

What if Canada Were an EU Member? Canadian Hydrogen Policy in a European Context

André Plourde, Department of Economics, Carleton University, 1-613-854-1204, andre.plourde@carleton.ca

Overview

Canada is one of the world's most GHG-intensive economies. With an eye on meeting the country's commitments under the Paris Agreement, ambitious plans for reducing emissions have been announced by governments at both federal and provincial levels (e.g., Canada 2021). A key component of these plans is the role that policy-makers hope to see hydrogen play as a critical energy carrier in the coming decades and beyond (e.g., Canada 2020). These ambitions are shared by numerous countries around the world, including by the EU and its member states.

The objective of this paper is to compile and assess hydrogen policy pronouncements and actions by governments in Canada using the framework provided by key EU statements (e.g., European Parliament Research Service 2021). This will allow for an examination of similarities and differences between approaches adopted in Canada and in the EU. The overall context of the paper will be set around the hydrogen policy framework proposed by the International Energy Agency (IEA 2019, especially chapter 6). Proceeding in this manner will allow for the identification of strengths, weaknesses, and gaps in Canadian policy in comparison to the EU approach and to the IAE framework.

Methods

Proposed and existing policy in Canada and in the European Union as it applies to hydrogen as an energy carrier will be summarized and compared. As noted above, the overarching framework for this analysis will be that proposed for hydrogen by the International Energy Agency. Data on greenhouse gas emissions and energy use as well as projections of the role of hydrogen in future energy systems will be taken for sources such as Statistics Canada, Environment and Climate Change Canada, the Transition Accelerator (2021), and Eurostat.

Results

The key results will involve an assessment of the intended role of hydrogen in the energy systems of the future through a comparison of existing and proposed hydrogen policy in Canada and the European Union. Differences between the approaches proposed in Canada and the EU will be identified and highlighted.

Conclusions

Is the policy approach proposed for Canada consistent with that proposed for the EU? What are the relative strengths and weaknesses of the Canadian approach? What are the key gaps in the proposed approach for Canada in comparison to that proposed for the EU and relative to the framework proposed by the IEA?

References

- Canada (2020). *Hydrogen Strategy for Canada. Seizing the Opportunities for Hydrogen*. Ottawa: Government of Canada.
- Canada (2021). *Adapting to the Impacts of Climate Change in Canada: An Update on the National Adaptation Strategy*. Ottawa: Environment and Climate Change Canada.
- European Parliament Research Service (2021). *EU Hydrogen Policy. Hydrogen as an energy carrier for a climate-neutral economy*. Brussels: European Union.
- International Energy Agency (2019). *The Future of Hydrogen: Seizing Today's Opportunities*. Paris: IEA.
- Transition Accelerator (2020). "Towards Net-Zero Energy Systems in Canada: A Key Role for Hydrogen", *Transition Accelerator Reports*, 2:3, 53 pp. September.