

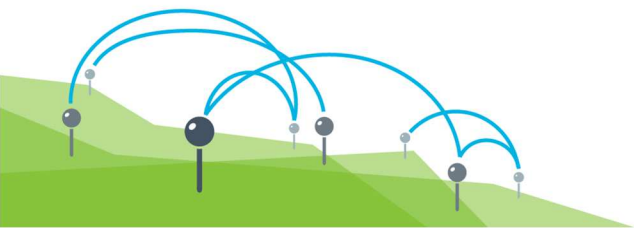
# PLACE Centre's Submission to the Federal Consultation on Labour Conditions for Clean Tech and Clean Hydrogen Investment Tax Credits

## Introduction

The [PLACE Centre](#) is a policy research initiative based out of the University of Ottawa, and is part of the [Smart Prosperity Institute](#). The PLACE Centre, which stands for Propelling Locally Accelerated Clean Economies, focuses on the complex challenges limiting clean economic growth in Canadian communities. Our core approach is “place-based,” meaning the PLACE team works with all levels of government, industry, and civil society organizations to ensure communities across Canada have the solutions needed to overcome the challenges they face in advancing clean economic growth. With this approach, the PLACE team can create practical, place-based recommendations where everyone involved can collaborate and work towards making progress in solving these problems. That way, every region and community across the country can attract investment, create jobs, and lower the cost of living – improving the quality of life for everyone while creating a lower emissions world.

The PLACE Centre is heavily engaged in research, analysis, and discussion around the clean economy workforce. Previous research with partners on [net-zero skills](#) with the [Diversity Institute](#) and [adaptation jobs](#) with [Insurance Bureau of Canada](#) has identified many of the skills needed to advance clean and resilient growth across Canada. In addition, PLACE's [ongoing research project](#) with the [Future Skills Centre](#) is focused on identifying the changes in the scale and skill set of the workforce to support clean growth in regions across the country.

In the [2022 Fall Economic Statement](#), the government proposed that businesses adhere to certain labour conditions in order to be eligible for the maximum investment tax credit rates for clean technologies and clean hydrogen. These new tax incentives are an opportunity to support greater investment into clean energy and technologies, and have been [previously championed](#) by the Smart Prosperity Institute. This consultation response leverages PLACE's previous and ongoing work to make formal recommendations on the design and scope of the labour conditions that should be met for maximum funding eligibility under the new investment tax credits (ImTCs) for clean technologies and clean hydrogen.



## **Are there modifications to the prevailing wage and apprenticeship rules introduced in the Inflation Reduction Act in the United States that should be considered in the Canadian context? If yes, how should they differ and why?**

In Canada, prevailing wage requirements should use a regional median of wage rates within a particular occupation as a benchmark. This is similar to the methodology used in the United States. A methodology for developing a Made-in-Canada approach is outlined in the responses below. For apprenticeship requirements, the requirement in the United States that a percentage of total project hours should be worked on by apprentices should be similarly used in Canada. Use of this measure allows employers to track the total number of labour hours performed by apprentices in a specific project, providing a benchmark for greater participation moving forward. This is useful to both apprentices (as some in time-based apprenticeship models have requirements for hours worked on a job site that are needed to receive certification) and employers (as the use of a total hours metric simplifies reporting and reduces the administrative workload).

## **For example, in the United States, in broad terms the prevailing wage is determined in relation to an average wage paid to workers in a particular occupation employed on similar projects in the same area. What approaches could be used to determine the prevailing wage in Canada for the purpose of the proposed tax credits? What data and methodologies should be used in determining the prevailing wage in Canada for the proposed tax credits? How might the geographic area be defined when determining the prevailing wage?**

In the United States, the prevailing wage requirements are set using available labour market information from the federal Department of Labour, and are equal to the basic hourly wage rate plus fringe benefit rates applicable to a given occupation.<sup>1</sup> Within Canada, prevailing wages are defined differently, and data for prevailing wage levels can be found on Job Bank, a federal labour market database.<sup>2</sup> Requirements for assessing and including prevailing wage data are already a component of Labour Market Impact Assessments, which are required as part of the application process for the Temporary Foreign Worker Program as well as other programs for the employment of immigrants. The existing definition used by Employment and Social Development Canada is “the median hourly wage (or annual salary as published on Job Bank) or higher for the particular occupation and work location.”<sup>3</sup>

