

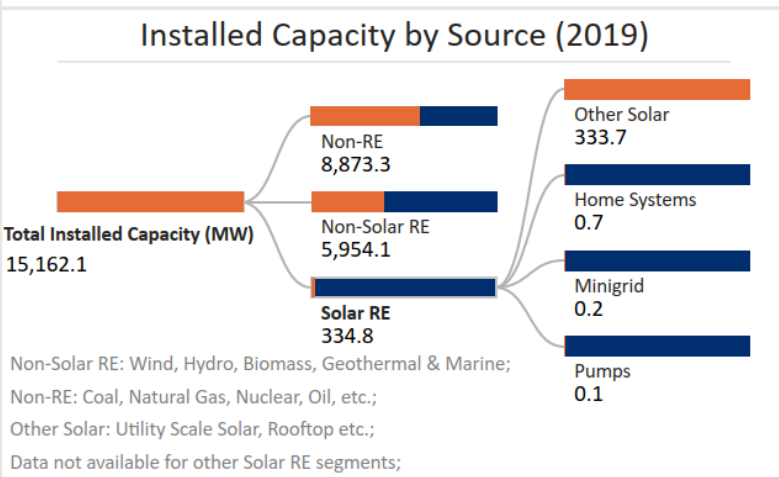
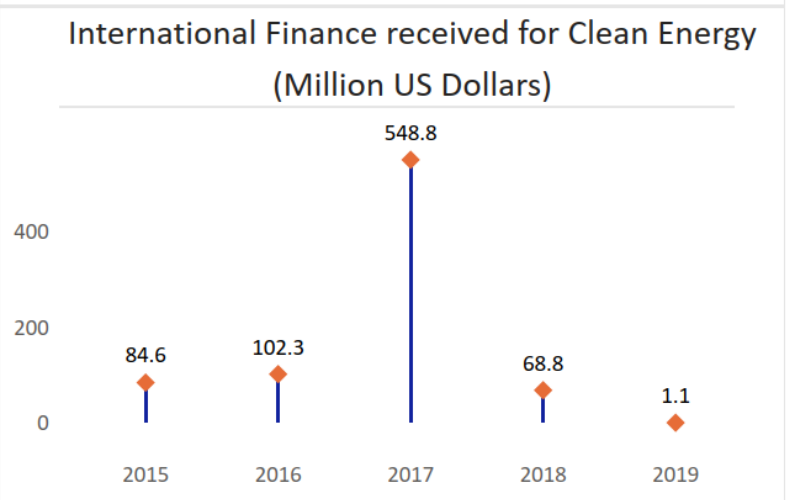
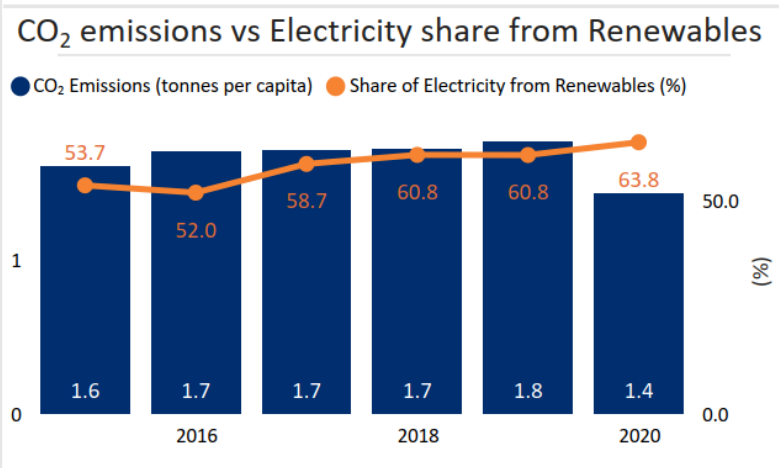
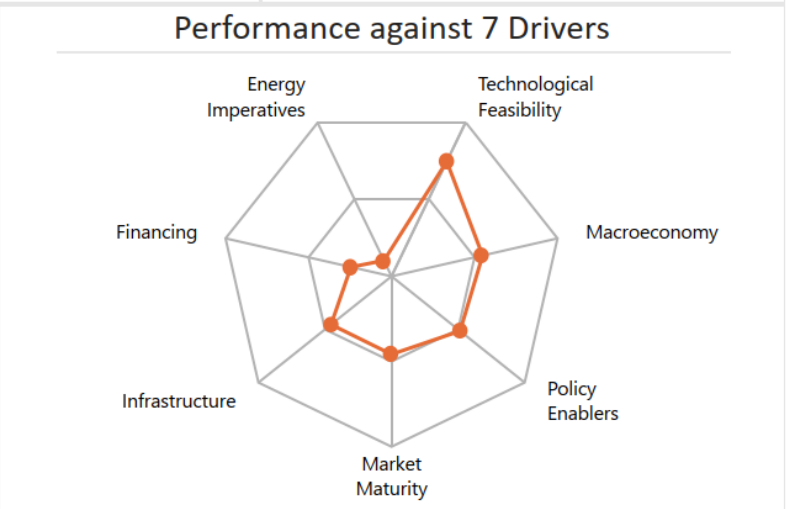
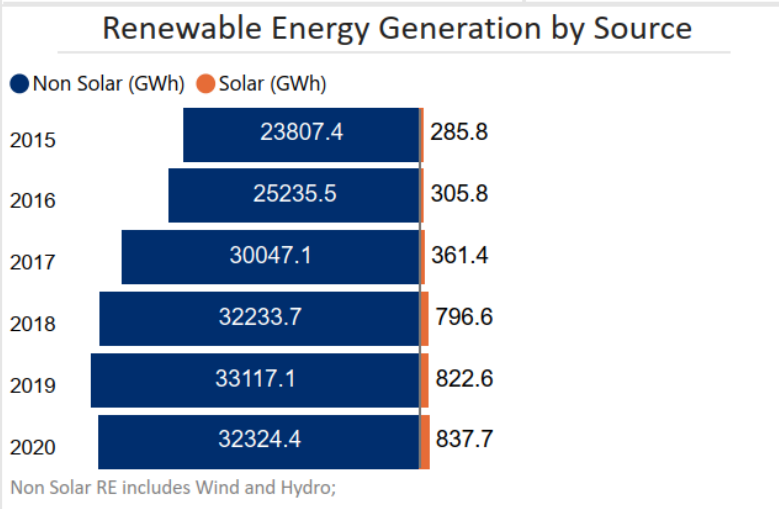
Peru

