

## Niger

Africa

Ease of doing Solar classification



# **Progressive**

Electricity Consumption in kWh/capita (2020)

16.5

Getting Electricity Score (2020)

52.7

Average PVout in kWh/ kWp/day (2020)

4.8

NDC Target by 2030 in %

45.0

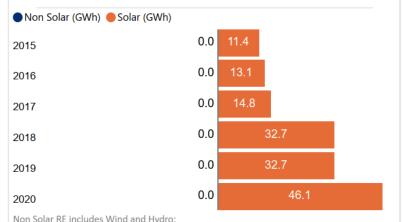
Cumulative Solar Capacity in MW (2021)

27.0

Human Development Index (2021)

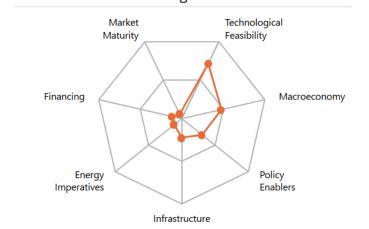
0.4

### Renewable Energy Generation by Source

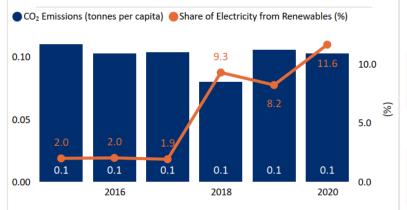


von Solar RE includes Wind and Hydro;

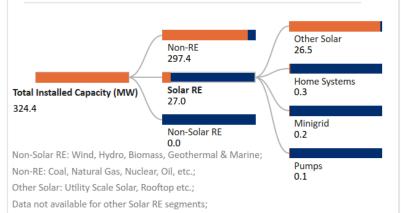
## Performance against 7 Drivers



## CO<sub>2</sub> Emissions vs Electricity share from Renewables



Installed Capacity by Source (2019)



Fiscal Incentives & Public Financing for Renewables (2020)

Investment or production tax credits?

No

Public investment, loans, grants, capital subsidies or rebates?

No

#### Support for Renewables (2020)

Feed-in-Tariffs for renewable energy supply to the grid?

No

Renewable Energy Certificates?

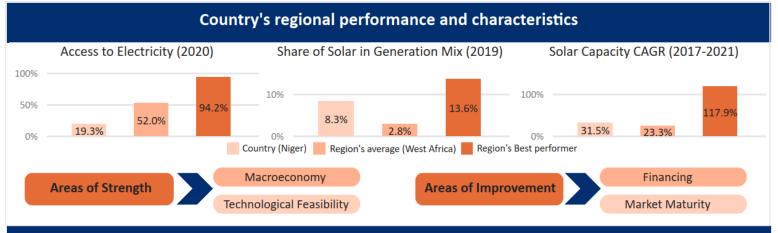
No

Net metering/Gross metering policies and regulations?

Vo

Renewable Purchase Obligation?

No



#### **Key Insights**

Drivers Insights



- •Niger is a low-income country with a GDP per capita (PPP) of USD 1,304 in 2021. 1,2
- •GDP (Real) grew at an annual rate of 1.3% in 2021 and it is estimated to grow by 6.9% in 2022. <sup>3</sup>
- •The inflation rate in the country declined to 3.2% in 2021 from 4.4% levels in 2020. <sup>4</sup>
- •Total public debt in the country increased to 50.9% of GDP in 2021 from 43.6% levels in 2020. <sup>4</sup>



- •The Ministry of Energy is responsible for defining, implementing, monitoring and evaluating electricity policy in Niger. 5
- •The Department for the Promotion of Renewable Energies is responsible for promoting and developing RE sector in the country. <sup>5</sup>
- •The Government of Niger created a Nigerien Agency for the Promotion of Rural Electrification (ANPER) to design, implement, and monitor rural electrification programs. <sup>6</sup>
- •Lighting Africa worked with the Niger Ministry of Energy and Ministry of Finance to exempt taxes on imports of solar and other RE products that came into effect in 2017. <sup>7</sup>



- •Niger receives very high levels of solar irradiation of 6.2 kWh/m²/day and a specific yield of 4.8 kWh/kWp/day indicating a very strong technical feasibility for solar in the country. 8
- •Niger's Solar Home Systems sales recorded the largest percentage increase in the region (with an impressive 325%) and reached record volumes of 14,000 units sale from July 2019 to December 2019 period. <sup>9</sup>
- •ANPER launched a nationwide feasibility study on mini-grid development with the support of USAID and Power Africa in 2019. <sup>6</sup>



- •19.3% population in Niger had access to electricity as of 2020. 10
- •The Société Nigérienne d'Electricité (NIGELEC) is responsible for electricity production, transmission, and distribution. 11
- Autorité de Régulation du Secteur de l'Energie au Niger (ARSÉ) is the energy sector regulatory authority of Niger.
- •Niger is a member of the West African Power Pool (WAPP), which aims to integrate the national power systems into a unified regional electricity market. <sup>13</sup>



- •The Nigeria-Niger-Benin-Burkina Faso power interconnection project of one 330 kV double-circuit line over 842 kms allows power exchange among the Countries in the WAPP. <sup>14</sup>
- •In 2022, the Economic Community of West African States (ECOWAS) started to build the "North Backbone" ("Dorsale Nord"), a 330 kV transmission line worth USD 568 Mn between Nigeria, Niger, Burkina Faso, Benin, and Togo. <sup>15</sup>
- •The AFDB approved a USD 550 Mn investment for the construction of a 330 kV transmission line from Birnin Kebbi (Nigeria) to Ouagadougou (Burkina Faso) through Niamey (Niger). <sup>16</sup>



- •In 2022, AfDB approved USD 379.6 Mn Desert to Power financing facility for Niger and committed to providing technical assistance over the next seven years. <sup>17</sup>
- International fund flow in 2018 was USD 29.2 Mn (in PPP terms) to support clean energy and RE deployment.
- •In Niger, the World Bank has shown keen interest in providing finance for 22 national and 10 regional projects valued at USD 2.98 Bn. <sup>18</sup>



**Imperatives** 

- $\bullet$ In 2020, Niger's per capita electricity consumption of 0.016 MWh, which is significantly lower in comparison to the global average of 3.31 MWh.  $^{21}$
- •The total installed capacity in the country stood at 324.43 MW in 2019. 19
- •The total installed capacity of Solar PV witnessed a CAGR of 31.5% between 2017-2021 reaching 27.04 MW in 2021 from 9.04 MW levels in 2017. <sup>20</sup>
- •The price of electricity in the country stood at 19.3 US Cents/kWh as of 2019. <sup>22</sup>