



Liberté Égalité Fraternité

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

E LA TRANSITION

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 electrolysers 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

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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)



Call for Technologics Components and Demonstrators



- > 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)

•Until 31 December 2022 or exhaustion of funds with an annual revision of the specifications

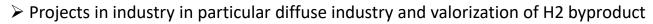
•Project carried out by companies alone or in collaboration with a minimum cost of €2M and €5M for axis 4.

- •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 projectsTranslated with www. link: https://entreprises.ademe.fr/dispositif-aide/20201013/inodemo-h22020-176



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 :



> The deployment of H2 uses in the field of mobility and the transport of people and goods.



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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

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Ongoing exchanges with the other Member States to identify common projects

Call for tender from 2022 DE LA TRANSITION

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 ٠

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

- Hydrogen definitions •
- Traceability •

MINISTÈRE

ÉCOLOGIOUE

- Support mechanism
- Hydrogen underground storage ٠

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 ٠



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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



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



-40% of fossil energy consumption by 2030

compared to 2012

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