

**Submission to Department of Finance,
Government of Canada**

on

**the Clean Hydrogen Investment Tax Credit
Legislative Proposal**

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Contact: Charlene Johnson, CEO cjohnson@energynl.ca
100 New Gower Street, Cabot Place
Suite 902
St. John's, NL A1C 6K3



About Energy NL

Energy NL was founded in 1977 to represent the supply and service sector of the energy industry. Today Energy NL represents over 500 member organizations worldwide which are involved in, or benefit from, the energy industry of Newfoundland and Labrador. Energy NL members are a diverse representation of businesses involved in a range of activities related to both renewable and non-renewable energy development, construction, and operations. This includes, but is not limited to, areas such as direct offshore and onshore supply, health and safety equipment and training, engineering solutions and fabricators, law firms, and human resource agencies.

Energy NL is pleased to have an opportunity to provide this submission on the clean hydrogen investment tax credit legislative proposal. Energy NL supports the energy evolution and the importance of reaching net zero as we all work towards improving the global environment and mitigating climate change, and we agree that development of Canada's hydrogen industry is an important component of Canada's stated climate change goals.

Energy NL's Approach to this Submission

Many aspects of the of the legislative proposal are quite technical and project specific. Project developers and companies which have the detailed technical and project-specific knowledge (i.e. production pathways, hydrogen demand, project equipment) are best positioned to directly inform the Government of Canada related to the design and implementation of the Investment Tax Credit (ITC). This submission is intended to supplement rather than displace those of other key stakeholders, such as project developers, and we defer to those companies and organizations on the specifics of the final design of the ITC and wording required for the legislation.

Comments on the Clean Hydrogen Investment Tax Credit Legislative Proposal

Energy NL is supportive of the Government of Canada's clean hydrogen investment tax credit, which will incentivize investment in clean fuels production in Canada and reduce risk associated with development of this new industry. The details of the design of the investment tax credit and ability for developers to access the credit will determine its success. Energy NL is pleased that the Government of Canada has been working on the design with developers and, over the past year, has been taking stakeholder feedback into account – something which is evident in various aspects of the legislative proposal.

The following highlights current issues raised by Energy NL members:

Equipment Eligibility: There is a need to broaden the equipment and construction eligibility to ensure all of the types of equipment used for hydrogen production are eligible, and this should also include the equipment associated with the production of other derivative clean fuels, not just hydrogen and ammonia. Some specific examples include the equipment required for vapour capture and compressions. Underground storage facilities (i.e. salt); marine transportation, buildings and site clearing/excavation should also be included. The legislative proposal appears to be overly prescriptive and does not account for the fact that technology and the types of equipment will change as clean fuels processes evolve.

Excluded Property: Clarity is required as to what is included in equipment used for offsite transmission, transportation, distribution, or storage. Projects proposed in Newfoundland and Labrador are predominantly export-based and, in order for them to proceed, will require some extensive investment

in infrastructure and activities to ensure product can reach global markets. These types of investments should also be included in the eligibility for calculation of the tax credit.

Definition of Eligible Power Purchase Agreement: Several aspects of the definition of an “eligible power purchase agreement” require clarification and or adjustment.

- The definition, as stated in the legislative proposal, is restricted to include electricity sourced from hydro, solar, or wind. This definition should be expanded to include a broader range of renewable forms of energy including geothermal, biomass, and nuclear.
- The requirement that power come from a source which first commences electricity no more than one year before the taxpayer’s first clean hydrogen project plan is filed with the Minister of Natural Resources is limiting. The European Union Delegated Acts on Renewable Hydrogen and the United States Clean Hydrogen Production Tax Credit allow for up to 36 months. Consideration should be given to aligning this requirement with other jurisdictions, by extending the timeframe from the currently proposed one year, to three years, so that Canada’s projects can be competitive with those in other jurisdictions.
- The European Union also allows for the incorporation of existing renewable power sources which are operational prior to 2028, and Canada’s clean hydrogen investment tax credit should include similar provisions.
- The requirement that power be for the sole purpose of the hydrogen project is another aspect which is overly prescriptive and could preclude domestic or export benefits which could be derived from other uses of any excess power.

