

# Hydrogen Production Tax Incentive

On behalf of Climate Impact Corporation

In providing these comments it is important to note that CIC has not applied for any of the programs offered to the Australian or State or Territory Government and has pursued its project on a purely commercial basis. Neither does CIC have existing carbon emitting assets that it needs to protect.

CIC considers its investments and projects purely on their merits.

We are keen to work closely with Government to position Australia as a leader in the renewable hydrogen sector and provide the following comments as an investor and project proponent.

## **1. Please provide any feedback on the impact this incentive may have on your community, facility or industry.**

- This incentive will enable CIC to more effectively compare its investment opportunities globally and bring its proposed Australian projects into a more favourable position when compared to others.
- CIC considers that it is important to design the incentive to focus on projects that can be commercial and not subsidise poorly considered projects.
- As the program stands, it doesn't appear to sufficiently incentivise innovation, which risks supporting projects that will quickly become commercially uncompetitive and potentially stranded assets

## **2. Please provide any feedback on the proposed eligibility criteria.**

- This definition needs to be conceived in such a way as to not disadvantage modular designs, where each module may be based on electrolysers of less than 10MW capacity, but where the modules are aggregated to significantly above this threshold
  - o This is the case with two proposed CIC projects in Australia. These projects are each proposed at a total of 10 GW each but are based on modules that are designed around 5 MW electrolysers.
- The criteria may make it more difficult to justify new investment in upgrading or expanding existing plants, as opposed to new facilities.
  - o For example, if a plant begins production in 2027, and then substantially expands in 2030, the capital expenditure on the expansion will only be able to claim the incentive on seven, rather than ten years.

### **3. What key factors would need to be accounted for in a definition of an eligible facility for the purposes of the HPTI?**

- As stated in response to question 2, the definition should be such that projects that utilise numerous modules across one facility are counted as one site. CIC's 2 projects proposed for Australia amount to 10 GW each but are based on a modular structure, with each module centred on a 5 MW electrolyser.
- This program should not incentivise projects that contribute to further environmental damage while seeking to address decarbonisation e.g. the source of water which the project might use

### **4. What key factors would need to be accounted for in a definition of Final Investment Decision (FID) for the purposes of the HPTI?**

- Demonstration that a project has the potential to be commercially viable without subsidy during the life of the HPTI – non commercial projects should not receive subsidies
- Demonstration that the water used in the production of hydrogen will not contribute to environment degradation – decarbonisation should not be considered in isolation from other forms of environmental degradation
- Demonstration that Governments don't need to provide substantial infrastructure to support the project in addition to supports such as the HPTI
- The carbon intensity of the hydrogen should reflect the aggregate of the supply chain

### **5. How long do you expect it will take for projects to reach first production following FID?**

- CIC intends to have its first modules producing hydrogen the 1<sup>st</sup> quarter of 2026, which will be 12 months after FID

### **6. For foreign investors, do you currently encounter any impediments to investment in projects that would be eligible?**

- CIC's founders are Australian so we are familiar with the business environment in Australia but foreign investors generally consider Australia to be a difficult country in which to do business in this space.
- The lack of policy coordination between State and Federal governments, lack of a single point of contact for approvals, and a generally, relatively long approval time hurt Australia's perception as an attractive investment destination.
- In addition, it is difficult to gain a sufficient understanding of Australia's government support systems, it is hard to know what grants are available, where to apply for them, and how to do so

**7. Please provide any feedback on the proposed emissions intensity threshold of 0.6kg of carbon dioxide equivalent up to the production gate.**

- The threshold needs to have regard to the carbon intensity of the supply chain not just the production process.
- The carbon dioxide threshold needs to be at a level that excludes any energy supplied from carbon-based fuels.
- Any grid-connected project in Australia should not be considered unless the grid they are connected to has a threshold below a level which in aggregate as part of the supply is below 0.6kg of carbon dioxide.

**8. Other than electrolysis, what production processes would meet this emissions intensity threshold now or before 2030?**

- It is not just a matter of the use of electrolysis or otherwise. The energy used in the process of producing hydrogen must be totally renewable.
- Innovation in renewable hydrogen generation is driven not just by using new technology, but by using existing technology in innovative ways or applications. Incentives such as this should provide support for innovation in a way that ensures such developments are accurately counted and supported.

**9. Please provide feedback on the proposed minimum capacity requirement (equivalent to 10 MW electrolyser)?**

- Green Springs, for example, uses modules with electrolysers with capacity between 2.5MW and 5MW, for a total of 10GW of generation. The definition of this capacity should be broad enough to allow for a modular design.
- Please also see responses to questions 2 and 3

**10. For renewable production processes other than electrolysis, is using the minimum capacity requirement of “equivalent to a 10MW electrolyser” appropriate? Is another definition of capacity required to deal with other production pathways?**

- Hydrogen production capacity, as well as its comparison to electrolysis would be better expressed in terms of kg per hour, rather than the amount of power an equivalent electrolyser would consume.
- The incentive should aim to reduce electricity use per kg of hydrogen produced.

