
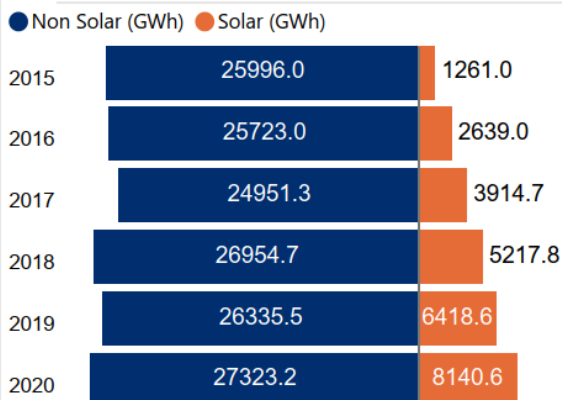
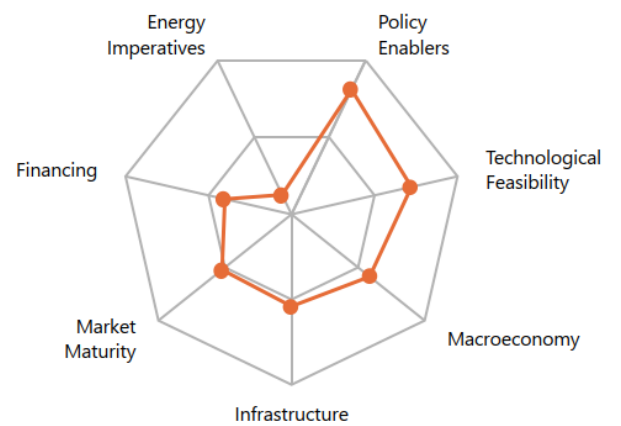
	<b>Chile</b>	Ease of doing Solar classification 
	Latin America & Caribbean	<b>Achiever</b>
Electricity Consumption in kWh/capita (2020) <b>4600.8</b>	Average PVout in kWh/kWp/day (2020) <b>5.4</b>	Cumulative Solar Capacity in MW (2021) <b>4360.0</b>
Getting Electricity Score (2020) <b>85.7</b>	NDC Target by 2030 in MtCO <sub>2</sub> e <b>1100.0</b>	Human Development Index (2021) <b>0.9</b>

### Renewable Energy Generation by Source

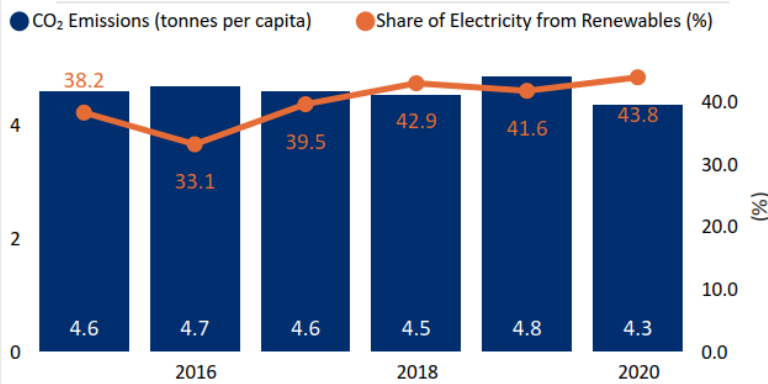


Non Solar RE includes Wind and Hydro;

### Performance against 7 Drivers



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

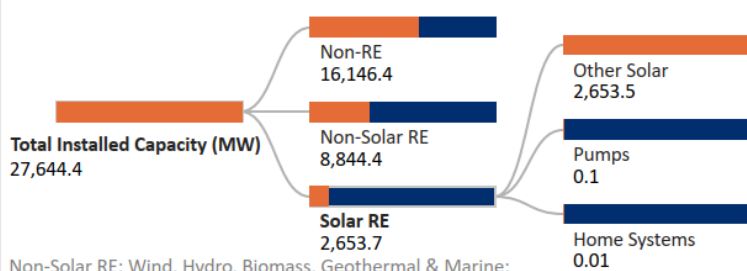


### Fiscal Incentives & Public Financing for Renewables (2020)

Investment or production tax credits?  
**Yes**

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

### 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.;

### Support for Renewables (2020)

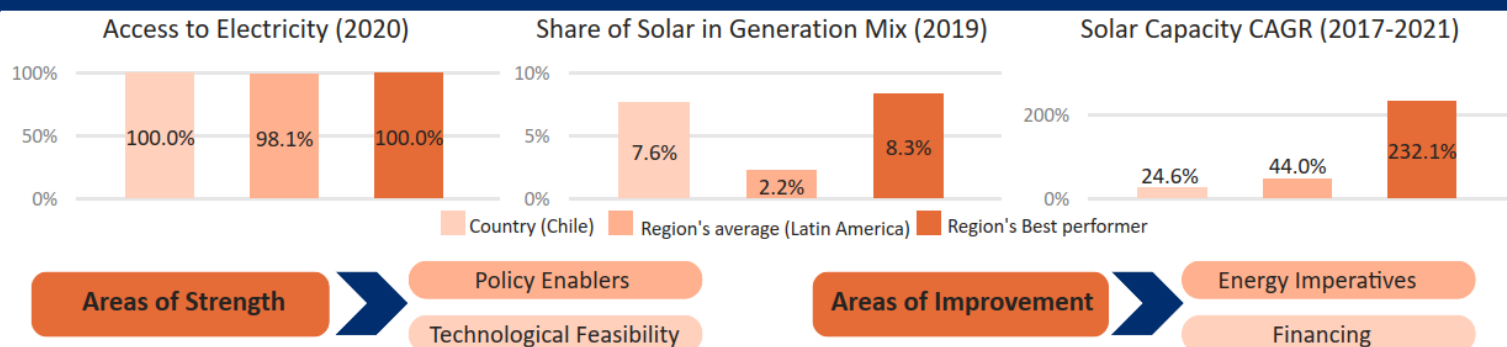
Feed-in-Tariffs for renewable energy supply to the grid?  
**Yes**

