



# **Renewable energy sources support scheme in Algeria**

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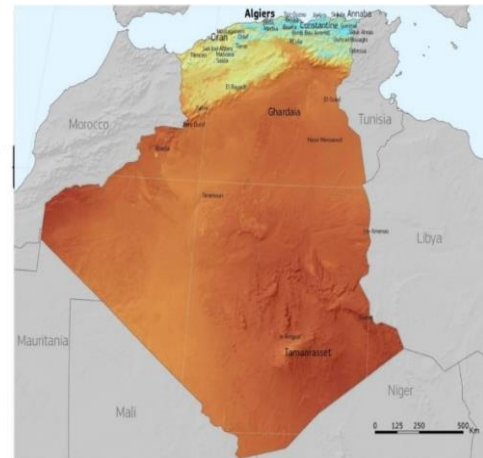
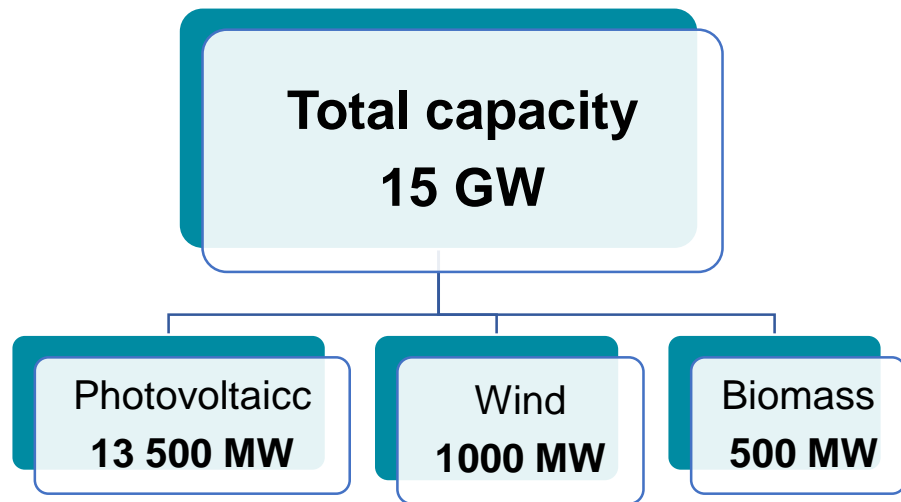
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# National program for renewable energies development (to 2035)

The national program for renewable energy development from 2020 until 2035



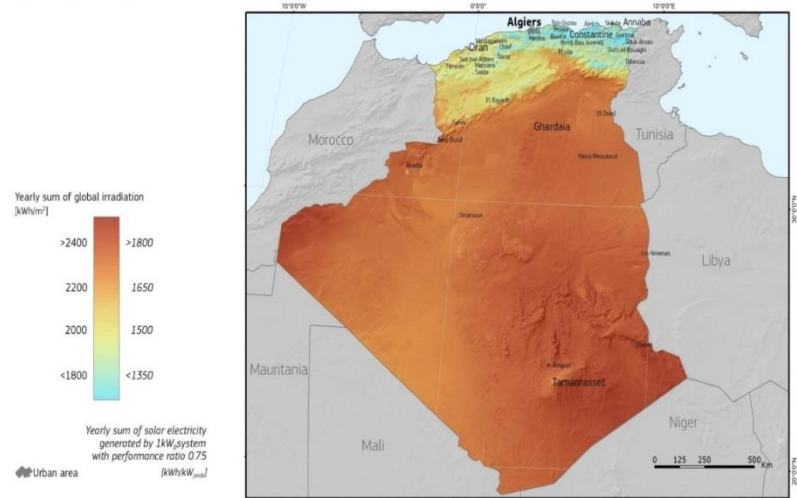
2 382 million km<sup>2</sup>

# Solar

- Important solar potential
- Average solar radiation : 2300 kWh/m<sup>2</sup>/year
- Lands availability especially in the tableland and in the sahara.

