



ELECTRICITY GENERATION BY OSMOSIS

Interest of CNR, the first French producer of
100% renewable electricity

European Parliament – 15th june 2022

L'énergie au cœur des territoires

swe
etch
energy **CNR**

CNR: WHO ARE WE?

Our corporate purpose :
The Rhone for origin,
The territories for partners,
Renewable energies for the future

Rhône River Concessionaire: missions

CNR has been operating and developing the Rhône River for more than 80 years within the framework of three historical missions entrusted to it by the State:

- Generating electricity**
- Develop river navigation**
- Irrigate agricultural land**



Since 2004, CNR has been sharing with the territories a part of the resources generated by the river through public interest projects in the fields of energy, river transport, agriculture, economic and tourist development, water resources and biodiversity.



CNR: WHO ARE WE?

1st French producer of 100% renewable energy

As a historical producer of hydroelectricity, CNR has been diversifying its energy mix from natural resources since the 2000s:



Water



Wind



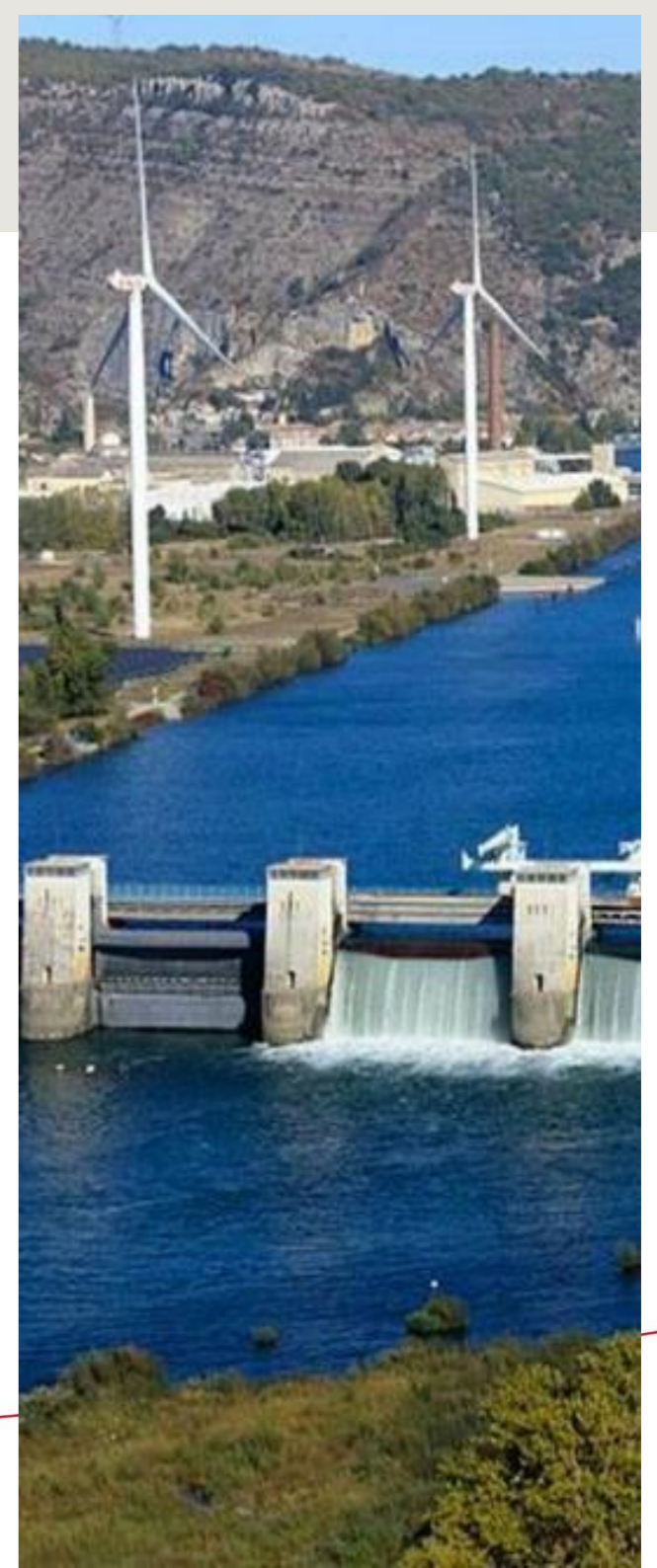
Sun

Actor of the energy transition alongside the territories

CNR is participating in the construction of tomorrow's energy landscape, at the local level and within the framework of national and European guidelines

The only French company that produces and manages exclusively renewable energy.