Net metering/Gross metering policies and regulations?  
**Yes**

Renewable Energy Certificates?  
**Yes**

Renewable Purchase Obligation?  
**Yes**

## Country's regional performance and characteristics



## Key Insights

### Drivers

### Insights



Macro-economy

- Chile is a high-income country with a GDP per capita (PPP) of USD 28,372 in 2021.<sup>1,4</sup>
- Due to COVID-19 Pandemic, the GDP (Real) has contracted by 6.1% in 2020. However, in 2021, the GDP has bounced back with an annual growth rate of 11.7% which is one of the fastest recoveries in the world.<sup>1</sup>
- The inflation rate (CPI) of Chile has increased to 4.5% in 2021 from 3.0% levels in 2020.<sup>1</sup>
- The general government gross debt to GDP has reached 36.3% in 2021 from 32.6% levels in 2020.<sup>1</sup>



Policy enablers

- In 2022, the Chilean government has announced the Climate Change Framework Law ("the Climate Act"), which aims to achieve net zero emissions by 2050.<sup>2</sup>
- By 2030, the country targets to achieve 70% share from RE in the generation mix. Alongside, it has set an ambitious target to have 16 GW installed capacity of hydropower and 20 GW of solar and wind power by 2050.<sup>11</sup>
- The government has launched a plan in 2020 which seeks to phase out the coal-based power plants by 2040 accelerating the net zero emission transition.<sup>10</sup>
- To promote the development of RE, mechanisms such as RE auctions, net metering, import tax & vat incentives have been implemented.<sup>8</sup>



Technological Feasibility

- Chile receives high levels of solar irradiation (GHI) of 5.8 kWh/m<sup>2</sup>/day and specific yield 5.4 kWh/kWp/day indicating a strong technical feasibility for solar in the country.<sup>5</sup>
- In 2021, 22.49% of the country's power demand was met through RE sources.<sup>13</sup>
- The green hydrogen strategy, introduced in 2020, intends to create 2,00,000 tonnes of green hydrogen by 2030 and targets to make Chile as the lowest-cost green hydrogen producer in the world.<sup>11</sup>



Market Maturity

- The National Energy Commission (CNE), a decentralised public institution, regulates the power sector in the country.<sup>14</sup>
- The power sector in the country was unbundled, in 1980's, into generation, transmission and distribution and has also been privatised with high level participation from private companies.<sup>3</sup>
- Chile is an associate state under the Southern Common Market "MERCOSUR", which aims to encourage the competitive integration of national economies into the global market thus creating commercial and investment opportunities.<sup>15</sup>



Infrastructure

- The Sistema Eléctrico Nacional (SEN), a single interconnected grid, makes up the majority of Chile's electrical transmission infrastructure. The southern regions are covered by the minor isolated grids- the Sistema Eléctrico de Aysén (SEA) and the Sistema Eléctrico de Magallanes (SEM).<sup>20</sup>
- The transmission network operates on voltages level ranging from 66 kV to 500 kV with the total transmission line length reaching 35,919 ckm in 2021.<sup>3,20</sup>
- To upgrade the transmission infrastructure, a total of 210 projects worth USD 2.7 Bn are expected to be tendered between 2020-24.<sup>20</sup>



Financing

- According to BNEF's climate scope report 2021, Chile is the region's top choice for investments in clean energy space. Furthermore, it has also ranked 12<sup>th</sup> in the EY Renewable Energy Country Attractiveness Index (RECAI) in 2022.<sup>9,19</sup>
- In 2021, the Chilean Economy has attracted investments worth USD 3.4 Bn in the renewable energy sector.<sup>11</sup>
- IDB has sanctioned USD 300 Mn loan to the Chilean government in 2022 for accelerating transition towards clean and sustainable energy.<sup>18</sup>



Energy Imperatives

- In 2020, the per capita electricity consumption stood at 4.6 MWh which is relatively higher in comparison to the global average of 3.31 MWh.<sup>6</sup>
- The total installed capacity of solar PV witnessed a CAGR of 24.6% between 2017-2021 reaching 4,360 MW in 2021 from 1,809 MW in 2017.<sup>7</sup>
- In 2021, the total installed capacity in the country reached 28.3 GW with a significant share coming from renewable hydropower (24.8%), coal (16.9%), solar PV (16%), oil (14.7%), natural gas (14.1%), wind (11.4%) and rest from other sources.<sup>6</sup>