COUNTRY INDICATORS AND SDGS

GDP per capita / 8.1.1 Real GDP growth rate

7.3.1 Energy intensity

7.1.1 Access to electricity (% population) / 7.1.2 Access to clean cooking (% population) / 7.2.1 Renewable energy (% TFEC)

7.a.1 Public flows to renewables

7.b.1 Per capita renewable capacity

11.6.2 Air particulate matter (PM$_{2.5}$)
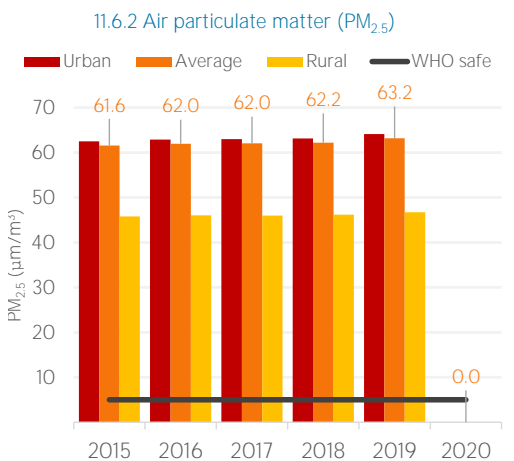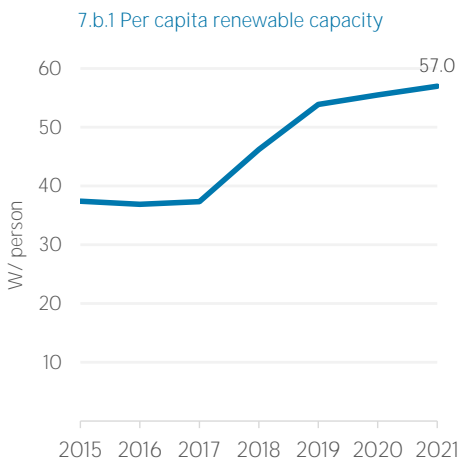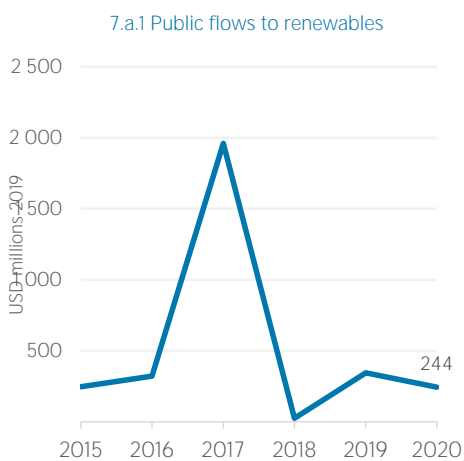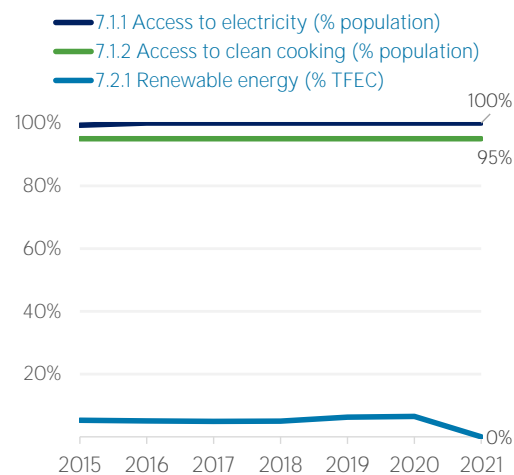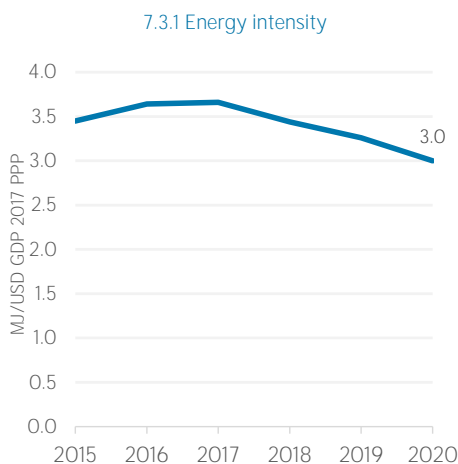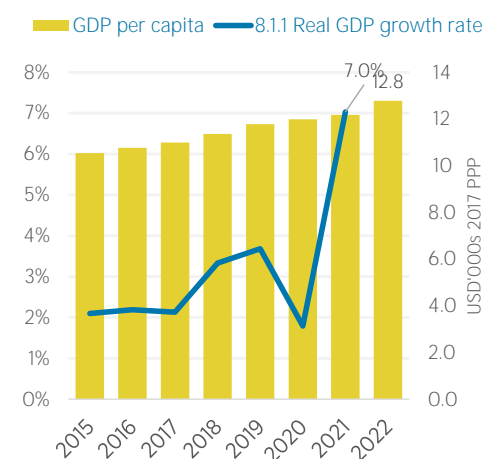
TOTAL ENERGY SUPPLY (TES)