PLACE recommends that this existing definition from Employment and Social Development Canada be adopted for the prevailing wage requirements outlined for these tax credits. There are two reasons for this. The first is data availability and simplicity. Adopting an existing methodology for determining wage requirements will allow policymakers to access wage data through one of the largest existing federal data sets. This reduces the risk that there is no wage data available for occupations that could be supported by

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<sup>1</sup> [Prevailing Wage and Apprenticeship Requirements for Inflation Reduction Act Clean Energy Tax Credits.](#)

<sup>2</sup> [Job Bank.](#)

<sup>3</sup> [Hire a temporary worker in a high-wage position - Wages, working conditions and occupations - Canada.ca.](#)



these tax credits. The second is credibility. Use of existing federal data reduces the risk of unreliable third-party data when determining eligibility for federal funds.

For the same reasons outlined above, the methodology for determining the geographic area in which tax credits are applicable also should be adopted from the wage requirements outlined in the Temporary Foreign Worker Program, which specify the following ordering of regions:<sup>4</sup>

- The primary geographic scope should be the local area or economic region identified for this occupation.
- If the median wage is listed as “N/A” for the local area (economic region) where the work is located, employers should consult the provincial/territorial level prevailing wage.
- If the provincial/territorial wage is not available, employers should consult the national prevailing wage.

One dynamic that will need to be considered by policymakers is that increases in the cost of living across the country will have impacts on prevailing wages. PLACE’s research on clean growth across the country has uncovered that youth are demanding higher wages than they previously had as a result of inflation and rising housing prices. This dynamic will likely continue until housing affordability is restored. Incentives will need to be mindful of the data sets used to determine prevailing wage levels as historic data may not reflect recent increases in wages for workers of all ages that have occurred to account for cost inflation.

**For example, in the United States, businesses must ensure that 10-15 per cent of total labour hours are performed by registered apprentices. What metric could apply in Canada to determine the appropriate contribution of apprentices to a project? Are there any other kinds of apprenticeship conditions that should be considered besides, or instead of, percentage of hours worked?**

PLACE believes the appropriate metric in this situation is the amount of labour hours performed by registered apprentices for a particular project as it can provide an easily quantifiable indicator to measure apprentice contribution to a project. Most certifications in skilled trades require apprentices to attain a minimum level of work hours. At the same time, the unavailability of suitable work has been cited as one of the reasons for apprentices dropping out of their certifications.<sup>5</sup> By guaranteeing labour hours to apprentices, employers will be providing them with the work conditions necessary to ensure they stay in that role till completion, which is critical in both time-based and competency-based certification models. However, given the distribution of potential timelines for projects that could be eligible for an investment tax credit aimed at supporting clean technology (timelines could range from the hundreds, to the tens of thousands, of hours), setting a fixed target (i.e. apprentices must work at least 1000 hours) is not going to be effective. Setting a percentage for the total hours of the project that could be worked on by

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<sup>4</sup> Ibid.

<sup>5</sup> Jin, Hyeongsuk; Manon Langevin; André Lebel and Michael Haan. 2020. <https://www150.statcan.gc.ca/n1/pub/75-006-x/2020001/article/00008-eng.htm>



apprentices is one way to circumvent this limitation. This is the approach used in the United States, and it should be adopted in Canada. While this measure is not perfect (some projects may have insufficient percentage time requirements for skilled tradespeople’s labour to make them eligible for the tax credits), making the use of this percentage measure optional and tying its achievement to a financial incentive will help support increased participation from apprentices on projects with sufficient work hours. This brief does not have insight into the specific percentage of time that should be spent, but recognizes the administrative complexity that would arise from attempting to set targets by apprentice type. Instead, a single percentage target would simplify reporting.

It should be noted that measuring by the amount of labour hours is not the only available metric for assessing workforce participation, but it is the most applicable method for this tax credit. Other indicators are the percentage of employees in a project that are apprentices and the turnover ratio for apprentices. Both of these methods have challenges. With the former, it might not be possible to measure the active contribution of apprentices, which is a critical component to ensuring that apprenticeships get the experience needed to meet credentialing requirements. This is more of a “butts-in-seats” metric than one that measures participation in, or contribution to, a project. With the latter, a calculation on eligibility within the tax credit might measure employers on factors driving high turnover rates that are out of their control, such as industry norms and regional factors. Another alternative might be wages paid to apprentices as a percentage of all payroll costs of a project. This might also help in measuring the contribution of apprentices to a project, but similarly does not offer insight into how much apprentices are contributing to the work, which is ultimately a critical metric for supporting certification in the skilled trades.

