

DJERMAYA



Location

Djermaya, Hadjer-Lamis region,
Chad

PROJECT SUMMARY

Ambitious plans for an estimated 25MW (AC) grid-connected solar PV power plant in Chad could catalyse the transformation of the country's inadequate and entirely fossil-fuel based energy system, and help to alleviate poverty.

Despite numerous financial and geopolitical challenges associated with the project, REPP has committed to a EUR 380,000 development loan to Smart Energies International on the strength of the enormous positive impact the success of the project would have on Chad and its people.

Today, Chad is one of the world's poorest countries and has just 125MW installed power generation capacity, all of which is reliant upon heavy fuel oil and diesel. As of 2016, only 8.8% of its population was connected to the national grid.

At the same time, the country experiences exceptional levels of solar irradiation, creating significant potential for solar energy generation. For this project, the developers have secured a site in the Hadjer-Lamis region, 30km north of the capital city of N'Djamena, with an estimated irradiation value of 2,191 kWh/m².

Once built, the solar plant will contribute significantly to Chad's conditional nationally determined contributions (NDC) target to reduce greenhouse gas emissions by 71% by 2030. It will also help alleviate poverty in the country by providing power to the grid at a lower cost than fossil fuel-fired generation, meaning the government can reduce its subsidies to the energy sector and focus its limited resources on other vital services such as infrastructure, education and health. The project will also create 250 jobs during construction, and 12 permanent positions during the operational phase.

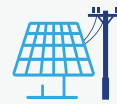
In October 2019, the African Development Bank (AfDB) approved EUR 18m senior debt to support the construction of the project.

As of December 2019, the project was at a relatively advanced stage of development, with the site secured, a tariff agreed with the off-taker, a PPA signed and a PCOA materially agreed.

AT A GLANCE

Technology

Solar PV with
single axis
trackers



Project type

Greenfield,
grid-connected

Offtaker

La Société Nationale
D'Electricité (SNE),
Chad's national utility

KPIs



Greenhouse gas emissions
avoided: 39,680 tCO₂e per
year



People with first-time access
to clean energy: N/A



Installed capacity:
Approx. 25MW (AC)

FUNDING STRUCTURE

Signed: 2 May 2018

Type: Development loan

REPP funding: EUR 380,000

SDGs

7 AFFORDABLE AND
CLEAN ENERGY



11 SUSTAINABLE CITIES
AND COMMUNITIES



13 CLIMATE
ACTION



17 PARTNERSHIPS
FOR THE GOALS



"The energy needs are very important in Chad – needs mostly satisfied today by polluting energies. In a country with strong sunlight like Chad, solar energy appears as a great means to expand access to clean energy. We are happy to contribute to its deployment."

Hugues Antoine Guinoiseau, Director, Smart Energies International