

International Project of Common European Interest (IPCEI) in the Hydrogen Value Chain

Call for application

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1. Setting

The Portuguese Government is fully committed to the national and European Hydrogen policies, in order to focus on Hydrogen as a strategic priority, whilst contributing towards the creation of a global Hydrogen market and becoming an exporter country. As with all other renewable gases, which make significant contributions towards fulfilling the targets set forth in the Plano Nacional de Energia e Clima 2021-2030 (henceforth, PNEC 2030), the national plan for energy and climate, green hydrogen is a particular priority in the newly announce European Green Deal.

The European Commission is launching an Important Projects of Common European Interest (IPCEI) initiative aimed at supporting the development of a green hydrogen industrial value chain. IPCEIs allow for the gathering of knowledge and expertise, financial resources and stakeholders from across the EU in order to overcome relevant market or systemic deficiencies and societal challenges, which could not otherwise be met. Its target is to bring together the public and private sectors and boost the development of highly innovative large-scale projects, which in turn bring significant benefits to the Union and its citizens.

IPCEI projects must comply with the European Commission's Communication 2014/C 188/2, which provides Member-States with specific and transdisciplinary guidelines targeted at incentivizing the development of IPCEIs, setting criteria for the analysis of the compatibility of state aid with the internal market. That communication namely sets forth the following cumulative criterion, which a project must comply with for eligibility for an IPCEI:

- The project must contribute in a concrete, clear and identifiable manner to one or more Union objectives and must have a significant impact on competitiveness of the Union, sustainable growth, addressing societal challenges or value creation across the Union;
- The project must represent an important contribution to the Union's objectives, for instance by being of major importance for the Europe 2020 strategy, the European Research Area, the Energy Strategy for Europe, among others;
- The project must normally involve more than one Member State (18) and its benefits must not be confined to the financing Member States, but extend to a wide part of the Union;

- The benefits of the project must not be limited to the undertakings or to the sector concerned but must be of wider relevance and application to the European economy or society through positive spillover effects;
- The project must involve co-financing by the beneficiary;
- The project must respect the principle of the phasing out of environmental harmful subsidies.

2. Official call for application

The national green hydrogen production project, a part of the National Hydrogen Strategy (henceforth, EN-H2), is an industrial plant site at Sines targeted at the production of green hydrogen with an electrolyser accrued power of at least 1 GW in 2030, powered by renewable solar and wind electricity generation. The intent is on simultaneously integrating industrial-scale production, processing, storage and transport, both for internal consumption and export through shipping, based on national and European strategic partnerships. Operationally, the project is to have its first electrolysers running in 2022. In this context, the Sines green hydrogen project has a potential to be classified as an IPCEI, an ambition of the Portuguese Government.

In this context it is relevant to take into account that the European Commission may find an “integrated project” eligible, i.e. a grouping of individual projects within a common framework or a program which sets common goals. Individual projects may relate to different parts of the supply chain; however, they must always be complementary between themselves and necessary for the fulfilment of the common European interest.

With this call for application, the Portuguese authorities are taking a proactive approach in building their best application for the future Hydrogen IPCEI. Given both the interest that the Sines anchor project has generated within the community and the breadth of EN-H2, several other projects for this value chain would be welcome to apply and join the IPCEI efforts, provided they are coherent with the national and European strategy, namely:

- a) Integrated projects, taking up most of the hydrogen value chain, a differentiating factor;
- b) Production and consumption of green hydrogen, specially focusing on their innovative characteristics, both for national (first priority) and export (whenever possible) needs, on the possibility of decentralized production and consumption, benefitting from the market liquidity the Sines project allows and taking advantage of the pre-existing gas infrastructures, and / or on increased R&D&I value, with performance and production cost gains;
- c) Integration on a European-wide integrated supply chain, namely in what regards export, such as maritime shipping, intake and storage, logistics and international off taking (the project aims to include the increased production capacity through Sines but also the implementation of infrastructures which would allow the transformation into liquid hydrogen [LH2], organic liquid hydrogen [LOHC] and green ammonia [NH3]), including a significant innovation and industrialization component;
- d) Implementation of a collaborative laboratory (CoLab), a relevant part for the success of the national strategy;
- e) Within the broad spectrum of new R&D perspectives, hydrogen production from salt water is highlighted as one to receive stimulus, supporting the experimental

development of proof of concept projects targeted at their future commercial endeavours.

The preliminary structure of the Sines project is available within the EN-H2, at: <https://participa.pt/pt/consulta/en-h2-estrategia-nacional-para-o-hidrogenio>.

