



# Nauru

Asia & Pacific

## Ease of doing Solar classification



### Influencer

Electricity Consumption in kWh/capita (2020)

# 3692.1

Average PVout in kWh/kWp/day (2020)

# 4.7

Cumulative Solar Capacity in MW (2021)

# 2.1

Getting Electricity Score (2020)

# Not available

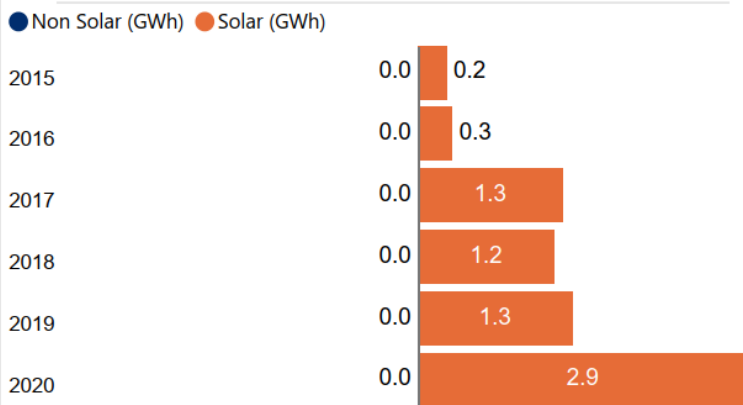
NDC Target by 2050

# Net zero

Human Development Index (2021)

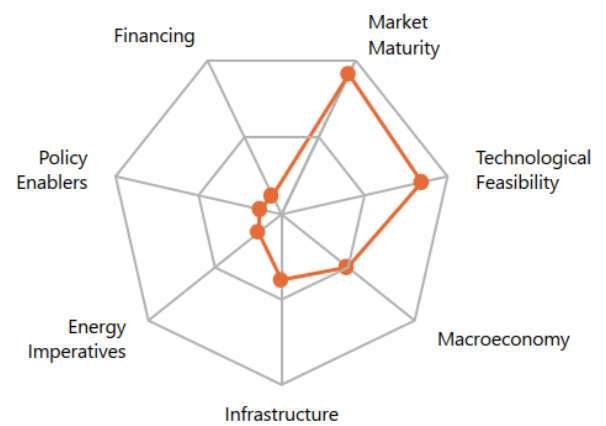
# Not available

### Renewable Energy Generation by Source

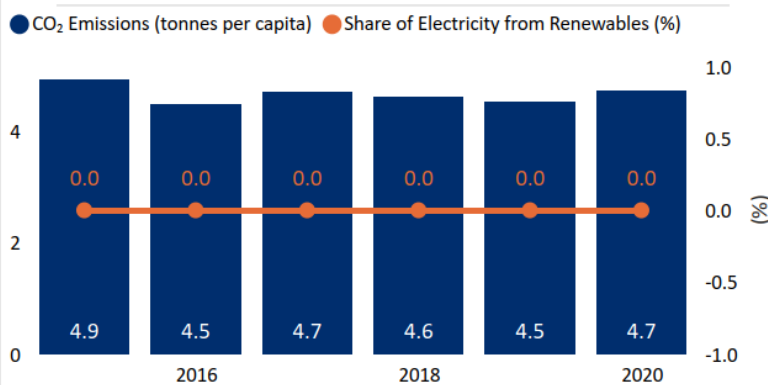


Non Solar RE includes Wind and Hydro;

### Performance against 7 Drivers



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

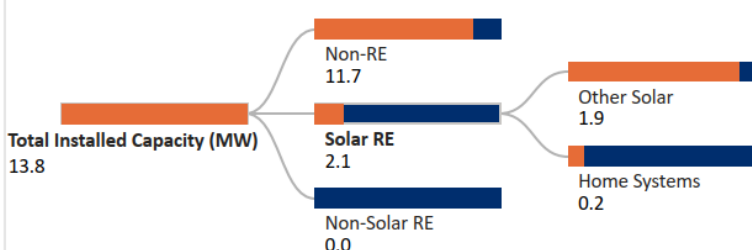


### Fiscal Incentives & Public Financing for Renewables (2020)

Investment or production tax credits?  
**No**

Public investment, loans, grants, capital subsidies or rebates?  
**No**

### Installed Capacity by Source (2019)



Non-Solar RE: Wind, Hydro, Biomass, Geothermal & Marine;

Non-RE: Coal, Natural Gas, Nuclear, Oil, etc.;

Other Solar: Utility Scale Solar, Rooftop etc.;

Data not available for other Solar RE segments;

