



Joint Declaration of Intent

on cooperation in the field of green hydrogen and hydrogen technologies

between

the Free and Hanseatic City of Hamburg and the Government of Newfoundland and Labrador

Introduction

The Free and Hanseatic City of Hamburg and the Province of Newfoundland and Labrador (hereinafter referred to as the "Sides") are both actively committed to implementing the energy transition and contributing to global emissions reduction targets. Both recognize an important role for green hydrogen as the energy carrier of the future and are among the regions with a recognized high level of expertise and natural resources, which they want to expand further.

Germany and Canada have both released ambitious hydrogen strategies which can be viewed as complementing each other. The Canadian-German Energy Partnership, which was established in March 2021 following the signing of a Memorandum of Understanding has noted hydrogen as an important area for bilateral cooperation.

Hamburg is an established hydrogen location in northern Germany. Its large number of local players from industry and research, as well as its clear political commitment to a hydrogen economy, create a fertile ecosystem and excellent conditions. As a port location with excellent hinterland connections, traditional import expertise, and a strong will to assume responsibility, Hamburg is also working to establish and manage an import structure for hydrogen.

The aim is to serve German and European hydrogen needs as a Green Hydrogen Hub and thus, in the long term, to drive forward the decarbonisation of industry and further improve the conditions for a green, sustainable hydrogen economy. In signing this Joint Declaration of Intent, the Senate of the Free and Hanseatic City of Hamburg will support the exchange of information between all relevant authorities, such as those responsible for the economy, energy, climate, environment, higher education, science and research.

Newfoundland and Labrador's abundant natural resources, including vast wind capacity, deep water sea ports, strategic geographic location and existing high percentage of renewable generated electricity mean it has the ability to produce significant quantities of green hydrogen that vastly exceed its local demand and could be used to serve an international export market. Newfoundland and Labrador benefits from a skilled energy workforce, particularly in the offshore and marine sectors, and key infrastructure assets. These include a number of deep water ports and harbours that could act as transportation and storage hubs for a future hydrogen export industry. There are also a number of domestic and international companies with active interest in the province in these and related areas that can help to facilitate the development of a hydrogen export industry.

The Government of Newfoundland and Labrador has committed through its Renewable Energy Plan to develop its hydrogen potential and to enhance the province's ability to determine hydrogen opportunities that provide the best long term benefit for its residents (e.g. increased jobs, gross domestic product, and tax revenue to support government programs and services). In signing this Joint Declaration of Intent, the Government of Newfoundland and Labrador will support the exchange of information between all relevant authorities, such as those responsible for the economy, energy, climate, environment, higher education, science and research.

The Sides have already established a common understanding through previous political exchange of the potential for future cluster and business exchange in the wind and hydrogen sectors. In addition to their matching political and strategic goals across climate protection and innovation, the Sides have a strong interest in technical exchange and trade cooperation in the hydrogen sector.

Declaration of intent

Against the background of their shared goals to establish technology partnerships and trade relations in the field of green hydrogen, its energy sources and derivatives, the Sides concur that close cooperation and collaboration is beneficial and promising for both Sides and will make a significant contribution to climate protection. Both Sides are willing to share their experiences, lessons learned and channel their expertise and strengths in a planned and coordinated manner for the purpose of establishing and developing a global, self-sustaining hydrogen economy. Both recognize that an essential component of a powerful hydrogen economy is production, availability and security of supply. As future production and consumption locations, both Sides have unique offerings to share in a manner that can be mutually beneficial.

The Sides, therefore, in addition to reaffirming their relationship, conclude this Joint Declaration of Intent for cooperation especially in the fields of knowledge exchange, technology transfer and the import/export of green hydrogen and its products.

The aim of the cooperation between the Sides and participating companies is to assist them in their respective efforts and to help facilitate the production and purchase of green hydrogen in sufficient quantities. In this way, the Sides will endeavor to develop supply chains, market opportunities and value creation.

In their cooperation, the Sides will not be unilaterally bound to this Joint Declaration of Intent. They will also not be barred from pursuing similar bilateral opportunities with other jurisdictions in Europe, North America, or elsewhere. There may also be opportunity to build up stronger cooperation by involving other regions or cities.