Global irradiation and solar electricity potential  
Optimally-inclined photovoltaic modules

ALGERIA

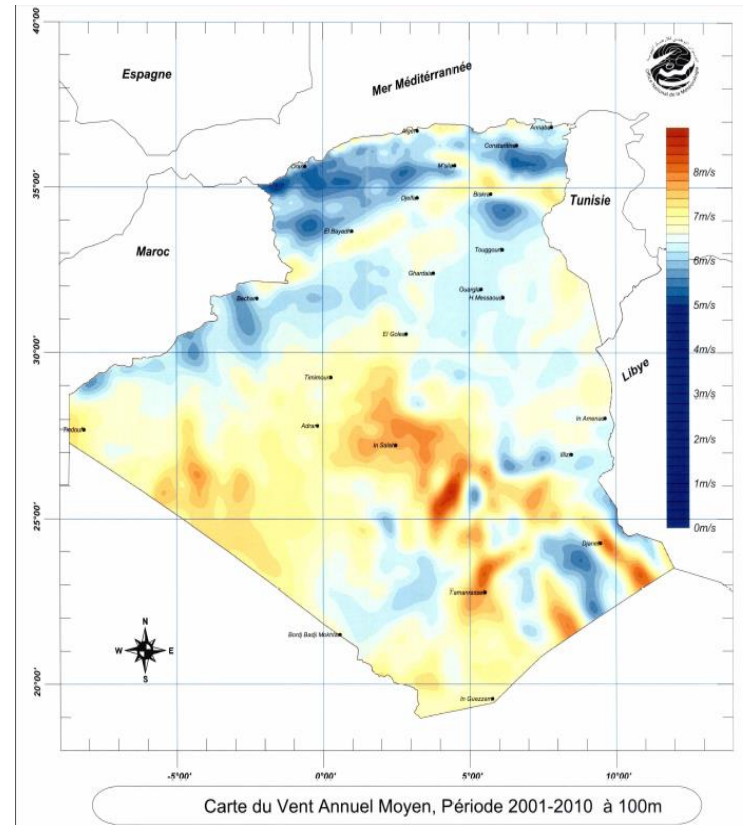


Average solar radiation (kWh/m <sup>2</sup> /y)	North	Tablelands	Sahara
	1 800	2 200	3 000

# Wind

- Two main areas have been identified by the first wind potential studies :
  - The north with an average wind speed potential varying between 4 and 6 m/s
  - The Sahara which has a great potential with a minimum of 7 m/s especially in the regions of In-Salah, Adrar, Djanet and Tamenrast.

Average wind speed (m/s)	North	Tablelands	Sahara
	5 à 6	6 à 7	> 8



- New studies are underway to better estimate the wind potential and to define the best area to implement the power plants

# Support measures for renewable electricity production

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## Legislative and regulatory framework

- law n°02-01 of 05 February 2002 relating to the electricity and the distribution of gas through pipelines
- Law n°04-09 of 14 August 2004, relating to the promotion of renewable energies for sustainable development;

# Support measures for renewable electricity production

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## Legislative and regulatory framework

- The regulation has established the call for tenders and auctions as incentive mechanisms to develop RES:
  - regulation defines the procedure of the call for tender for the production of renewable energies or cogeneration and their integration in the national system of electric energy supply.
  - It sets the conditions for granting bonuses for the costs of diversification of electricity production;
- It also establishes the terms of certification of the origin of renewable energy and the use of these certificates,

# Support measures for renewable electricity production

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## The advantages provided by the regulation in the call for tenders and auctions :

- The guarantee of the sale of electricity produced and injected into the national grid, for a duration specified in the specifications.
- The purchase price of the electricity produced and injected will be determined through a call for tenders.



# CALL FOR TENDERS BY AUCTION

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the call for tender mechanism, foresees two forms :

**The call for tenders for investor** is to be launched, and is led by the Ministry of Energy and Mines for significant capacities (more than 20 GWh/year).

**The auction** is launched by CREG for small capacities

Auctions covers small capacities: installations producing energy quantities between 10 and 20 GWh per site per year.