Total Energy Supply (TES)	2015	2020
Non-renewable (TJ)	3 176 429	3 439 275
Renewable (TJ)	277 972	267 722
Total (TJ)	3 454 401	3 706 997
Renewable share (%)	8	7

Growth in TES	2015-20	2019-20
Non-renewable (%)	+8.3	-9.7
Renewable (%)	-3.7	-9.1
Total (%)	+7.3	-9.7

Primary energy trade	2015	2020
Imports (TJ)	1 071 823	932 825
Exports (TJ)	644 292	850 173
Net trade (TJ)	- 427 531	- 82 652
Imports (% of supply)	31	25
Exports (% of production)	21	23
Energy self-sufficiency (%)	88	99

Total energy supply in 2020
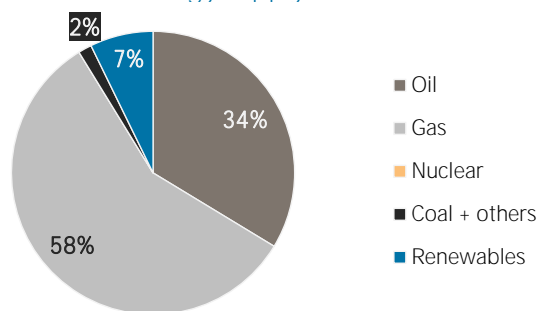
Renewable energy supply in 2020
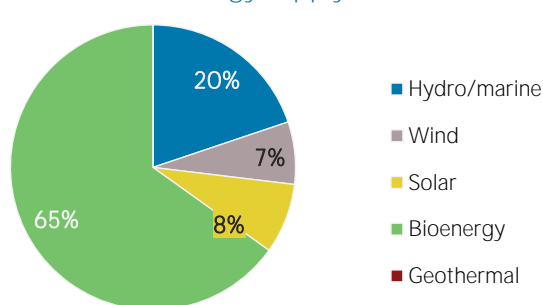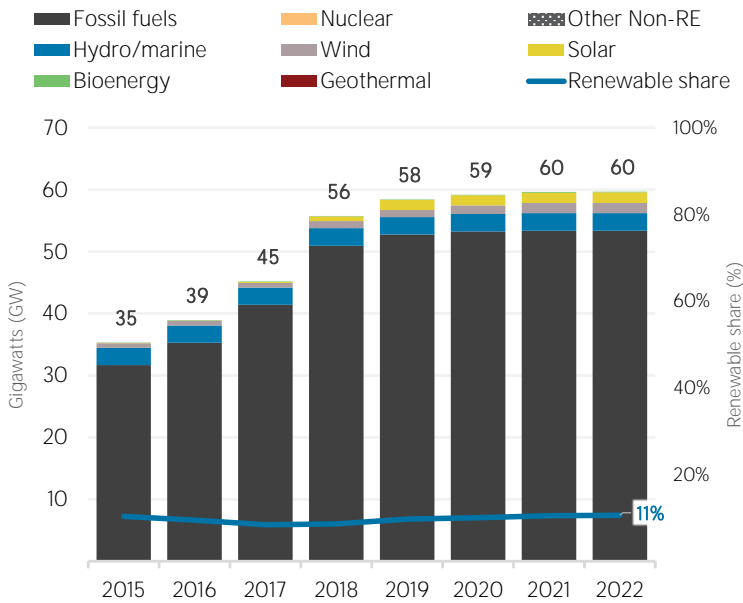
RENEWABLE ENERGY CONSUMPTION (TFEC)

