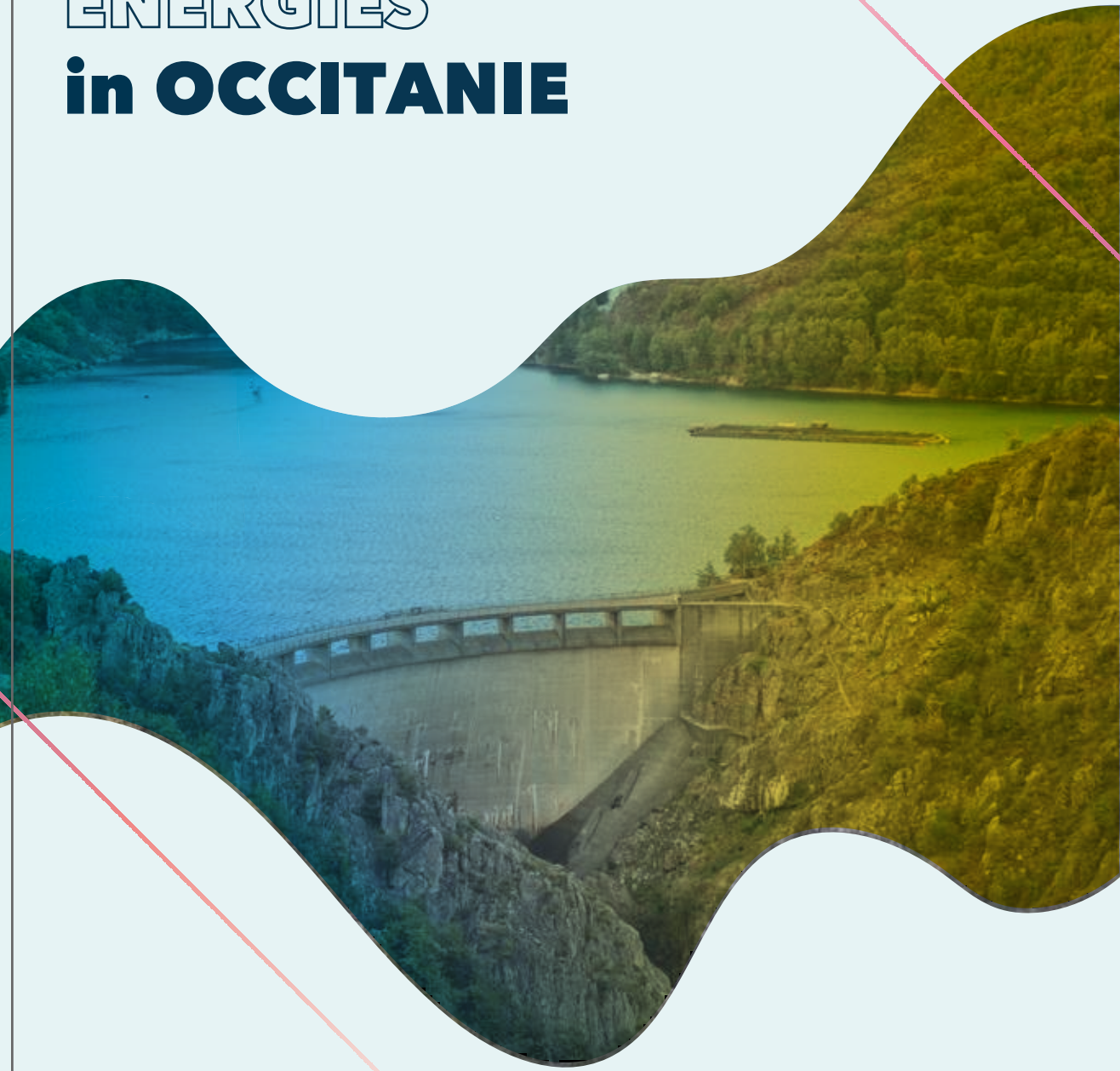


# RENEWABLE ENERGIES in OCCITANIE



# Renewable energies in Occitanie

## Key figures



**12,500**  
jobs



**275**  
businesses



**Leading region** for its development  
potential in offshore floating wind turbines  
(2 pilot farms out of 4 launched in France)



**3,023 GWh**  
photovoltaic power  
generation per year\*



**9,237 GWh**  
hydroelectric  
production  
per year\*



**3,566 GWh**  
wind power  
production per year\*



The most powerful  
**solare furnace**  
in the world

\*Feb 2022

## One ambition: to become a positive energy region by 2050

- Reduce consumption by half and triple the production of renewable energy
- Increase photovoltaic production to reach 7 GW of installed capacity in 2030 and 15 GW in 2050
- Increase onshore wind-power production to reach 3.6 GW of installed capacity in 2030 and 5.5 GW in 2050
- Develop the emerging field of floating offshore wind-power to reach 3 GW of installed capacity by 2050
- Develop the hydrogen sector (2019-2030 plan with funding of €150 million) with the aim of converting 8 GW into green hydrogen by 2050