A responsible company with 19 CSR commitments



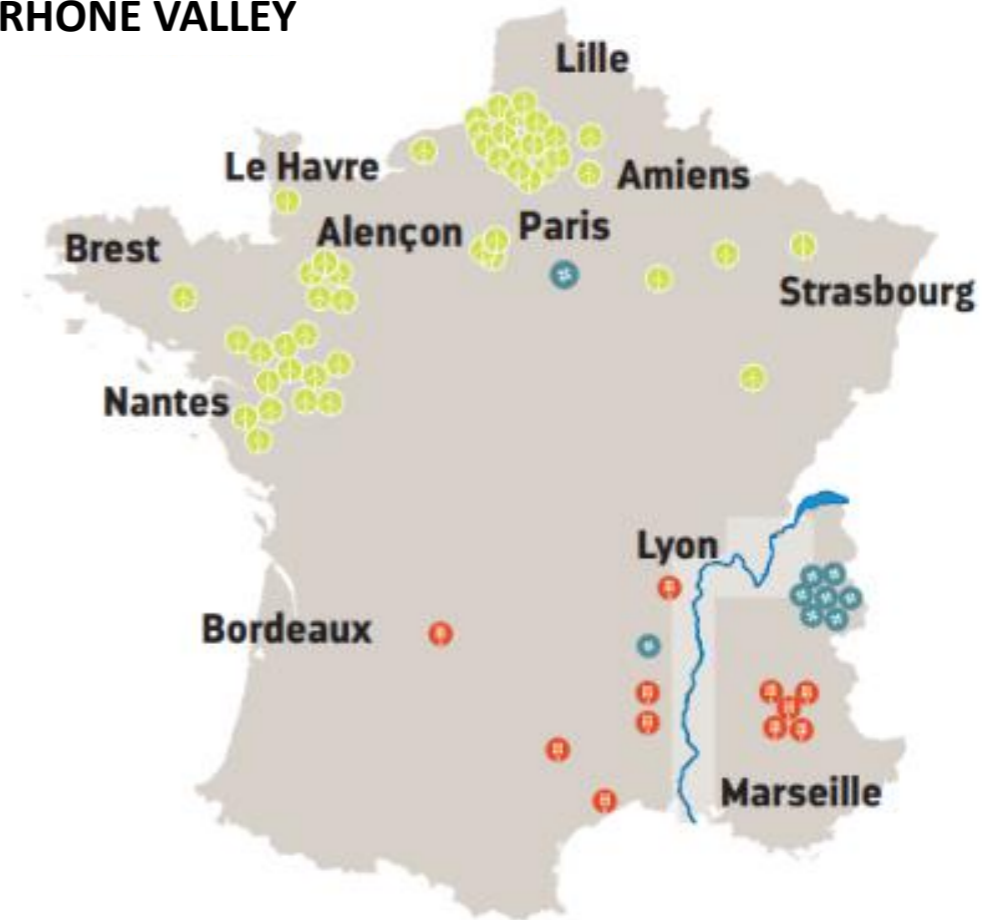
OUR PRODUCTION ASSETS

→ 100% variable, weather related electricity production



-  14 large-gauge locks
-  5 recreational locks
-  19 dams
-  20 hydroelectric power stations
-  17 small and mini hydroelectric plants of which outside the Rhône valley
-  9 restitution groups at dams
-  55 wind farms, 46 of which are outside the Rhône Valley
-  33 photovoltaic plants
-  developed channels

OUTSIDE THE RHÔNE VALLEY





➤ **Osmosis is a means of electricity generation meeting CNR's 6 strategic ambitions for 2030 :**

- #1:** Develop the Rhône and its many uses in a responsible manner
- #2:** Accelerate the production of renewable electricity
- #3:** Develop the storage & flexibility of renewable electricity
- #4:** Increase the company's performance
- #5:** Be the innovative energy company of the future for the ecological transition
- #6:** Support territories in meeting the climate challenge

INTEREST OF OSMOSIS FOR CNR

➤ Synergies sought by CNR between the Rhône, wind power, solar power and OSMOSIS :



- ***As a concessionaire of the Rhône and a player in the territories:***
 - ❖ Complete the energy recovery of the Rhône valley by exploiting the osmotic potential to the maximum
 - ❖ Contribute to the industrial development of the French osmosis sector
 - ❖ Develop electricity production with low environmental impact
- ***As an energy provider:***
 - ❖ Contribute to accelerating the development of renewable energies to meet the objectives of the Paris Agreement
 - ❖ Develop complementary electricity production :
 - that will compensate for the decrease in the flow of the Rhône due to climate change
 - that will not penalise existing hydroelectric production
 - Continuous and controllable, which will allow the balancing of hydro, wind and solar production
- ~~***As a specialist in river hydraulics,*** provide its expertise to Sweetch Energy for the development of an industrial demonstrator~~

Thank you for your attention

cnr.tm.fr