### Support for Renewables (2020)

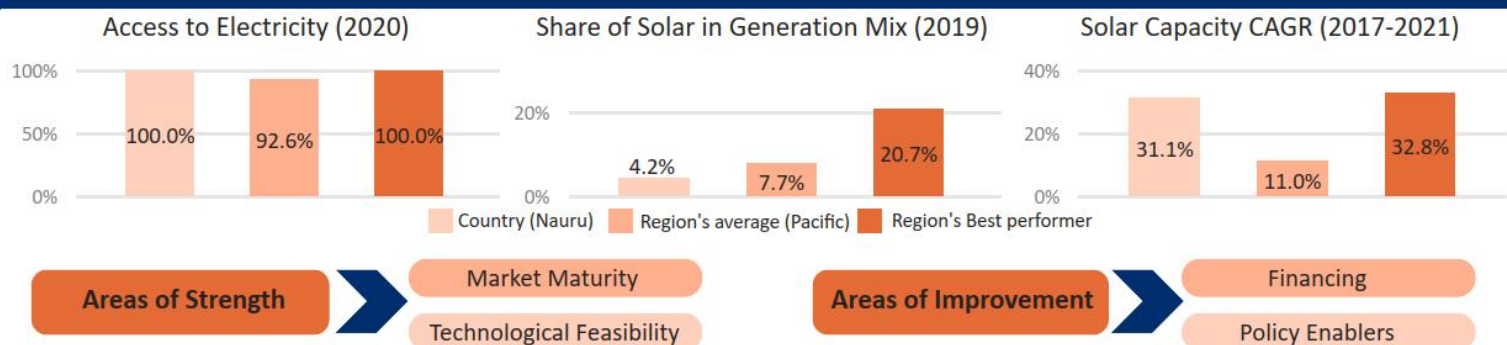
Feed-in-Tariffs for renewable energy supply to the grid?  
**No**

Net metering/Gross metering policies and regulations?  
**No**

Renewable Energy Certificates?  
**No**

Renewable Purchase Obligation?  
**No**

## Country's regional performance and characteristics



## Key Insights

### Drivers

### Insights



Macro-economy

- Nauru is a high income country with a GDP per capita (PPP) of USD 13,125 in 2021. <sup>1,2</sup>
- Due to COVID-19 Pandemic, the GDP (Real) grew at only 0.7% in 2020. However, in 2021, the GDP has shown signs of improvement recording an annual growth rate of 1.6%.<sup>3</sup>
- The inflation rate (CPI) of Nauru has increased to 1.2% in 2021 from -6.6% levels in 2020.<sup>4</sup>
- The general government gross debt to GDP has significantly decreased to 27.1% in 2021 from 61.4% levels in 2020. <sup>5</sup>



Policy enablers

- Nauru's NDC has a target to achieve net zero greenhouse gas emissions by 2050.<sup>6</sup>
- The Nauru National Energy Policy Framework (NEPF) policy framework has prescribed guidelines for development of the energy sector for immediate future, mid and long-term goals.<sup>7</sup>
- Nauru, in collaboration with project executor IUCN and implementing agency UNEP, has established a low carbon fund (LCF) of USD 80,000 to promote RE and EE in private sector.<sup>8</sup>



Technological Feasibility

- Nauru receives very high levels of solar irradiation (GHI) of 5.9 kWh/m<sup>2</sup>/day and specific yield 4.7 kWh/kWp/day indicating a very strong technical feasibility for solar in the country.<sup>9</sup>
- The Nauru Solar Power Development Project of capacity 2,500 kW with 5,000 kWh Battery Energy Storage System was announced in 2019 indicating a traction in RE and storage space.<sup>10</sup>
- Pacific Islands Greenhouse Gas Abatement through Renewable Energy (PIGGAREP) has extended training to Nauru Renewable Energy Staff and has facilitated successful installation of 150 solar powered street lights in Nauru college.<sup>11</sup>



Market Maturity

- 100% of the population in Nauru had access to electricity as of 2020.<sup>12</sup>
- Nauru Utility Corporation (NUC) owns and operates power generation and distribution as well as water desalination and supply.<sup>13</sup>
- Nauru Utilities Corporation (NUC) Act 2011 defines responsibilities of the utilities corporation and doesn't legislate or regulates for everyday operations.<sup>14</sup>



Infrastructure

- NUC distribution system has a main ring configuration system which includes 11 kV, 3.3 kV and 415 V lines. <sup>14</sup>
- Nauru's interruption duration and interruption frequency indexes have improved from 67,500 minutes to 8,600 minutes and from 490 to 96 between 2015 and 2017.<sup>15</sup>



Financing

- In 2019, ADB and the Government of Nauru had signed a USD 22 Mn grant for solar projects with an objective to deliver reliable, affordable, secure and sustainable solar energy.<sup>16</sup>
- Pacific Environment Community (PEC) has invested an amount of USD 4 Mn to install a solar power generation system in Nauru.<sup>17</sup>



Energy Imperatives

- In 2020, the per capita consumption of electricity stood at 3.7 MWh, which is higher as compared to the global average of 3.31 MWh.<sup>18</sup>
- The total installed capacity of Solar PV witnessed a CAGR of 31.1% between 2017-2021 reaching 2.1 MW in 2021 from 0.7 MW levels in 2017.<sup>19</sup>
- The peak demand for electricity in the country is 0.04 TWh and has remained similar in 2021 and 2020.<sup>20</sup>
- In 2021, the total installed capacity in the country has reached 0.014 GW with close to 100% share coming from fossil fuel.<sup>20, 21</sup>