strategies between the Participants.
 - iv. Inclusivity, through collaboration with research institutions, industry or others, as appropriate.

III. Priority areas for cooperation

1. Priority areas of cooperation which have been identified by the Participants include:
 - i. Long-term emissions reduction strategies and low-emissions pathways, including:
 - i.a. Exchange of information on the Participants' implementation of the Paris Agreement, including Long-term Low-Emissions Development Strategy, climate change policies and the role of technology, innovation and international cooperation in reducing emissions, to assist in identifying opportunities for future collaboration;
 - ii. Hydrogen, and hydrogen-based energy carriers including:
 - ii.a. Studies on hydrogen and hydrogen-based energy carrier supply chain:
 - Exchange information on hydrogen developments and cost projections, including regional and national hydrogen studies;

- Study and explore technical and commercial supply pathways to serve both Japan and Singapore markets, and broader demand in Asia-Pacific markets; and
- Explore Singapore's potential to become a regional trading hub for hydrogen and hydrogen-based energy carriers.

ii.b. Standards, regulations and certification:

- Explore opportunities for mutual cooperation on the development of international safety standards and regulations, particularly in the areas of transportation and shipping of hydrogen and/or hydrogen-based energy carriers, and use of hydrogen and/or hydrogen-based energy carriers in demand sectors of mutual interest;
- Exchange information to support work on the development of international hydrogen certification, such as guarantee of origin and environmental standards; and
- Collaborate and exchange information to support engagement with international bodies and other jurisdictions to shape international safety standards, regulations, and certifications.

ii.c. Research, development and demonstration (RD&D):

- Explore opportunities for joint research and development and technological transfer on mutual priority areas; and
- Exchange information to support work on RD&D regarding test-bedding or demonstration efforts, such as in the production, transportation, storage and deployment of low-carbon hydrogen and/or hydrogen-based energy carriers.

iii. Fuel ammonia, including:

- Exchange information on ammonia as a fuel about its supply chain development and related technologies in production, transportation, storage and deployment mainly for bunkering and producing electricity; and
- Explore opportunities for joint research, development, demonstration, technological transfer and commercial deployment based on mutual interest.

iv. Carbon capture, utilisation and storage (CCUS)/Carbon Recycling, including:

iv.a. CCUS/Carbon Recycling RD&D:

- Exchange information and research on CCUS/Carbon Recycling and other technologies (e.g. relating to CO₂-to-fuels, and the application of CO₂ to aggregate products); and
 - Explore cooperation on CO₂ carbonation/mineralisation within and between Japan and Singapore.
- iv.b. Industry performance:
- Exchange information on various aspects of the CCUS/Carbon recycling industry including the stakeholders and other elements as jointly determined by the Participants.
- v. Measurement, Reporting and Verification (MRV), including:
- v.a. Identification of opportunities to collaborate both bilaterally and with other countries in the region to quantify the impacts of low-emission solutions.
- vi. Transition Finance, including:
- vi.a. Exchange information on various efforts to develop a framework and standard of transition finance such as Green Taxonomy and Relevant Standards for Singapore and ASEAN, and Asia Transition Finance (ATF) which has been studied by private financial institutions.
2. The priority areas of cooperation in sub-paragraph 1 above are non-exhaustive and does not limit the mutual identification of further priority areas for cooperation through further bilateral processes between the Participants.

IV. Participating organisations

Government agencies and non-government institutions, including businesses, industry associations, scientific research institutions and educational institutions may lead or participate in activities identified as part of this MoC (hereinafter referred to as “Participating Organisations”), by mutual written consent between the Participants.

V. Confidentiality

1. All information which is obtained or received by a Participant from the other Participant in connection with this MoC (hereinafter referred to as “confidential information”), regardless of whether such information is specifically marked as confidential, will be held in confidence and will be used exclusively for the purpose for which it was disclosed. The Participants will take all reasonable measures to ensure that confidential

information is protected against loss and against unauthorised access, and that only authorised personnel have access to confidential information.

2. The Participants will not disclose confidential information to any third party, unless:
 - i. The disclosure is to Participant's respective officials and its Participating Organisations for the purposes of implementing this MoC or any cooperation project, program or activity as may be initiated or undertaken thereunder; or
 - ii. The Participant has obtained prior written approval for such disclosure from the other Participant which has provided the confidential information, including where disclosure is required by the national law or competent authorities of the former Participant.
3. This paragraph will apply even after the discontinuation of this MoC.

VI. Means of cooperation

1. Principal means of cooperation which have been identified by the Participants include:
 - i. Annual meetings between the Participants with the host rotating between the Participants:
 - The annual meetings will focus on dialogue to review progress and advance the objective of this MoC.
 - The Participants may jointly decide to include Participating Organisations in the annual meetings at their discretion.
 - ii. The Participants may hold more frequent informal or expert level meetings, as appropriate.

VII. Expenses

The Participants will be responsible for their respective expenses incurred in implementing this MoC, unless otherwise jointly decided in writing.

VIII. Status of this MoC

1. Nothing in this MoC creates, or is intended to create, any legally enforceable rights or impose any legally binding obligations on the Participants under domestic or international law.

2. Nothing in this MoC is intended to restrict the Participants' ability to cooperate with each other or with any third parties.
3. Any dispute or disagreement arising out of or in connection with this MoC will be resolved amicably by the Participants through mutual consultation and negotiation in good faith without reference to any third party, court, tribunal or any other forum.
4. The Participants intend for activities under this MoC to be conducted in accordance with their respective domestic laws and regulations.

IX. Modification and discontinuation

1. The cooperation under this MoC will commence from the date of signature and will continue for a period of ten (10) years, unless the Participants mutually decide to extend the MoC in writing.
2. This MoC may be modified in writing at any time with the written consent of the Participants.
3. This MoC may be discontinued at any time by either Participant providing a written notification to the other Participant at least six (6) months prior to the intended date of discontinuation.
4. Any discontinuation in line with sub-paragraph 3 above will not affect the implementation of any cooperation project, program or activity made under this MoC which are in progress at the time of the notification of such discontinuation. The Participants will mutually decide on measures required for the orderly conclusion of such cooperation project, program or activity.

Signed in duplicate on this 12th of January 2022 in the English language

For the Ministry of Economy, Trade and
Industry of Japan

For the Ministry of Trade and Industry of
the Republic of Singapore

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HAGIUDA KOICHI

Minister of Economy, Trade and Industry

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GAN KIM YONG

Minister of Trade and Industry