**11. Should grid connected electrolyser projects be required to match their hydrogen production with electricity generated by the same electricity grid? Please provide feedback on this proposal.**

- Yes, grid connected projects risk destabilising the grid they are connected to, or causing additional grid augmentation expenditure as a result of their connection

- Grids in Australia aren't sufficiently low in their carbon intensity to be considered as the primary supplier of electricity to renewable hydrogen projects. This may change over time.
- The fact that a hydrogen project may have contracted for the supply of green electricity does not necessarily mean the grid carbon intensity reduces.

**12. Please provide feedback on the proposal to not include additional requirements on renewable energy generation for access to the incentive, such as additionality and hourly time-matching with hydrogen production.**

- Please see response to question 11, grid connected projects should not shift costs of their operation to others connected to the grid
- a fundamental premise of the NEM design was the causer pays principle. If a hydrogen project connected to the grid creates issues with the grid, the project should bear the costs. To remain consistent with this principle, additionality and hourly time matching should apply.

**13. Please provide any feedback on the proposed administrative approach.**

- To the greatest extent possible, there should be a single point of contact with regulators

**14. The proposed GO scheme will be used to support the registration and verification of hydrogen production. Are there any additional factors that would need to be accounted for in the proposed design of that scheme**

- The incentive and its operation should be consistent with G7 definitions of carbon intensity and align with the direction that work is taking

**15. The Government may legislate the administrative arrangements in subordinate legislation. Please provide any feedback on this proposed approach.**

- CIC is comfortable with this approach provided regulatory contact remains simple and administrative burden remains acceptably low

**16. What obligations should be imposed on potential recipients of the HPTI to ensure the community benefit principles are met?**

- Energy projects must be required to clearly show engagement with traditional owners and local communities, and provide measurable targets for outcomes for community benefit.
- Wherever possible, these targets should be agreed between the project proponent and the community, rather than defined by government, in order to better satisfy the wants and needs of the relevant community.

**17. What obligations are potential recipients of the HPTI currently subject to that might support the community benefit objectives (noting these will be finalised under the Future Made in Australia Act)?**

**18. Are there any additional objectives that you consider important? What obligations might support these?**

- Government support needs to not just encourage production, but also support innovation that improves production efficiency.
- Incentives that are structured in a way that does not sufficiently incentivise innovation (particularly by providing overly generous thresholds for inefficient or fossil hydrogen technology) may act as an unintentional disincentive to innovate. Production credits should incentivise:
  - o 100% renewable hydrogen production
  - o Production that is off-grid, unless the grid is 100% renewable and carbon neutral
  - o Production should not rely on desalination, groundwater, or other sources of water that create environmental stressors or negatively impact on communities
  - o Production methodologies that are flexible and adaptable

**19. Recipients of the HPTI may be subject to additional transparency and disclosure requirements in order to be eligible. What kind of requirements are appropriate? What are the key practical considerations to take into account when setting the requirements?**

- Some these matters are discussed above
- Fundamentally, the race to produce green hydrogen at \$2/kg is highly competitive. At the heart of this competition is technological advancement, and therefore intellectual property.
- Requiring proponents to make their intellectual property available to the market, as is the case with the ARENA funding process, presents a barrier to attracting innovation to Australia.

**20. How should entities proposing to claim the HPTI be required to demonstrate compliance with tax obligations?**

- CIC considers that the design of the reporting regime is fundamentally about the balance of efficiency of process, and fulfillment of community needs.
- The reporting requirements should be combined with a reporting regime on performance against community obligations. One without the other is only a partial indicator of the benefit of the governments support.

**21. What information do you consider important for the community that should be reported publicly on the recipients of the HPTI such as the amount of credit received?**

- The Green Bond Principles offer a good guide for reporting and monitoring objectives, see link: [Green Bond Principles » ICMA \(icmagroup.org\)](https://www.icmagroup.org/green-bond-principles/)

**22. Who should the reporting requirements be imposed on? For example, on the recipient entity, or central reporting through a regulator?**

- To the greatest extent possible, the regulator should bear the reporting requirements, insofar as it would reduce the administrative requirements on the recipient entity
- It will be necessary for the recipient entity to provide some information, however this should be as streamlined as possible to reduce workload and expenditure

**23. Please provide feedback on the proposed treatment of the interactions between the HPTI and other forms of Commonwealth, State or foreign government support.**

- Interactions should be coordinated at the government level, rather than requiring producers to coordinate activities with multiple government agencies.
- Improved information sharing between levels of government would greatly reduce double handling of information.

**24. How can the HPTI best leverage other types of support? Please provide examples relevant to your project if possible.**

- Programs need to be coordinated by government through a single channel. Reducing the number of contact points make engaging with government easier, and improve value for money, both for proponents and for government

**25. What are the key practical considerations with receiving support through the HPTI and the Hydrogen Headstart program simultaneously?**

**26. Are there specific interactions with other support programs that should be considered?**

- Improving coordination and communication between agencies and programs, especially when programs are delivered across Federal and State levels will allow government to more effectively support the communities where these projects are located, and thereby ensure a more equitable energy transition