



EU GREEN DEAL

**MAKE IT
REAL**

**PARTNER EVENT
#EUGREENWEEK
30 MAY – 5 JUNE 2022**



**Cross-border
cooperation in the
Pyrenees for the
development of a green
hydrogen economy &
adaptation to climate
change**



3rd June 2022





Hydrogen: a vision from Andorra, a third country inside a European cross-border region



Govern d'Andorra

June, 3 2022

Andorra's Climate action

Andorra's climate action are the actions carried out by the government through the Energy and Climate Change Agency (in Catalan, OECC) to respond to energy transition and climate change policies.

The main objectives of this climate action are:



Ensure access to affordable, reliable, sustainable and modern energy.



Make cities and human settlements inclusive, safe, resilient and sustainable.



Take urgent action to combat climate change and its impact.



Revitalize global partnership for sustainable development.



www.mediambient.ad/energia-i-canvi-climatic

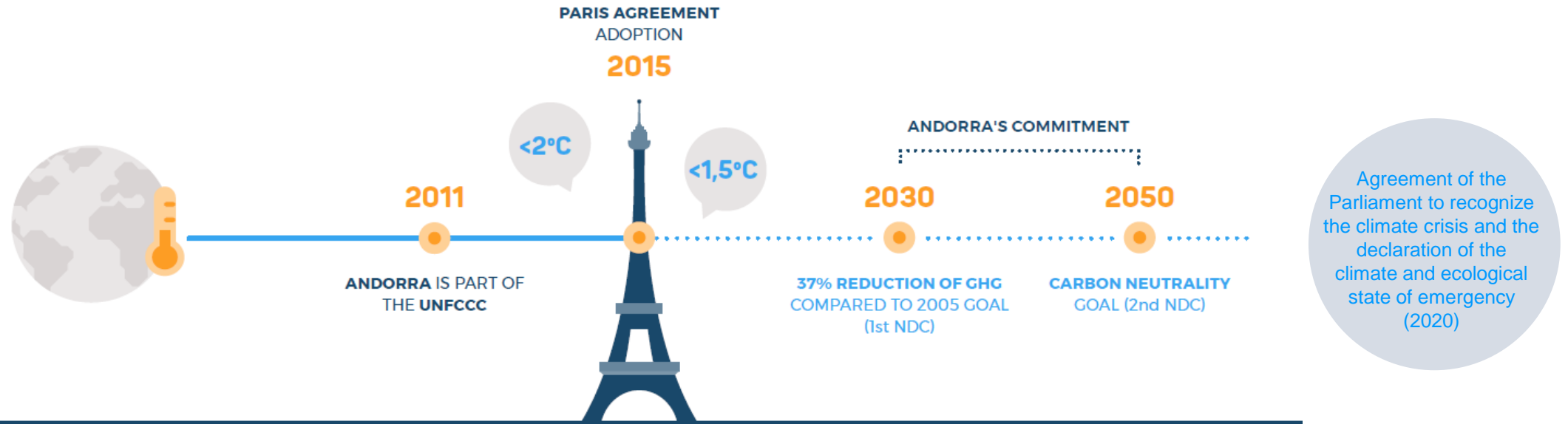


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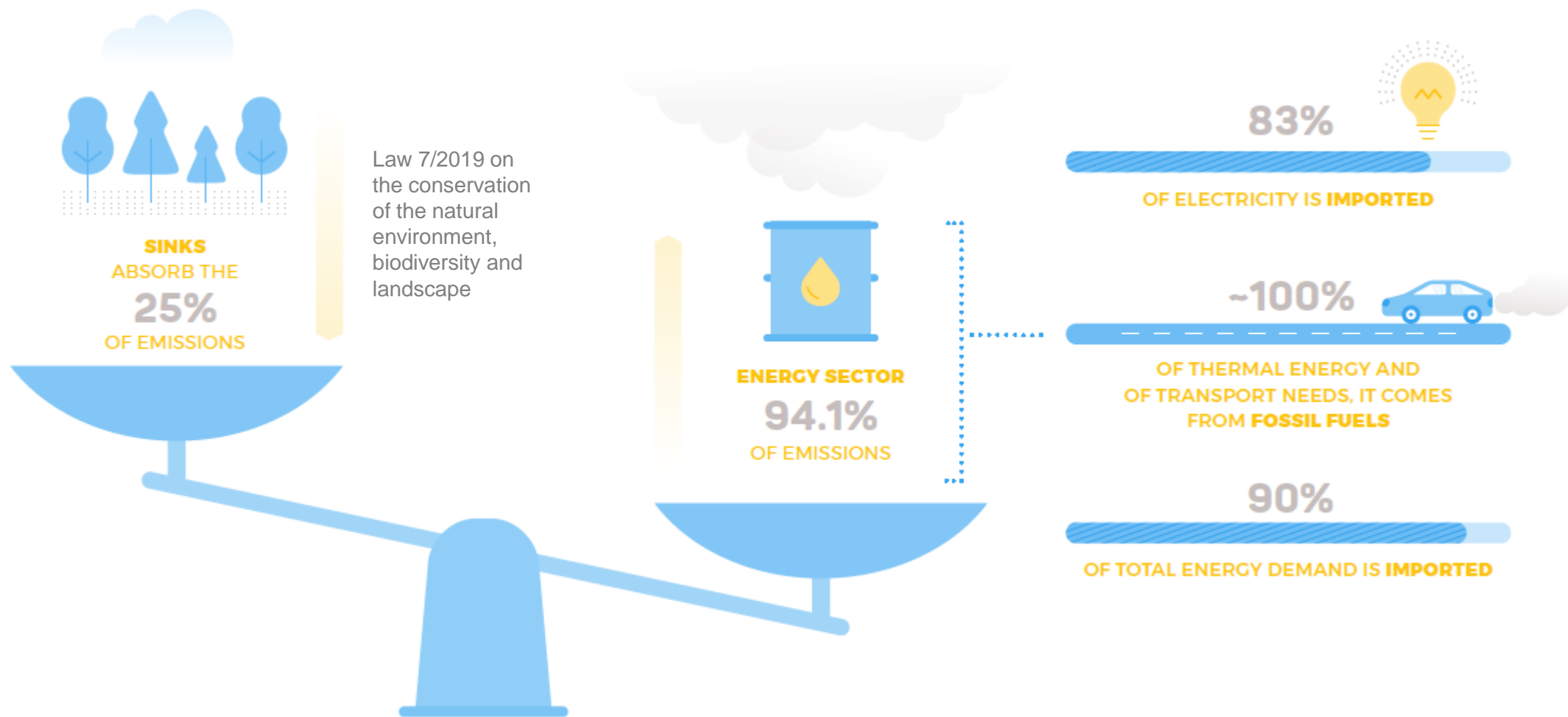
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National and international commitment



