

STATEMENT OF INTENT
BETWEEN
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF ECONOMIC AFFAIRS AND CLIMATE POLICY OF THE KINGDOM
OF THE NETHERLANDS
CONCERNING
COLLABORATION ON HYDROGEN

The Department of Energy (DOE) of the United States of America, represented by the Hydrogen and Fuel Cell Technologies Office, and the Ministry of Economic Affairs and Climate Policy (MEACP) of the Kingdom of the Netherlands, represented by the Directorate-General for Climate and Energy (hereinafter referred to jointly as "Participants" and individually as "Participant"):

Noting the close relationship between the United States of America and the Kingdom of the Netherlands;

Acknowledging that energy security is national security;

Acknowledging the leadership of both Participants in hydrogen as a strategic area in the energy future of both countries and new value-chains worldwide;

Recognizing the hydrogen expertise, knowledge, and ambitions of industry, research, innovators, and regions in the United States of America and the Kingdom of the Netherlands; and

Recognizing the value and effectiveness of various international partnerships in which both the United States of America and the Kingdom of the Netherlands participate, such as the International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE), the International Energy Agency (IEA), Mission Innovation (MI), the Clean Energy Ministerial (CEM), and the Hydrogen Energy Ministerial (HEM),

State their intention as follows:

Section 1 - Purpose

The Participants recognize the importance of, and intend to further strengthen, mutually beneficial cooperation between them in the area of hydrogen, thereby advancing their common interests, as well as supporting their respective industries and other partners.

Section 2 - Planned Areas and Scope of Cooperation

Areas of cooperation under this Statement may include, but are not limited to:

1. Electrolyzer data collection, assessment, and information sharing to guide future planned research and development (R&D) on improving performance, efficiency, durability, cost, and other key metrics;
2. Electrolyzer benchmarking and protocol development, including developing Accelerated Stress Test (AST) methodologies to enable accurate and efficient measurement of electrolyzer performance over long duration and cyclic operation;
3. Hydrogen blending materials research, including planning for future R&D to determine the acceptable concentrations of hydrogen in natural gas pipelines and equipment;
4. Assessing the potential for hydrogen exports/imports, such as life cycle cost and emissions assessments of liquid hydrogen as well as other hydrogen carriers;
5. Safety information sharing and developing best practices and lessons learned;
6. Coordination on workforce development opportunities such as training material development for relevant hydrogen industries and supply chains;
7. Assessment of future R&D needs for hydrogen in industrial and heavy duty transportation applications of relevance to both the United States and the Netherlands, such as marine/port applications, heavy duty trucks and industrial end use;
8. Analysis of hydrogen and water resource availability (e.g., wind/off-shore, etc.) and requirements to determine supply and demand potential for various markets;
9. Researcher/fellowship exchange opportunities;
10. Exchange of information and experience on developments in hydrogen-certification, standardisation, and regulatory innovations needed to unlock hydrogen markets and value-chains;
11. Common analysis of obstacles to, and opportunities for, cooperation in the development of hydrogen value-chains to further inform future cooperative activities and enable those activities to be as evidence-based and practitioner need-driven as possible; and
12. Use of various tools such as an interactive website and smart monitoring methods to foster learning by doing.

DOE's Hydrogen and Fuel Cell Technologies Office intends to coordinate with other relevant offices within DOE on specific areas of interest as applicable.

Section 3 - Activities of Industry, Labs/Institutes, Regions and Innovators

The Participants intend to encourage cooperation between technical experts at DOE and its national laboratories/supported organizations and at MEACP and its supported organizations, labs, innovation networks, and universities, which may take a number of forms, including:

1. Exchange of publicly available scientific and technical information;
2. Visits and staff exchanges between the Participants to each other's facilities;
3. Conduct of workshops and meetings;
4. Cooperation in research programs of common interest and priority and sharing of research facilities;
5. Other forms of cooperation as the Participants may jointly decide, aligned with this Statement and under their respective authorities.

The Participants may, as appropriate and upon mutual written consent, invite experts from other organizations to participate in cooperative activities under this Statement, including as a means to facilitate coordination with relevant industry partners that have major activities both in the United States and the Netherlands.

Section 4 - General Considerations and Management

1. Cooperation under this Statement may commence upon signature of both Participants.
2. This Statement may be modified at any time upon mutual written consent of the Participants.
3. Participants intend to evaluate progress in their cooperation under this Statement on a biannual basis based on both the experiences of the Participants and input from relevant organizations.
4. The Participants may discontinue cooperation under this Statement at any time by mutual written consent. Alternatively, a Participant that desires to discontinue its participation in this Statement should endeavor to provide the other Participant at least ninety (90) days advance written notice.
5. Each Participant is responsible for the costs of its participation in all cooperative activities under this Statement, unless specified otherwise in writing.
6. The conduct of cooperative activities under this Statement is subject to the availability of funds, technical resources, and personnel.
7. Each Participant should conduct the activities contemplated by this Statement in accordance with applicable laws, regulations, and policies to which it is subject, and applicable international agreements to which its government is party.
8. The Participants do not anticipate the generation of intellectual property arising from activities under this Statement, or the exchange of business-confidential information. If the Participants decide that a particular activity may lead to the creation of intellectual property or the exchange of business-confidential information, the Participants intend to consult with each other and make appropriate written arrangements for the protection and allocation of such intellectual property and the protection of such business-confidential information.
9. This Statement does not create any legally binding obligations between the Participants.

Signed in duplicate.

FOR THE DEPARTMENT OF
ENERGY OF THE
UNITED STATES OF AMERICA:

Date: 10/1/2020

Place: Washington, D.C.

FOR THE MINISTRY OF ECONOMIC
AFFAIRS AND CLIMATE POLICY
OF THE KINGDOM OF THE NETHERLANDS:

Date: 10/2/2020

Place: Den Haag