# Companies and expertise

## Main companies

- EDF / EDF RENOUVELABLES / EDF ENR SOLAIRE
- Electricité Industrielle J.P. Fauché
- EGIS EAU / Egis Bâtiments Sud Ouest
- SCHNEIDER ELECTRIC - Merlin Gérin
- ENGIE GREEN
- SCLE SFE
- LINDE FRANCE SA
- DALKIA
- TOTALENERGIES
- ENERCON
- IDEX ENERGIES
- URBASOLAR
- TENESOL
- AIR LIQUIDE
- QAIR
- GROUPE VALECO (EnBW)
- SHEM
- TECSOL
- ABO WIND
- BIOTOPE
- MITJAVILA



## Occitanie: a breeding ground for innovation

- Flamme H2 (BULANE)
- Refroidissement PV (SUNiBrain)
- Stockage thermique (Eco-Tech Ceram)
- Système de détection des oiseaux (BIODIVWIND)
- Plaque bipolaire pour PAC (HYCCO)
- Electricité et automatismes (SIREA)
- Pile à combustible (Safran Power Units)
- Bus hydrogène (Safra)
- Chaîne de traction H2 (Alstom)
- Optimisation de la maintenance éolienne (8.2 Dolfines)

## A structured and dynamic ecosystem

### • 2 innovation clusters :

**Derbi:** development of renewable energies in building and industry

**Pôle Mer Méditerranée (PMM):** development of marine renewable energies

• **Cémater business cluster:** reinforces the regional renewable energy sector by supporting companies around ethical values

• **HyDeo** (Région, Ademe, AD'OCC) coordinates and develops the hydrogen sector

• **Wind'Occ** (Cémater, PMM, AD'OCC) coordinates and develops the floating offshore energy

• **AREC**, the Regional Agency for Energy and Climate change, supports cities and territories all through their energy transition projects, from initial idea to total completion. AREC invests in the capital of ENR-project companies.





# Research and training

## Multidisciplinary research

- **Toulouse Fluid Dynamics Institute:** specialist in the understanding and modeling of the aerodynamic phenomena
- **CNRS PROMES Lab (Process, materials and solar energy):** Solar furnace in Odeillo-Font Romeu, Central receiver solar facility in Targasonne and solar test platform in Perpignan
- **Charles Coulomb Multi-thematic Physics Research Laboratory:** Development of photocatalytic materials
- **Electronics Institute IES:** specialist in components and systems for photonics, energy and thermics
- **Laboratory on Plasma and Conversion of Energy LAPLACE:** unique lab to cover the "plasma/materials/systems" continuum in an integrated way
- **Hydrogen platform:** test facilities for H2 technologies (fuel cells, electrolyser, integration system and test bench)
- **Laboratory of Environmental Biotechnology (INRA) in Narbonne:** Research on methanisation / BiO2E platform of Environmental Biotechnology and Biorefinery
- **RAPSODEE center in Albi:** Research in Process Engineering of Divided Solids, Energy and Environment
- **Biomass energy platform CIRAD:** Process engineering, biomass thermochemical conversion
- **CREDEN** - Research Centre for Energy Economics and Law



## Training matched to market opportunities

### • Higher education: state of the art training

Ecole des Mines in Albi-Carmaux and Ales

University of Montpellier (UM): 1 master degree in Energy, 1 master degree in Energy Economics and Law

University of Toulouse: Master degree in Thermal Energetics

Sup'EnR in Perpignan

EPF Montpellier: Master degree in Energy and Environment

Institute of Technology (IUT) Nîmes: Vocational 3-year degree in Energy Management, Electricity, Sustainable Development

Numerous professional training courses in the energy transition professions, some of which are based on recognised educational platforms such as PRAXIBAT or Qualit'EnR

### • Campus of trades and qualifications Housing, renewable energy and eco-construction:

Photovoltaic training platform for self-consumption, storage and control by smart grids (UM & IUT Nîmes)



# A region that multiplies energies

## Major projects underway



### DEVELOPMENT OF PORT-LA-NOUVELLE

250M€ invested by the Region in phase 1 for an extension to accommodate floating wind turbine assembly activities



### HYPOR SAS

Production and distribution of green H2 for the Tarbes and Blagnac airports platforms' fleet, their public transport as well as private vehicles



### EOLMED AND EFGL

2 pilot farms ie 6 floating wind turbines to be commissioned by 2023.



### HYD'OCC SAS

Production of green H2 as from 2023 to develop uses in port and maritime areas.



### SMART OCCITANIA

A rural smart grid demonstrator supported by the public grid infrastructure with additional telecom infrastructure.



### FLEXITANIE

Experiment based on the Vehicle-to-grid technology allowing to use the batteries of parked electric cars as a storage solution to power a vehicle or a building.



AD'OCC, the Regional Economic Development Agency for Occitanie, takes you through all the steps of your project (new set up, expansion, partnership). Our turnkey services are confidential and free of charge.

**Contact us. Let's talk about your projects!**

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