Purpose and objectives of the cooperation

On the basis of mutual trust and respect, the Sides will strive for constructive cooperation in all relevant fields of activity within the framework of a hydrogen trade relationship. In this regard they will jointly pursue objectives including, but not necessarily limited to, the following:

- explore the economic and environmental opportunities of hydrogen technology, for the purpose of achieving the Paris climate goals;
- drive the scaling of the domestic green hydrogen economy in both Side regions;
- establish an understanding of the commercial opportunity and scale of the future import market into Hamburg and the future export market from Newfoundland and Labrador;
- assess the potential to establish international supply chains between Hamburg and Newfoundland and Labrador for green hydrogen and its derivatives, with a view to supplying both Hamburg and the wider German and northern European hinterland;
- evaluate technical, scientific and functional concepts for the production, international transport and use of green hydrogen in industry, transport and possibly the heating sector;
- encourage the development of common standards in areas of sustainability and safety;

- encourage the development and expansion of renewable energies (e.g. wind energy, solar energy, hydro) for the production of green hydrogen and current energy industry challenges (e.g. use of surplus wind, sector coupling and storage);
- identify existing obstacles (e.g. law, regulatory gaps, costs) and evaluate them with regard to their effect on economic success, and to share knowledge to support the mitigation of these obstacles, for example through the adaptation of legal frameworks or certification regulations; and
- work collaboratively to unlock private sector and federal government investment in support of joint projects or initiatives.

By working together, the Sides aim to create the conditions for the early export/import of hydrogen and its products to Hamburg and its hinterland, and to promote the rapid development of a self-sustaining market for hydrogen.

Implementation, measures

Within the framework of their cooperation, the Sides will strive for a continuous exchange and will seek to implement the following, amongst other measures:

- Regular professional exchange of information, including industry and research, on technical and
 operational issues regarding the production, storage, transport and use of green hydrogen, as
 well as on system issues and the performance status of systems and components;
- Joint and coordinated initiatives, e.g. for the adaptation of legal framework conditions and with regard to a simplified certification regulation;
- Investigation involving industry and research into joint market opportunities and trade scenarios (e.g. via feasibility studies);
- Initiation of cooperation in the field of green hydrogen between research institutes and universities from the Sides' regions;
- Encourage the exchange between companies from the Sides' regions;
- Preparation of possible joint projects, as well as clarification and use of funding programs;
- Joint initiatives on the content and organization of funding programs (European Investment Bank, World Bank, etc.);
- Encourage events and the networking of actors to prepare opportunities for mutual cooperation or investments in the Sides' regions; and
- Joint communication and dissemination to the public to improve perceptions of the benefits of hydrogen technology and of the Sides' regions in particular.

The Sides will consult each other regularly on the effectiveness of their jointly decided activities and the possible adaptation and/or addition of points of focus.

Duration and effect

This Joint Declaration of Intent will come into effect for a period of five years from the date of its signature and may thereafter be extended by mutual agreement for periods to be determined between the Sides.

If one of the Sides wishes to end the cooperation before the period of duration is complete, the Side concerned will notify the other of its intention in writing three months in advance.

This Joint Declaration of Intent is not intended to be legally binding and is not meant to constitute an international treaty or to create any rights or obligations under international law.

Further, it is not meant to commit either Side to provide financial resources or permit any claim to such provision. Nor is it intended to serve as a basis for the transfer of financial resources.

The Sides aim for a regular exchange between the actors and will appoint contact persons at working level to accompany the implementation of this Joint Declaration of Intent.

Signing

Signed in Hamburg, Germany on 27 September 2022, in duplicate, in the English language.

For the Newfoundland and Labrador Government

Steve Crocker

Minister of Tourism, Culture, Arts and Recreation

For the Senate of the Free and Hanseatic City of Hamburg

Almut Möller

State Secretary and Plenipotentiary of the Free and Hanseatic City of Hamburg to the Federation, the European Union, and for Foreign Affairs