Renewable TFEC trend

Legend: ■ Electricity ■ Commercial heat ■ Bioenergy ■ Geothermal ■ Solar direct

Values above chart: 332, 337, 338, 348, 358, 354 (2015–2020)

Y-axis: Petajoules (PJ), 0–400

Renewable energy consumption in 2020

Top pie: 26% (Electricity), 74% (Bioenergy)

Bottom pie: 14% Industry, 0% Transport, 29% Households, 57% Other — n.a.

Legend: ■ Industry ■ Transport ■ Households ■ Other
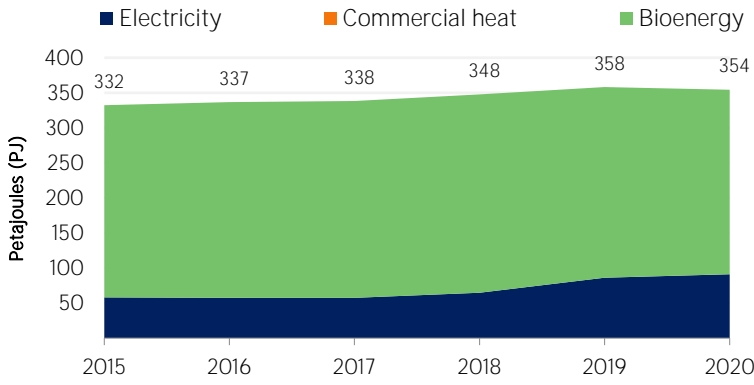
Consumption by sector	2015	2020
Industry (TJ)	69 701	51 060
Transport (TJ)	226	318
Households (TJ)	25 305	101 381
Other (TJ)	237 092	201 566
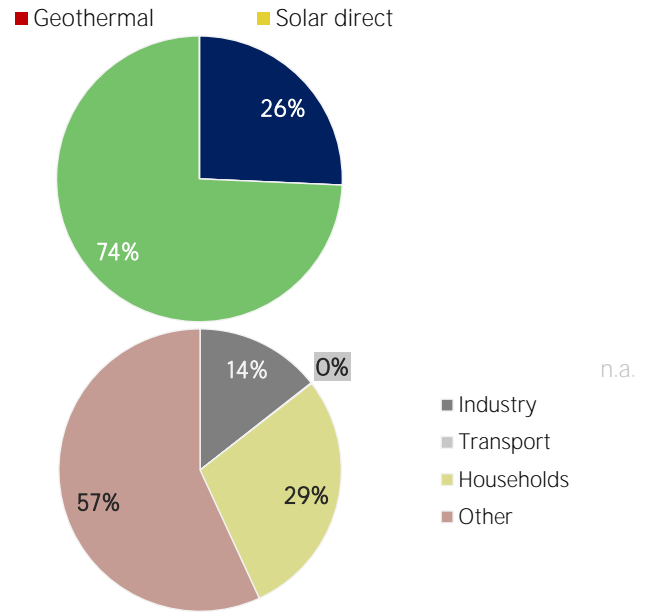
ELECTRICITY CAPACITY

Installed capacity trend

Legend: ■ Fossil fuels ■ Nuclear ▓ Other Non-RE ■ Hydro/marine ■ Wind ■ Solar ■ Bioenergy ■ Geothermal — Renewable share

Values above bars: 35, 39, 45, 56, 58, 59, 60, 60 (2015–2022)

Y-axis left: Gigawatts (GW), 0–70; Y-axis right: Renewable share (%), 0–100%

Renewable share: 11%

Renewable capacity in 2022

Pie: 45% Hydro/marine, 27% Solar, 26% Wind, 2% Bioenergy

Legend: ■ Hydro/marine ■ Solar ■ Wind ■ Bioenergy ■ Geothermal

Net capacity change in 2022 (MW)

Non-renewable 0	**Hydro and marine** 0
Solar + 62	**Wind** + 3
Bioenergy 0	**Geothermal** 0

Net capacity change (GW)