3. IPCEI General terms

- Applicable regulations are set in the European Commission's Communication 2014/C 188/2;
- R&D&I projects must have innovative characteristics or bring a relevant R&D&I added value, necessarily concerning the state of the art in each sector;
- R&D&I projects which include industrial production must allow for the development of a new project of service with significant investigation and innovation components and / or the development of a radically innovative productive process. Ordinary updates to pre-existing sites, with no innovative significance, and the development of new versions of pre-existing products do not qualify as an IPCEI.
- Environment, Energy or Transportation sector projects must have significant relevance for their respective European strategies, including security of the energy supply, or have significant contributions towards the internal market.
- Support may only be granted to projects bearing market failures and significant technological or financial risk that would make it unfeasible without such support. This should be adequately justified.
- Grantees should take part in the funding of the proposed project.
- Projects may be funded by other applicable European funds, which may be combined for the considerable reduction of production costs.
- Relevant cooperative dynamics within the European Union should exist.
- The projects should be developed in cooperation with other companies; attendance of IPCEI coordination meetings, at Brussels or other cities, must be ensured. Demonstration that the project can be integrated and complemented by other levels of the value chain must be achieved.
- Those involved in the projects must commit to allow the spillover effects of the funded works not only towards their clients, suppliers and partners but also throughout the EU. IPCEIs must allow for large scale dissemination of acquired knowledge, bearing additional relevance and applicability in the European economy and society through clearly identifiable positive effects within the hydrogen value chain, the internal market or in its use by other sectors.
- IPCEI participants must not be under strain, as defined under the appropriate European Commission Directives, whenever the decision on any aid is taken.
- The Portuguese and European companies admitted to the IPCEI should, in the preparation phases, be available to provide a document, whenever appropriate, which justifies the need for a Hydrogen IPCEI. This process may involve its revision and approval by the European Commission as a condition precedent to the IPCEI's launch.
- Entities should be validly constituted under their respective laws and not be subject to any judicial orders for the recovery of an illegal or incompatible aid in the context of a decision of the European Commission.

- Projects must follow a notification process before the European Commission leads the coordination between Member-States. The Commission will take into account how each project is appropriate in the IPCEI context. Final IPCEI participation does not necessarily imply any financial aid being granted.

4. Specific terms

- Proposed projects must be relevant for the development of a green hydrogen industrial value chain within the EU and for its economic contribution towards the EU. This should be duly justified.
- Regarding the potential of the IPCEI application it is relevant that investment values are estimated and critical component factors of the value chain are identified, albeit not at the detail required for final project proposals. Funding gap analysis should be conducted, as it constitutes the basis for the calculation of the maximum allowed state aid for IPCEI projects. The needs for state aid should be set in the most realistic manner possible and duly justified.
- This call is targeted at Portuguese or European entities and companies whose proposed projects bring added value to Portugal, namely through incorporation or headquartering in Portugal or through job creation.
- Equivalent CO₂ reductions of a project are a fundamental criterion for comparability.
- Portugal intends on taking part of the first European-wide Hydrogen IPCEI in 2020 and that its first electrolyzers are in operation in 2022. Project maturity and the ability to execute projects are therefore paramount.
- Interested parties should also state that they have the necessary economic and financial capabilities to develop the proposed project..
- The ratio between innovation content (as defined under point 22 of the European Commission's Communication 2014/C 188/2), i.e. the First Industrial Deployment, versus the contributions towards environmental, energy or transport goals (as defined under point 23 of the European Commission's Communication 2014/C 188/2) must be set.
- Application must be coherent with national and European Hydrogen strategies.
- The Project Admission Committee is composed of:
 - One representative from the Office of the Deputy Minister and Secretary of State and Energy, who coordinates;
 - A representative of the Office of the Minister of State, Economy and Digital Transition;
 - A representative of the Office of the Minister of Science, Technology and Higher Education;
 - A representative of the Office of the Secretary of State for Internationalization;
 - A representative of the Directorate-General for Energy and Geology, with technical support functions;
 - A representative of the National Energy and Geology Laboratory, with technical support functions;
- In the event of admission for the participation in a Hydrogen IPCEI the compliance with the relevant procedures, led by the Member States and the European Commission, is mandatory. As such, no funding is guaranteed by this call.

- The list of interested parties may be also considered for the participation in workgroups and meetings between national and European entities for the construction of the first IPCEI or, if project maturity so advised, later IPCEI efforts.

5. Deadlines

Interested parties should provide their proposed projects, in the provided format, until friday, July 17th, 2020.

Information should be sent by e-mail to gabinete.seaene@maac.gov.pt.

After project admission an *infoday* will be held in the 27th of July, 2020, aimed at clarifying how projects complement eachother.

6. Confidentiality

Parties involved make a commitment to rigorously ensure the confidentiality of any and all documents and information sent as a result of an application related to this call, regardless of admission.