## **What effects could requirements for paying prevailing wages and creating apprenticeship opportunities have on clean technology and clean hydrogen investment projects?**

The biggest advantage requiring these labour conditions could have for clean technology and clean hydrogen projects is that it could make them more competitive in attracting and retaining the skilled labour needed to build projects. Going forward, labour shortages are expected to worsen in key occupations – such as Electricians, Industrial Mechanics, Welders, Pipefitters, and Gasfitters – as a result of retirement.<sup>6</sup> At the same time, employers struggle with attracting younger workers to work in these trades. This leaves businesses with a shortage of required labour. Going forward, this will be a bottleneck for business activity as businesses will struggle to find the required labour to undertake these projects. Ensuring that projects offer prevailing wages and employment opportunities for apprentices can help make these projects more attractive to skilled workers, who have many options for projects in front of them if they are interested in working. By supporting employers in creating the necessary conditions to attract the necessary workforce through the prevailing wage and apprenticeship requirements, this

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<sup>6</sup> Hufnagel-Smith, Pat. (2022). Assessing the Workforce Required to Advance Canada’s Hydrogen Economy. Transition Accelerator Reports Vol. 4, Issue 4, Pg. 1-45. <https://transitionaccelerator.ca/assessing-the-workforce-required-to-advance-canadashydrogen-economy>.



bottleneck to greater investment in clean technologies can be removed. This will also contribute to the timely completion of these projects.

## What effects could conditions for paying prevailing wages and creating apprenticeship opportunities have on workers?

Tying investment tax credits to prevailing wages and apprentice contributions could be helpful for workers for a number of reasons. The first is that use of a financial tool that offers financial support and incentive to adjust practices could help increase completion rates for apprenticeship programmes. Over the course of years, Canada has experienced a low and delayed apprenticeship completion rate.<sup>7</sup> Factors identified as affecting the probability of completion include wages and benefits offered by employers, the apprentice's previous work experience, and the compatibility of the work being performed with the apprentice's trade.<sup>8</sup> Apprentices who drop out of a certification or change their employment cite unstable work hours, financial constraints, and better pay being offered elsewhere as the main reasons for dropping out of certification.<sup>9</sup> Therefore, tying apprentice employment to employer tax credits through an eligibility mechanism that would give employers more funding, offers an incentive for employers to attract and retain more apprentices while creating more employment opportunities for apprentices at job sites. This also could lead to the creation of better working conditions for apprentices and in turn, could address the issue of apprentices dropping out or being poached by other employers. This is especially important in light of StatsCan data showing that apprentices working in fields closely related to their trades were likelier to earn their certificates than those working in less related fields.<sup>10</sup>

Second, offering an incentive tied to apprentice training and prevailing wage requirements could help resolve challenges around employers being hesitant to hire younger, less skilled employees. Employers' cited concerns about hiring younger workers include younger workers being poached, employers' lack of knowledge around hiring an apprentice and the time that qualified tradespeople need to spend supervising younger employees (which takes the qualified tradespeople away from their other tasks).<sup>11</sup> As such, offering a financial incentive could make hiring apprentices more attractive to employers and provide greater opportunities for workers.

Third, the labour conditions could offer employees a number of other opportunities. One is additional job security and reduced risk of unemployment when financial shocks occur, as employers would want to claim the tax credits that come with hiring trade apprentices. For example, our skills research work has identified that many auto trades apprentices – especially those at Level 1 – in Ontario lost their jobs and experienced subsequent difficulties in completing their training as a result of the pandemic. These labour conditions also may provide the apprentices with a chance to get mentors in their desired fields, which

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<sup>7</sup> Hyeongsuk; Manon Langevin; André Lebel and Michael Haan. 2020. <https://www150.statcan.gc.ca/n1/pub/75-006-x/2020001/article/00008-eng.htm>

<sup>8</sup> Ibid.