Legend: ■ Fossil fuels ■ Renewable

Year	Fossil fuels	Renewable
2017	6.1	0.1
2018	9.5	1.0
2019	1.8	0.9
2020	0.5	0.2
2021	0.1	0.3
2022	0.0	0.1
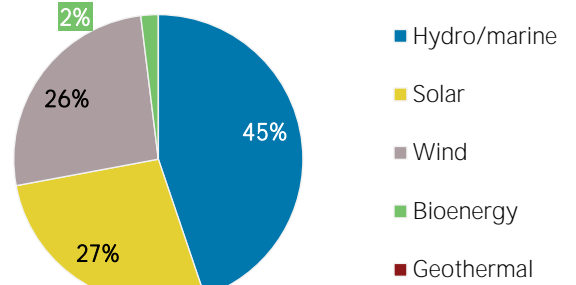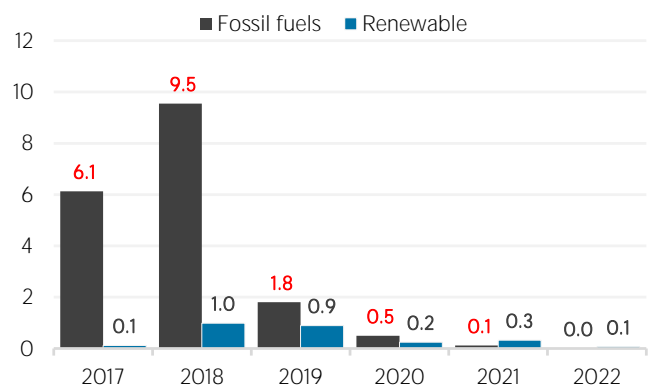
Capacity utilisation in 2021 (%)

	%
Fossil fuels	39%
Nuclear	
Hydro/Marine	60%
Solar	34%
Wind	40%
Bioenergy	31%
Geothermal	
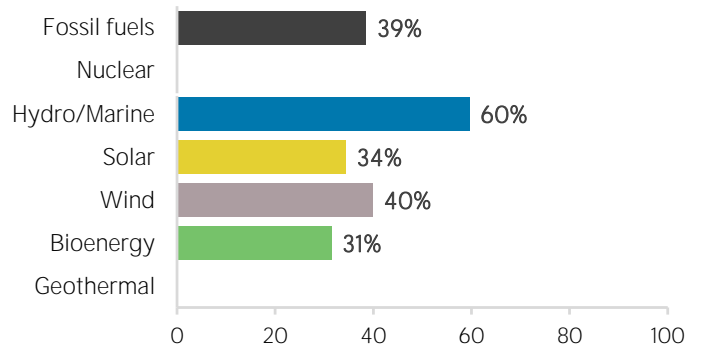
Generation in 2021	GWh	%
Non-renewable	179 771	88
Renewable	25 288	12
Hydro and marine	14 769	7
Solar	4 973	2
Wind	5 269	3
Bioenergy	277	0
Geothermal	0	0
Total	205 060	100

### Per capita electricity generation (kWh)
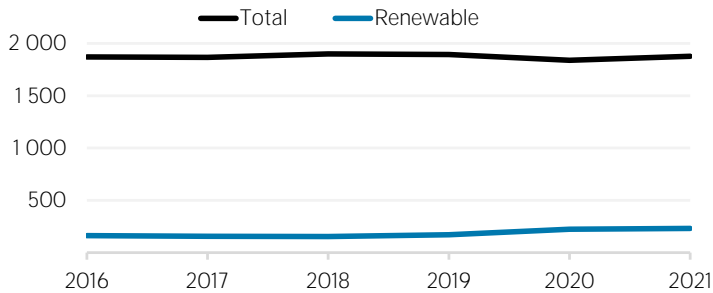
Electricity generation trend
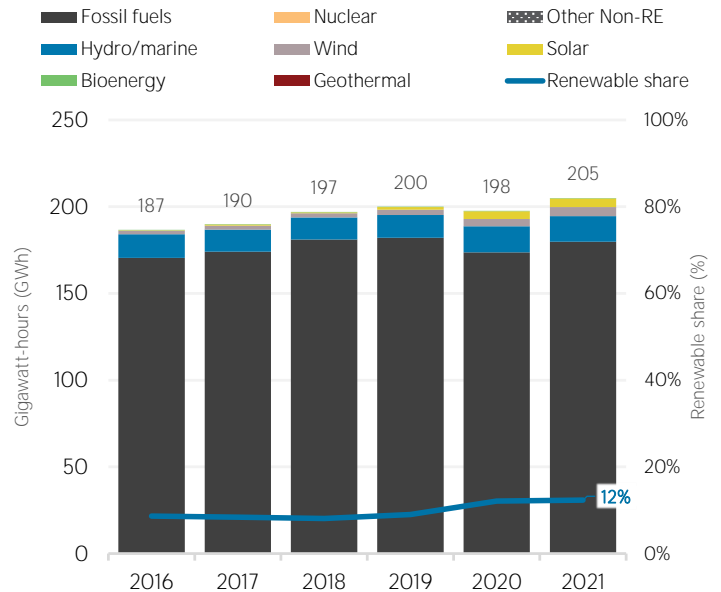
## LATEST POLICIES, PROGRAMMES AND LEGISLATION

