

CONSULTATION RESPONSE

H2 Global – Market
Consultation: Products,
Quantities, Criteria

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Consultation response

H2 Global – Ramping up global renewable hydrogen production to secure imports for Germany

Bellona welcomes the ongoing efforts by countries to decarbonise and displace unabated fossil fuel use through new technologies, energy systems and carriers. Hydrogen undoubtedly has a key role to play in these efforts. As an energy vector, rather than a source, however, renewable hydrogen is reliant on immense amounts of renewable electricity to approximate the supply needed for a successful and rapid transformation. Bellona, therefore, firmly believes that in the medium-term, hydrogen applications should be as limited as possible, to those that cannot be directly electrified or have no other means for climate mitigation.

Nevertheless, access to plentiful and therefore cheap renewable electricity has become an incredibly valuable commodity. For industrial countries with high energy demand and population density, such as Germany, relying on imports of hydrogen is a certainty. Building out a global hydrogen network and investing in its development across the globe has therefore become an important aspect for domestic climate action to ensure both security of access and commerciality. Given the nature of H2Global – to utilise resources that are more abundant in other countries for the decarbonisation of one's own economy – the adherence to Sustainable Development principles and Goals (SDGs) are crucial to ensure access to a just transition to all the parties involved.

Hence, associated efforts, particularly in vulnerable emerging and developing economies, need to be carefully planned, regulated and implemented. Given possibly poorer governance structures in some of the target regions, projects like H2Global have a duty to ensure no unfair exploitation of resources takes place, opportunities and benefits for local communities are created, and the products achieve a real climate benefit both domestic and abroad by adhering to enforced minimum climate standards.

Unfortunately, the provided information as part of the current Market Consultation remains too vague to build trust that H2Global won't undermine key SDGs and global climate action.

Positive aspects of the presented plans for H2Global

- The H2Global Mechanism follows the requirements set out in the EU's Renewable Energy Directive Delegated Acts (DAs) on the production of renewable liquid and gaseous transport fuels of non-biological origin and methodology for assessing greenhouse gas emissions savings from renewable liquid and gaseous transport fuels of non-biological origin. These DAs include requirements around additionality, temporal and geographic correlation as key conditions to ensure hydrogen is produced in a sustainable and actual low carbon way.

Shortcomings and questions regarding the current plans

- There is generally limited detailed information available.
- The Delegated Acts include a transitional period and grandfathering clause: it is unclear how this is to be addressed in the context of H2Global. This clause can be especially problematic in countries where the population does not have access to electricity or is subject to frequent black outs due to electricity

scarcity and poorly developed grid infrastructure. Cannibalising renewable energy that could be used to remedy these structural issues as well as support the decarbonisation of the grid in favour of hydrogen production to be used abroad would be severely problematic. This relates to the fundamental implementation of the Paris Agreement and the SDGs to which H2Global subscribes. Given that "Bidders must explain how the project supports the implementation of the Paris Agreement and the UN SDGs in the respective partner country, e.g. with regard to expected CO₂ savings on site", it should be expected that any H2Global project has a positive impact on the local grid by decreasing the overall carbon intensity. **Can you provide conditions for H2Global projects deployed in regions with poor access/high carbon electricity, and plans how H2Global will help in overcoming these challenges?**

- Once produced, it is impossible to distinguish a renewable hydrogen molecule from a fossil-based one. Ensuring that hydrogen production fulfils the criteria and conditions of the DAs requires monitoring, verification and certification systems in place. **Can you provide additional information how such a monitoring and certification system is to be implemented/enforced to ensure that H₂ produced outside of the EU still adheres to EU rules?**
- The key to utilising hydrogen in Germany that has been produced across the globe is the provision of transport means. This can include pipelines and ships, though both would need to be provided as part of the H2Global build out. Yet, there appears to be no information on any transport modes available as part of the Market Consultation. Emissions associated with the transport and storage of hydrogen needs to be included in the 70% GHG reduction benchmark. **Can you provide more detail on the planned modes of transport and their delivery, as well as the associated emission accounting?**
- Physical delivery of green hydrogen is imperative. A global 'guarantees of origin' scheme for renewable hydrogen produced abroad that is used to greenwash high-carbon intensity hydrogen produced at home would be detrimental to the domestic energy transition (see: <https://bellona.org/publication/will-hydrogen-cannibalise-the-energiewende>) and global climate efforts. **Can you confirm that no such scheme is planned and H2Global solely relies on the physical delivery of renewable hydrogen from abroad?**
- The project also includes the possibility of combining hydrogen with CO₂. Counting the reused CO₂ in one of the sectors, either at the capture point or the use point, is crucial to avoid the double counting of emission reductions from synthetic hydrocarbon fuels. The delegated act ensures that fossil CO₂ coming from the ETS is accounted for, but that principle is not applicable to regions that are outside of the EU ETS. Therefore, additional criteria must be developed to ensure that the emission reduction is not double counted, in line with the principles outlined in the Renewable Energy Directive and its Delegated Acts. **Can you please provide additional information to the effect of preventing double counting of CO₂ ?**
- Hydrogen production is not merely an energy but also a water intensive process. Many regions with high renewable and therefore hydrogen production potential are suffering from drought and desertification. Desalination needed to provide the key feedstock to the hydrogen production must be carried out with renewable energy and residues should be handled sustainably. Current standards presented by H2Global fall short in terms of benefits for local communities and climate (through reversing desertification) from others, such

as the GH2 one (see: https://gh2.org/sites/default/files/2022-05/GH2_Standard_2022_A5_11%20May%202022_FINAL_REF%20ONLY%20%281%29.pdf) that says

- *The project operator must demonstrate that it has identified and implemented technically and financially feasible and cost-effective measures for improving efficiency in its consumption of water, particularly in risks associated with water access and water stress. This could also include an assessment of opportunities to generate co-benefits for local communities through provision of drinking water, water for irrigation, and /or water treatment.*
- General remarks on local value creation currently do not translate into a clear implementation strategy. Statements are limited making sure local and civil law actors are participating and gaining skills and the fact that women must be involved. Local value creation should go beyond this by, for instance, ensuring the already mentioned access to electricity and water, but could also include local content requirements, ownership strategies and ways to prevent technical expertise drain after the completion of the project. **Can you provide a more detailed approach on how true local value is to be created?**

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