<sup>9</sup> Kristyn Frank, Emily Jovic. 2017. "National Apprenticeship Survey (NAS - 2015) Overview Report." March. Statistics Canada Catalogue no. 81-598-X. [Canada Overview Report 2015 \(statcan.gc.ca\)](https://www150.statcan.gc.ca/n1/pub/75-006-x/2020001/article/00008-eng.htm)

<sup>10</sup> Jin, Hyeongsuk; Manon Langevin; André Lebel and Michael Haan. 2020. <https://www150.statcan.gc.ca/n1/pub/75-006-x/2020001/article/00008-eng.htm>

<sup>11</sup> Strategies to Increase Employer Participation in Apprenticeship Training in Canada, CAF-FCA, July 2008.



has been shown to have positive impacts on, and associations with, mentees' prospects and outcomes (both career and non-career).<sup>12</sup>

Finally, paying prevailing wages also might be an encouraging sign for workers with transferable skills across sectors, and could therefore have positive impacts on wages beyond a single sector or project. In PLACE's work on workforce and skills needs across Canada's Zero Emissions Vehicle (ZEV) manufacturing & supply chain, battery pack manufacturers noted their preference for hiring workers with previous assembly plant experience because of the transferable skills. In an environment where sectors compete for talent, greater use of prevailing wages might help further encourage workers to make the switch into cleantech roles/manufacturing, while also making it easier for employers to attract them, given that wages will be more competitive. It also may have a spillover effect of encouraging employers in industries where these plant workers may be leaving (such as Food Processors in some provinces) to raise their wages to keep their workers from making the switch to the eligible cleantech employers, thereby improving workers' economic outlook across multiple sectors.

### **Are there certain occupations that the prevailing wage or apprenticeship conditions should (or should not) apply to (such as, in the case of apprentices, the 54 designated Red Seal trades)?**

The production and utilization of clean technology and clean hydrogen products requires a skilled workforce, particularly from the skilled trades.<sup>13</sup> Going forward, it is important to focus on occupations that are not only critical for the completion of clean technology and clean hydrogen projects, but can produce a new cohort of skilled labour that can fill future labour demands. PLACE does not believe there are occupations that should be ineligible for the incentives offered, including all those eligible for Red Seal Certification. Occupations that are designated Red Seal trades should be eligible for three reasons. The first is that Red Seal trades currently make up approximately 80% of apprentices in Canada. The second and third reasons focus on supporting career prospects and interprovincial labour mobility. Designated Red Seal trades are associated with higher completion rates, which in turn lead to higher wages.<sup>14</sup> Given that the objective of this incentive is to support greater workforce participation from apprentices (and, further on, greater enrollment in skilled trades programmes), these occupations should be included. Additionally, inclusion of Red Seal designated trades would support inter-provincial workforce mobility, a critical need as specialized projects are advanced across the country in an age of workforce shortages. Since Red Seal occupations are accepted in provinces and territories across Canada, it will ensure the future mobility of labour which might help in preempting future labour shortages through increased geographical mobility of labour. This can help support the development of

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<sup>12</sup> Lillian T. Eby, Tammy D. Allen, Sarah C. Evans, Thomas Ng, David L. DuBois, "Does mentoring matter? A multidisciplinary meta-analysis comparing mentored and non-mentored individuals."

*Journal of Vocational Behavior*. Volume 72, Issue 2, 2008. Pages 254-267. <https://doi.org/10.1016/j.jvb.2007.04.005>; Church-Duplessis, V., Hackett, C., Rae, J., & Basharat, S. (2021, May). *Mapping the mentoring gap: The State of Mentoring in Canada*. Mentor Canada. <https://www.mentoringcanada.ca/en/state-of-mentoring/national-youth-mentoring-survey>

<sup>13</sup> *Green Collar Jobs: The skills revolution Canada needs to reach Net Zero*.

<sup>14</sup> Jin, Hyeongsuk; Manon Langevin; André Lebel and Michael Haan. 2020. <https://www150.statcan.gc.ca/n1/pub/75-006-x/2020001/article/00008-eng.htm>



projects in need of skilled trades people such as Construction Electricians, Industrial Mechanics, and Machinists, three Red Seal designated occupations critical for building many clean economy projects.<sup>15</sup>

## **Employers would need to be able to demonstrate compliance with the labour conditions. What considerations should be taken into account in this respect when designing the conditions?**

As specified in this brief, employers will be required to keep track of a number of things to demonstrate compliance with the labour conditions of cleantech and hydrogen related tax credits. These ultimately would be subject to provincial labour regulations given that labour is primarily a provincial responsibility and that, in this case, provincial governments would be best placed to understand the kinds of cleantech employers that also best align with their regional economic and/or environmental needs.