1 Red Sea Wind Energy - Green Egypt — 2023

2 Nationally Determined Contribution (NDC) to the Paris Agreement (2022 Update): Egypt — 2022

3 The Egyptian Natural Gaz Holding Company Sustainability Policy — 2020

4 Non- ducted air conditioners and heat pumps- Testing and rating for performance (standard 4814 / 2018) — 2019

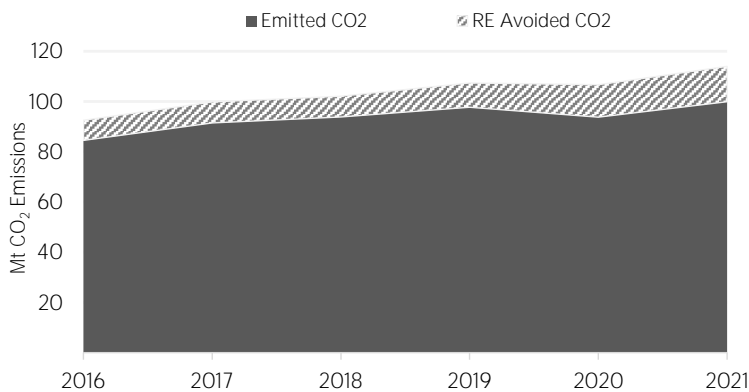5 Prime Minister Decree No. 1129 of 2019 — 2019