Specified Percentage of the Tax Credit for Clean Ammonia and Derivative Fuels: While the maximum credit available for eligible clean hydrogen property is set to 40%, for clean ammonia equipment the maximum credit is limited to just 15%. The treatment of equipment required for production of ammonia and other hydrogen derivatives should be equivalent to that available for clean hydrogen equipment. Projects in Newfoundland and Labrador are primarily export focused, and equipment to produce ammonia and other hydrogen derivatives will be essential.

Determining Carbon Intensity and Application of Canada’s Fuel Life Cycle Assessment Model: The use of Canada’s Fuel Life Cycle Assessment (LCA) Model for determining carbon intensity is cumbersome and adds some significant regulatory burden. A number of areas regarding the use of this model require clarity:

- For projects connected to a grid without an eligible power purchase agreement, would the carbon intensity of the entire provincial grid be used, or just the carbon intensity of the portion of the grid physically connected to the project?
- If the clean power comes from outside of the province where the hydrogen project is located (e.g. Muskrat Falls power provided into Quebec for the purposes of a hydrogen project in Quebec) is the project developer allowed to calculate carbon intensity using the averaging of the

Quebec and NL grids, or just the NL grid (origin of the power), or must they take into account the carbon intensity of only the Quebec grid?

- It is important that the approach to determining the carbon intensity of projects connected to the Newfoundland and Labrador grid be forward-looking, and not include emissions associated with any historical reliance on hydrocarbons. Additional clarity is required regarding the calculation of the carbon intensity of the sale of energy to the grid. Also, any curtailed wind (beyond that used for the project, or back to the grid) should be included as zero carbon intensity.
- If the grid provider can issue a certificate specifying the carbon intensity of the grid electricity delivered to the project, will this be acceptable in determining the carbon intensity of the grid? To clarify, if Hydro-Quebec provides a Quebec-based project with certification that their power is coming 100% from Churchill Falls and Muskrat Falls, is the project going to be able to declare that the carbon intensity of the grid is zero?
- Would the life cycle approach to determining carbon intensity calculation include emissions associated with clean fuels transportation and from final consumption? As many of the proposed projects will be for export, the transportation and final product use will be beyond the control of developers. As indicated in Energy NL's submission of January 6, 2023, Canadian developers should be given full credit for their clean fuels production and this can be best accomplished by measuring carbon intensity at the point of production.
- The LCA Model has lag and uses inputs which may not reflect the current greening of the grid. From the Federal Clean Fuels Regulations, which is the basis for the value in the LCA Model, indications from Environment and Climate Change Canada suggest the value for Newfoundland and Labrador is set pre-Muskrat Falls, and would be 16 g CO₂e/MJ, which would be higher than the present value. In addition, flexibility should be provided so that going forward, improvements to the greening of the grid are factored into the model.

Treatment of Limited Partnerships: The vast majority of renewable energy projects developed in Canada will prefer to use a limited partnership structure. The current legislative proposal contains provisions which, when applied to limited partnerships, drastically limits the availability of the full value of the clean hydrogen ITC to the limited partners, and instead ascribes much of the value to the general partner (which leads to adverse outcomes in the context of a project which has been debt financed). This proposed language may lead to projects being forced to adopt less preferred corporate structures, which may in turn lead to a selection of alternate jurisdictions for investment

ITC Phase Out at 2034: Can flexibility be built into the design to go beyond this time frame for projects which may experience delays in development and construction? While projects are ramping up quickly, it is a new industry which will require new legislation in some provinces and other factors, such as availability of electrolyzers, which will dictate project scheduling that are beyond the control of developers.

Concluding Remarks

Energy NL is supportive of the Government of Canada's plan to encourage investment into local hydrogen development, construction, and production, via a fully refundable investment tax credit commencing when capital is deployed. The design and approach to implementation will dictate the success of the ITC as a tool for transforming Canada's energy sector towards production of clean fuels such as hydrogen. During the past year, the Government of Canada has made impressive progress towards the design and establishment of the clean hydrogen tax credit, and with some adjustments as outlined, can properly position Canada as a world leader in clean fuels production. Energy NL is appreciative of the opportunity to provide input into this consultation and are keen to participate in other such opportunities in future.