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FRENCH STRATEGY FOR THE DEVELOPMENT OF RENEWABLE AND LOW-CARBON HYDROGEN

French strategy for renewable and low-carbon hydrogen development - 7 bn€ by 2030



2bn€ 2020-2021

Three priorities to reach climate neutrality by 2050

• Industry decarbonation and electrolysis market scale-up (6.5 GW by 2030)

- Scale-up of the water electrolysis industry
- Financial support for large scale electrolysis demonstrators and carry on the small scale electrolyzers deployment
- Set up support schemes to scale up large scale decarbonation projects with OPEX aid

• Clean hydrogen for heavy duty transport applications

- Financial support for industrial projects for the key components of heavy duty transport applications
- Development of important hydrogen heavy vehicles fleet acquisition projects and the development of shared hydrogen refuelling infrastructures at local level through a “Local hydrogen hubs” call for projects

• Support R&D, large scale demonstrators and development of key components for tomorrow’s hydrogen usages

- Implementation of a Priority Research Program for hydrogen applications
- Investments for Future Program call for projects

Action plan

2020

2021

2022

2023



Innovation



Plurennial Research Program

Demonstration and technology bricks Call for projects for Innovative projects (PIA - ADEME)

IPCEI

Deployment



Local hydrogen hubs call for projects (ADEME)

French Energy Regulatory Commission's support scheme for Non-interconnected areas

Incorporation of Biofuels tax exemption

Support mechanism for clean hydrogen (call for tenders)



- Axis 1 - Technological bricks : innovative components and systems
 - Axis 2 - Innovative industrial drivers and networks, temporary or localised energy supply
 - Axis 3 - Design and demonstration of new vehicles
 - Axis 4 - Large electrolysis demonstrators (>20MW)
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- Until 31 December 2022 or exhaustion of funds with an annual revision of the specifications
 - Project carried out by companies alone or in collaboration with a minimum cost of €2M and €5M for axis 4.
 - Selection criteria: quality of the project, eco-conditionality innovation, replicability of the solution, relevance of the business model, socio-economic impacts
 - Investment aid (grants and repayable advances), depending on the nature of the project and the size of the company; this may be supplemented by operating aid from an EU window, for example for electrolyser demonstrator projects
Translated with [www. link: <https://entreprises.ademe.fr/dispositif-aide/20201013/inodemo-h22020-176>](https://www.grammarly.com/)
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Call for Hydrogen Ecosystems in Territories for Industry and mobility (deployment solutions)

The call aims to support, in the territories, supply/demand projects for decarbonized and renewable hydrogen consisting in deploying uses of technologies that have already been demonstrated with the associated H2 production and distribution and pooled infrastructures :



- Projects in industry in particular diffuse industry and valorization of H2 byproduct
- The deployment of H2 uses in the field of mobility and the transport of people and goods.



The aim is to :

- Reduce the impact of sectors (industry/mobility) on climate change
- Develop pooled production/consumption platforms
- Structuring the industrial offer to the rhythm of deployment projects

The project will be supported for CAPEX

Link : <https://entreprises.ademe.fr/dispositif-aide/20201013/ecosysh22020-165>

European Research and Innovation Support Mechanism to :

- promote projects of transnational interest in strategic areas
- support participants at the research stage, also financing the transition of innovations into production.

The IPCEI H2 will aim to support industrialisation in France, in order to lower costs and to have technological sovereignty over this equipment :



➤ New generations of electrolysers (industrialisation and projects)



➤ Key components related to hydrogen mobility

Ongoing exchanges with the other Member States to identify common projects

Call for tender from 2022

8th November 2019 Energy and Climate law

- Sets clean H2 targets in the law for 2023 and 2028
- Empowers the government to issue an ordinance to
 - define hydrogen according to the energy resource used for its production
 - define the legal framework of incentives for hydrogen
- Requests the establishment of guaranties of origin mechanism for renewable hydrogen by decree

Ordinance in the final stages of the procedure – to be published by the end of 2020

- Hydrogen definitions
- Traceability
- **Support mechanism**
- Hydrogen underground storage

Next steps

- Public consultation received, ongoing to draft regulatory texts
- Notification of the scheme to European Commission
- Regulatory framework to be set at regulatory level and preparation of call for tenders



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THANK YOU!

MERCI POUR VOTRE ATTENTION !

Energy transition law



-40% of greenhouse gas emissions
between 1990 and 2030

and **carbon neutrality by 2050**



**Decrease the final energy consumption by -
50%** between 2012 and 2050

And -20% by 2030



-40% of fossil energy consumption by 2030
compared to 2012



In 2030 : **33% renewable**
In the final energy consumption
40% of the power generation,
38% of final heating consumption;
15% of final fuel consumption
and 10% of final gas consumption



Decrease
the share of nuclear to -50% of the power
generation
by 2035