Latin America & Caribbean

Ease of doing Solar classification

Influencer

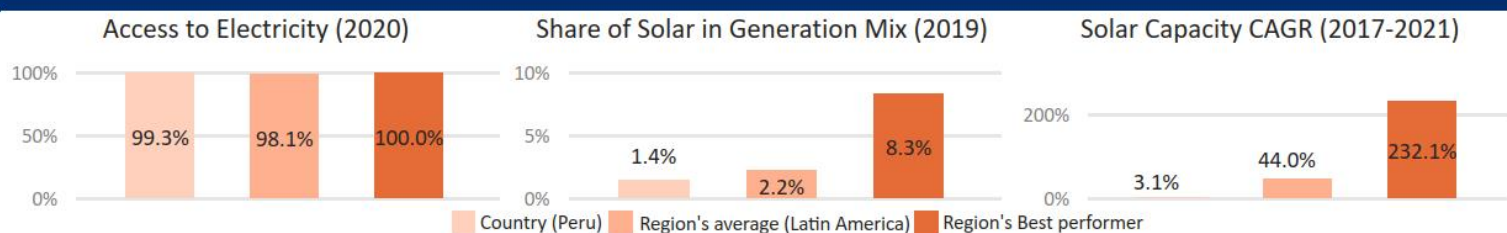
<p>Electricity Consumption in kWh/capita (2020)</p> <h1 style="margin: 0;">1632.0</h1>	<p>Average PVout in kWh/kWp/day (2020)</p> <h1 style="margin: 0;">4.9</h1>	<p>Cumulative Solar Capacity in MW (2021)</p> <h1 style="margin: 0;">336.0</h1>
<p>Getting Electricity Score (2020)</p> <h1 style="margin: 0;">74.5</h1>	<p>NDC Target by 2030 in MtCO₂e</p> <h1 style="margin: 0;">179.0</h1>	<p>Human Development Index (2021)</p> <h1 style="margin: 0;">0.8</h1>