Employers will need to ensure that the apprentices they employ are registered apprentices in their respective provinces, which will require due diligence on their part. In the event that employers are unable to find apprentices, they should keep records of their attempts to recruit qualified apprentices – e-mails, formal requests, etc. – to show a good faith attempt at compliance. Employers should be able to show that they have the facilities, senior workers/tradespeople, and equipment to adequately train hired apprentices in the Red Seal trades, in accordance with pre-existing provincial apprentice hiring rules. This also would entail having an appropriate apprentice to journeyperson ratio; ideally, this ratio would be 1:1 to guard against overworking, but may vary depending on the province and trade. Additionally, employers will need to track the total hours worked by apprentices for each project, and report it against the total number of hours worked on the project as a whole, to demonstrate compliance with eligibility requirements. Depending on the compliance period attached to conditions, this tracking and reporting may need to continue for months or years.

Employers also should maintain records to show that apprentice wages are commensurate with the regional/Census Metropolitan Area (CMA) prevailing wage rate. Such records would include, but are not limited to, employee names/numbers, occupation roles and classifications for work done (National Occupation Classifications), hours worked per day, hourly wages, and any additional fringe wages paid for work compensated beyond hourly rates. These would all be in addition to any other measures required by the provincial laws, which may vary by jurisdiction.

Compliance with the conditions could be assessed yearly for congruence with business' tax filings to ensure that employers are not taking advantage of the conditions and their apprentices. Operationally, the tracking and reporting could be done using similar applicant or employee management systems as those already used to report payroll hours and taxes. This would help simplify reporting processes for businesses and encourage both compliance and reporting by reducing the amount of new or extra work businesses would have to do. Doing this may require more coordination between the Department of Finance and the Canadian Revenue Agency (CRA) to streamline business compliance and documentation

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<sup>15</sup> [Jobs and skills in the transition to a net-zero economy: A foresight exercise.](#)



and reduce red tape, which may become disincentives for cleantech employers if they become too time-consuming to undertake.

## **In certain situations, an employer could subcontract work to be performed. Are there specific limitations in applying labour conditions to a subcontractor?**

The major limitation is that employers/businesses have different responsibilities to an employee than they do a (sub)contractor. A (sub)contractor would be categorized as self-employed and would not be a direct employee of the hiring cleantech employer receiving the credit. This means that a (sub)contractor would not be entitled to the same benefits and protections an employee/apprentice would be entitled to, which could include union membership, access to work benefits, and other terms of employment. As such, applying these conditions for this tax credit to (sub)contractors may clash with existing provincial rules differentiating employees and contractors.

Applying these conditions to (sub)contractors also may encourage employers/businesses to look for contractors instead of direct employees. While the prevailing wages would guarantee decent and fair hourly wages, other terms of employment (sick days, paid leave etc.) may not be as favourable for the contractor as they would if they were a direct employee. This may, in turn, contribute to a feeling of job instability/insecurity, which is a documented reason for apprentices taking longer to finish or not finishing their programmes. Given this risk, extension of these criteria could be counterproductive to increasing attraction and retention of new skilled tradespeople.

Mandating that labour conditions for this tax credit also applies to (sub)contractors would be beneficial for (sub)contractors, as it allows them to have some of the same protections as employees, and ensures the employers are held to the same standards for both worker categories (contractors and employees). It may however, cause friction with labour unions as union membership in the trades offers some similar protections to those that may be guaranteed by the tax credit and its conditions (such as having a certain percentage of work performed by apprentices). It also may negatively affect future union membership for incoming apprentices, as they may not want to join a union if they perceive or feel they get the same coverage without one. These factors are critical for ensuring that projects get completed on time and should be considered by policymakers.

## **Conclusion**

Investment Tax Credits (ImTCs) for clean technology and clean hydrogen projects can help improve labour conditions, if effectively designed. This response outlines the design elements and scope that should be incorporated into prevailing wage requirements and apprenticeship rules attached to ImTCs to ensure workers are supported as these projects advance. The federal government should adopt these requirements to ensure that workers are fairly compensated and that eligible projects are made more competitive by attracting the necessary skilled workforce, two critical components of growing the clean economy workforce going forward. Additionally, accessing these additional incentives should be made





as simple as possible to avoid creating additional administrative hurdles that could limit the uptake of tax incentives or dissuade companies from taking actions to improve the conditions for their workforce.