- ✓The volume to be launched is proposed by the CREG and approved by the ministry
- ✓The choice and the acquisition of the sites are the responsibility of the investors
- ✓The realization of the evacuation and grid connections installations are the responsibility of the investors

# AUCTION

## Auctions preparation



- Site proposition by the DDE
- Defining the volume to be lunched
- Collecting sites information and technical data :
  - Sites climatic conditions (solar radiation, wind speed, temperature, seismicity, ...etc.)
  - The distance between the sites and the existing and planned substations)
- List of the selected sites
- Cadastral plans
- Soil study
- Preparation of the specifications

## Auctions process



- Tender lanching
- Sites visiting
- Opening of folds
- Evaluation et Attribution of The projects

## Projects concretization



- Setting up the purchasing contract and lands concession
- Obtaining the different licenses and permits
- Assisting the investors in the processes of obtaining concessions, as well as for the various permits related to the energy sector
- Plants construction and commissioning
- Plants operation



# **Electricity guarantees of origin certification**

# Electricity guarantee of origin certification

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- The certificate of guarantee of origin is granted by the CREG. It aims to certify the renewable origin of the electricity injected and the source of power for the functional equipment.
- The certificate must be obtained prior to the commissioning of the electricity production installation.
- The certification is based on the verification of compliance with the provisions of the decisions establishing the principles and methods applicable to the measurement and counting of energy for renewable electricity production installations,
- The development of certification system is in going to allow the exportation of green energy and product with low carbon footprint.



# **The development of decentralized production of renewable energies (Auto-consumers)**

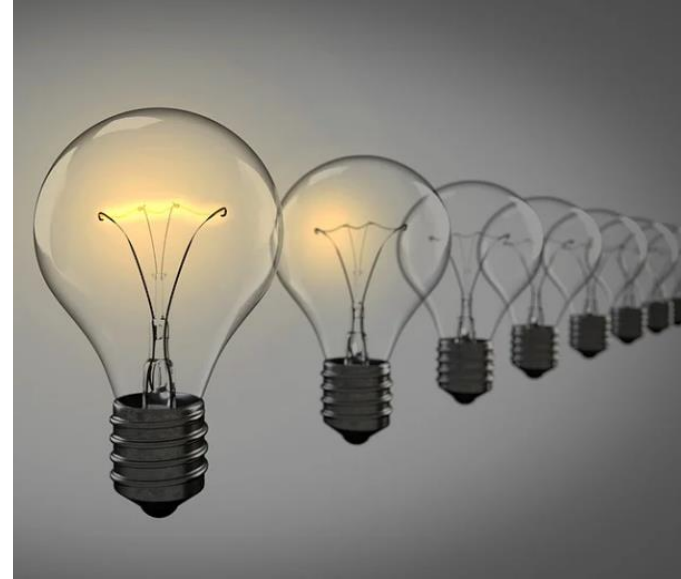
# Pilot projects « communes vertes » (green municipalities)

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- This project has been implemented since 2019, and contributes to the involvement of tertiary infrastructures, by equipping schools with photovoltaic modules, to meet their own electricity needs.
- in the event of overproduction of electricity, an injection into the distribution network is planned
- At the current stage, it is planned to connect certain installations to the distribution network (low voltage) to study their behavior and the impact that they could have on the network.
- The examination and proposal of different incentive mechanisms that can be implemented in Algeria as well as contract models will also be carried out

# Other study regarding Auto-consumers

- ❑ Evaluation of the Renewable Energy Framework in Algeria
  - ✓Regulatory Framework for Self-Production of Renewable Energy in Algeria
  
- ❑ Macroeconomic Analyses
  - ✓Economic Potential of Self-Production in Algeria
  - ✓Development Scenarios for Self-Production
  - ✓Impact Assessment



# Corporate PPA

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- Law allows for the establishment of a direct bilateral contract between an eligible customer and an electricity supplier of their choice.
- In accordance with this law, contract templates are to be published by the CREG.





*Thank you for your attention*