This international commitment has been reinforced with the **Long-term Energy and Climate Change Strategy**, becoming the roadmap to achieve carbon neutrality (February 2021) and by the legal framework of **Law 21/2018, of September 13 , promoting the energy transition and climate change (Litecc)**

National context



Pillars of the legal and strategic framework

Our Law,

Law 21/2018, of September 13 , promoting the energy transition and climate change (Litecc)



Economic growth



Environmental sustainability



Protection and information
to the user



Sovereignty and diversification

Our LTS,

Long-term Energy and Climate Change Strategy

- 1.** **Decarbonization towards carbon neutrality:** mitigating greenhouse gas emissions 
- 2.** **National action to adapt to climate change and increase resilience** 
- 3.** **Taxation tools towards carbon neutrality** 
- 4.** **The social transition** 
- 5.** **Innovation, research and systematic observation** 

Long-term strategy

1.

Decarbonization towards carbon neutrality: mitigating greenhouse gas emissions



Sustainable mobility, prioritizing non-motorized mobility and laying the groundwork for a transition to a low-carbon transport model. Due to its incentive policies, Andorra currently has a market share of electric vehicles between 4-5% and one of the largest networks of electric chargers in the world.

The promotion of renewable energies and high energy efficiency technologies, distributed production and self-consumption of both electricity and heat, which will achieve 33% of national electricity production by 2030 and 50% by 2050, ensuring at the same time 80% of renewable energies, at least.

Activity 2. Sustainable, connected and safe mobility

With regard to public transport, distribution logistics, municipal waste collection, the construction sector or snowmobiles on the ski slopes, among other types of vehicles, it is necessary to ensure a transition to a less emitting model, which tends to be zero emissions, using, among other technologies, those based on green hydrogen

Long-term strategy

5. Innovation, research and systematic observation



The promotion of new technologies and high value-added activities: offers new opportunities for business and economic growth. The technological and social changes needed to ensure the sustainable development of our energy system has to be carried out making sure that the whole society is involved in this change. An example is the MOU-T-B application, a sustainable mobility aggregator.

Activity 15. Innovation

To be developed is a value chain associated with the use of hydrogen or other energy sources such as synthesis gas produced from renewable energy sources as potential energy to achieve carbon neutrality, especially in the transport sector or others. sectors difficult to decarbonise. These forms of energy also allow storage, which is why they can be a good choice for storing electricity from renewable sources, and its subsequent transformation into electricity or its direct use as fuel. One platform for promoting these tests is real labs, and care must be taken to include real research and innovation in the fight against climate change.

To summarize... What could hydrogen bring to Andorra?



1

No limits to renewable electricity production

Production surpluses in relation to consumption for the production of green hydrogen

2

Manage surplus of electricity production

Store surplus of renewable electricity production in the form of green hydrogen for later use as direct fuel or to produce electricity

3

Synthetic Natural Gas (Syngas)

Use of excess electricity to produce hydrogen, which combined with atmospheric CO₂, generates synthetic methane. This technology also helps to absorb CO₂, thus contributing to climate action

4

Heating in the building sector

Direct use or mixing with conventional fuels to power building boilers, and reduce greenhouse gas emissions

5

Mobility

Direct use in heavy vehicles or as storage in light electric vehicles

Ensure a hydrogen corridor in the Pyrenees passing through Andorra

6

Backup uses

Use as a backup of electricity, using a fuel cell when power cuts



Govern d'Andorra

Ministeri de Medi Ambient, Agricultura i Sostenibilitat

Towards carbon neutrality



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