

ALGERIA. RESEARCH FOR RENEWABLE ENERGY SOURCES

Algeria has a large reserves of hydrocarbons, but the country, although it has serious photovoltaic potential, also wants to participate in Africa's transition to renewable sources.

Algeria is considered one of the most energy-intensive countries, where the share of fossil fuels in electricity production is more than 95%. In addition, Algeria is vulnerable to climate change, which in turn requires a reduction in the use of fossil fuels. Factors such as diversification of the country's economy and reduced dependence on the oil and gas sector are expected to drive the renewable energy market in Algeria.

In addition, the diversification of the energy balance offers many benefits, including job creation and energy security, which contributes to the further development of the renewable energy market in the country.

The government has planned several projects to generate 22,000 MW of electricity by 2030, with solar power expected to account for the largest share. The government plans to increase the share of renewable energy sources in the energy balance by more than 25% by 2030 by creating a new national model of electricity consumption with new projects aimed at the development of solar, wind, hydroelectric and power plants.

One of the most important solar farms in the country is located in Laguate. With a peak capacity of 60 MW, the El Heneg power station consists of 240,000 solar modules installed in the Sahara desert. The produced energy covers approximately one-seventh of the region's needs.

In the capital of the country, scientists are working on another promising direction - hydrogen, which is called the energy of the future. Algeria has entered into a partnership with Germany to produce and possibly export much-needed green hydrogen via pipelines to Europe.

As you know, hydrogen is produced by electrolysis. Electrolysis is impossible without electricity. In Algeria, renewable energy can be produced at a very low cost, so hydrogen will be inexpensive. Hydrogen can be produced in other ways, for example, by a thermal method. But the main advantage of Algeria is the great potential of solar energy, which will allow to produce hydrogen at competitive prices - with the help of processes that practically do not use water.

Today, pilot projects for the production of ecologically clean hydrogen without harming the Sahara ecosystem are being developed in Algeria. Large-scale experiments can begin as early as 2030.