Support for Renewables (2020)

<p>Feed-in-Tariffs for renewable energy supply to the grid?</p> <h2 style="margin: 0;">Yes</h2>	<p>Net metering/Gross metering policies and regulations?</p> <h2 style="margin: 0;">Yes</h2>
<p>Renewable Energy Certificates?</p> <h2 style="margin: 0;">No</h2>	<p>Renewable Purchase Obligation?</p> <h2 style="margin: 0;">Yes</h2>

Country's regional performance and characteristics



Areas of Strength

Macroeconomy
Technological Feasibility

Areas of Improvement

Energy Imperatives
Financing

Key Insights

Drivers

Insights



Macroeconomy

- Peru is an upper middle-income country with a GDP per capita (PPP) of USD 13,749 in 2021.^{1,2}
- Due to COVID-19 Pandemic, the GDP (Real) has contracted by 11.0% in 2020. However, in 2021, the GDP has bounced back registering an annual growth rate of 13.3% which is one of the fastest recoveries in the world.¹
- The inflation rate (CPI) of the country has increased to 4.0% in 2021 from 1.8% levels in 2020.¹
- The general government gross debt to GDP has reached 35.9% in 2021 from 35.1% levels in 2020.¹



Policy enablers

- The National Rural Electrification Plan 2016-25 aims to provide electricity access to 3.3 Mn people in rural regions through an investment of USD 1,280 Mn in rural electrification systems of which USD 294 Mn is for solar PV installations.⁷
- Various incentives such as priority dispatch to clean energy plants and 20% accelerated depreciation for renewables projects and net metering are being implemented in the country to promote the development of renewable energy.^{7,10}



Technological Feasibility

- Peru receives high levels of solar irradiation (GHI) of 5.2 kWh/m²/day and specific yield 4.9 kWh/kWp/day indicating a strong technical feasibility for solar in the country.³
- In 2021, 58.93% of the country's power demand was met through RE sources.⁴
- The country's solar PV generation capacity is underutilised with 800 GWh of power generated in 2019 out of a potential of 559,000 GWh/year.^{4,9}



Market Maturity

- 99.3% of the population in Peru had access to electricity as of 2020.⁴
- OSINERGMIN (Organismo Supervisor de la Inversión en Energía y Minería), an independent public institution, regulates the power sector in the country.⁶
- The utilities for generation, transmission, and distribution are unbundled with various private companies operating in these areas.⁸
- The country has a vibrant electricity market with bilateral contracts and open access legislation that provides a high level of transparency in procedures, market pricing, quantities and payment settlements.⁸



Infrastructure

- The transmission sector is privatised and handled by corporations such as Red de Energía del Per S.A. (REPSA), Consorcio Energético Huancavelica (CONENHUA), Eteselva S.R.L., and others.
- The network operating voltage levels range from 30 kV to 500 kV and by 2025, the total length of their transmission lines is anticipated to reach 31,841 ckm.⁷
- Key private corporations dominate the distribution sector with major participants including Enel, Edelnor, and Luz del Sur.⁷
- The country's national grid is linked to Ecuador by a 220 kV interconnector with trade volumes reaching 33 GWh in 2020.⁷



Financing

- In 2017, European Investment Bank (EIB) has sanctioned a loan of USD 150 Mn to ENEL for development of wind farm and solar power plant with a capacity of 312 MW.¹¹
- The CAF (development bank of Latin America) and the Official Credit Institute (ICO) have signed a USD 40 Mn financing agreement for the development of two wind plant with a total capacity of 36.8 MW.¹²
- The climate change law 2017 targets to promote funding for RE in the country thus mitigating climate change.¹³



Energy Imperatives

- In 2020, the per capita electricity consumption stood at 1.63 MWh, which is relatively lower in comparison to the global average of 3.31 MWh.⁴
- The peak demand for electricity in the country has increased to 52.49 TWh in 2021 from 57.35 TWh levels in 2020.⁴
- In 2021, the total installed capacity in the country stood at 12.53 GW with a significant share coming from hydro (43.8%) and gas (38.1%) followed by wind (3.3%).⁴
- The total installed capacity of solar PV witnessed a CAGR of 3.1% between 2017-2021 reaching 336 MW in 2021 from 297 MW levels in 2017.⁵