

## A Buy North American Green Energy Policy

**Submission by Hitachi ABB Power Grids**

**Special House of Commons Committee on the Economic Relationship between Canada and the United States**

43rd Parliament, 2<sup>nd</sup> Session  
April 23, 2021

**Recommendation:**

Whereas the *Roadmap for a Renewed U.S.-Canada Partnership*, put forth by Prime Minister Trudeau and President Biden calls for “a coordinated approach to accelerating progress towards sustainable, resilient, and clean energy infrastructure, including encouraging the development of cross-border clean electricity transmission.”

And whereas the United States aims to achieve a net-zero carbon pollution-free power sector by 2035 and Canada aims to achieve 90% non-emitting electricity by 2030.

We therefore recommend the creation of a “Buy North American Green Energy Policy” which would:

1. Ensure a coordinated approach to the production of clean energy infrastructure.
2. Maintain the free flow of goods and critical cross border clean energy supply chains.

## INTRODUCTION

Hitachi ABB Power Grids is pleased to submit the following proposal for a *Buy North American Green Energy Policy* which calls for a coordinated approach to the production of green energy infrastructure in Canada and the United States.

A Buy North American Green Energy policy would align with the priorities of the *Roadmap for a Renewed U.S.-Canada Partnership* put forth by Prime Minister Trudeau and President Biden and enable the transition to a net-zero carbon pollution free power sector.

## BACKGROUND

Hitachi ABB Power Grids is a global leader and pioneer in power technologies and critical infrastructure, headquartered in Zurich, Switzerland with locations in more than 90 countries, including Canada and the United States.

Hitachi ABB Power Grids is a critical provider of North American electrical infrastructure in Canada and the United States.

Over the last decade Hitachi ABB Power Grids has made significant investments in both Canada and United States (the largest market for its products), employing thousands of employees in diverse communities on both sides of the border.

Hitachi ABB Power Grids has successfully built one of the largest Canadian and US-based manufacturing operations for transformers and high-voltage products over many decades. The company is committed to the security of our products, systems, and services.

In Canada, Hitachi is proud to operate four high value transformer facilities:

1. Varennes, Quebec with 300 employees, where Power Transformers are built for domestic and international export.
2. Quebec City, Quebec, with 97 employees, where pole-mounted distribution transformers are produced for domestic and North American export.
3. Saint Laurent, Quebec, our headquarters, employing 150 people and the location of high volt-age breaker and capacitor bank final assembly and testing.
4. Stoney Creek, Ontario, with one re-manufacturing and retrofitting facility employing over 100 specialists.

The Canadian headquarters of Hitachi ABB Power Grids (HAPG) in Saint Laurent, Quebec is also the location of the newly launched Digital Power Grid Centre. This is an important new cybersecurity and digital research facility, part of the global research network of HAPG.

These operations are deemed critical essential service providers to the utility sector and remained operational during the COVID-19 pandemic to ensure the safe and reliable supply of electricity to hospitals, cities, and industries.

## **THE NORTH AMERICAN GRID IS HIGHLY INTEGRATED**

In Canada, transformer manufacturing contributes more than a billion dollars in economic output, millions to GDP, over 20,000 jobs and direct and indirect benefit on supply chain impact.

Canadian based power transformer manufacturers are challenged by increasing offshore competition with injurious dumping margins of up to 35% as well as other factors such as domestic labor costs, local availability of material supply and protectionist US measures.

HAPG manufacturing in Canada exports approximately 40% of its production to the United States.

## **CLEAN HYDROELECTRICITY IS VITAL TO THE TRANSITION TO NET-ZERO**

The Government of Canada has set out measures to reach the government's 2030 goal of a 40-45% reduction of emissions below 2005 levels. Further, the government aims to achieve net-zero emissions by the year 2050. Similarly, the United States set a target to achieve 50-52% reduction of greenhouse gas pollution from 2005 levels by 2030 and aims to achieve net-zero emissions by 2050.

In order to achieve these goals, Canada will need to increase generation from carbon-free sources and also develop a robust transmission network.

Through its Renewed U.S.-Canada Partnership, Canada and the US will work closely to recover from COVID-19, create jobs and secure a cleaner future. Clean hydroelectricity will play a vital role in North America's transition to net-zero.

Existing dams in Quebec, Newfoundland-Labrador, Manitoba and British Columbia provide some of the most efficient and largest installed storage resources in North America and there is still vast hydro-resources in Canada that have yet to be developed.

Expanding and upgrading regional transmission grids helps buyers and consumers get access to an expanded pool of renewable energy resources. It integrates low-cost renewables into the existing grid, while upgrading the grid to handle variable renewable energy sources. Additionally, enhanced transmission facilitates increased electrification using carbon-free generation and ensures grid reliability in the face of new patterns of electricity demand

Without transformers it is not possible to transmit electricity over long distances nor can safe and reliable electricity be supplied to power our cities and industries.

The expected energy transition will take time. Clean energy requires more electric infrastructure for new transmission, distribution of electric supply through the grid, such as that produced by Hitachi ABB Power Grids.

## **CROSS BORDER SUPPLY CHAIN ISSUES**

Transformers require highly specialized materials utilized in the making of components that are then integrated into each unit. Each transformer is a customized production with very specific silicon and amorphous core steel requirements, as well as copper and aluminum conducting wires.

In the past the United States Department of Commerce has initiated several investigations with respect to the matter of domestic steel production and the supply chain impacts for industry and the economy.

The domestic availability of electrical grade steel for transformers has been a point of contention with respect to non-North American supply of these materials into the USA though shipments of grain oriented electrical steel (GOES).

Currently there is highly limited supply of GOES steel in the USA and there is pressure upon American policy makers by domestic producers to enforce Buy American strategies upon transformer manufacturers to increase the use of domestically produced GOES steel. However, both domestic capacity for electrical steel and electrical transformers are currently insufficient to meet demand.

### **Recommendation:**

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### **Submitted by:**

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