ENERGY AND EMISSIONS

Energy-related CO_2 emissions by sector
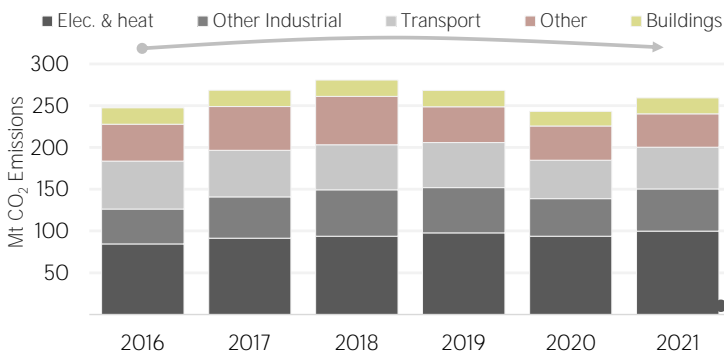
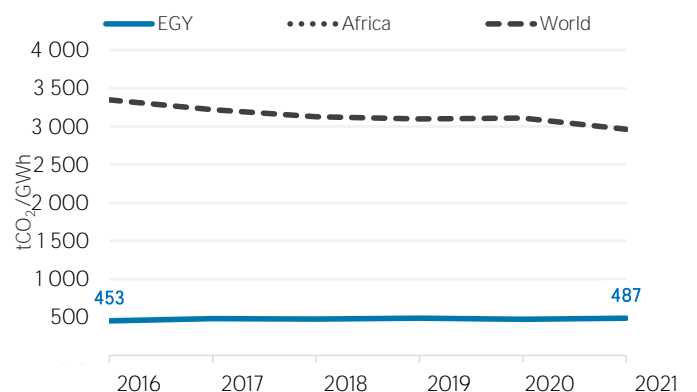### Elec. & heat generation CO_2 emissions in
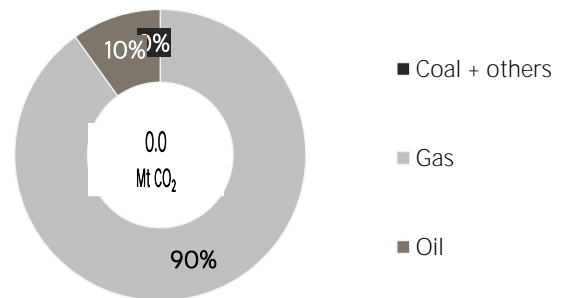
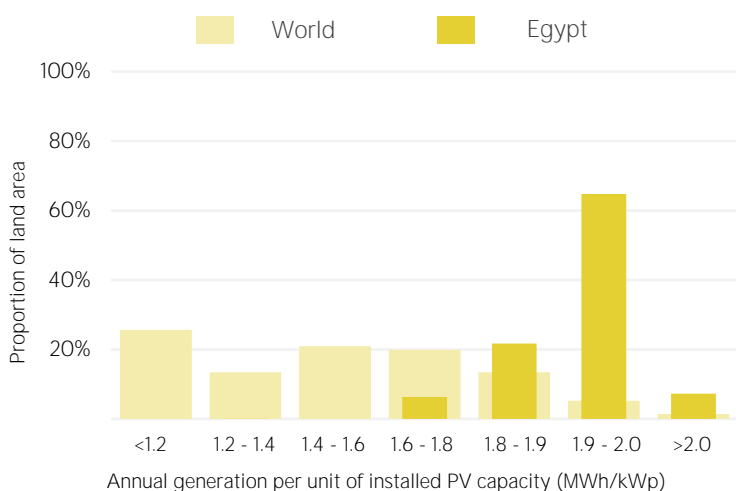### Avoided emissions from renewable elec. & heat

Avoided emissions based on fossil fuel mix used for power
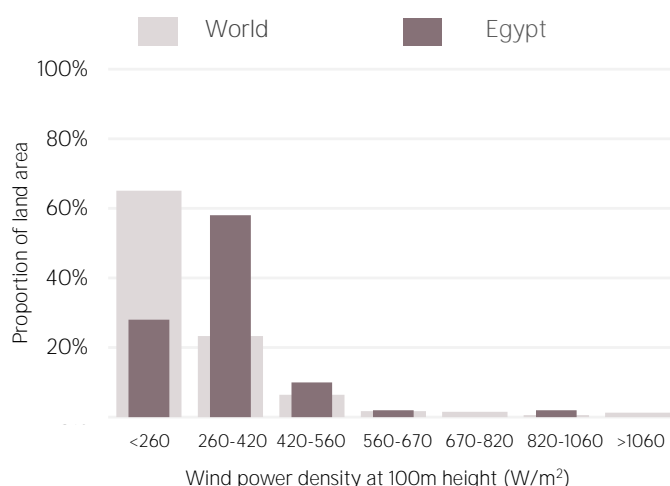
CO_2 emission factor for elec. & heat generation

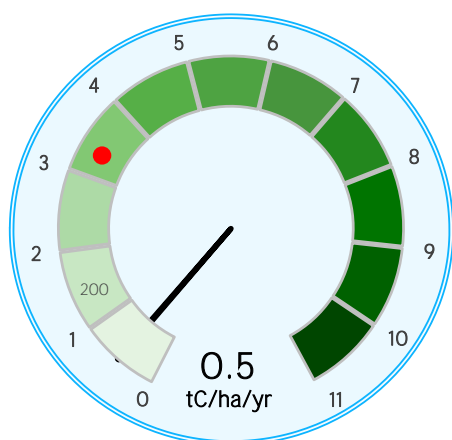*Calculated by dividing power sector emissions by elec. + heat gen.*

Distribution of solar potential

Legend: World (light) — Egypt (dark)

Proportion of land area (y-axis: 0% to 100%)

Annual generation per unit of installed PV capacity (MWh/kWp)
Categories: <1.2, 1.2 - 1.4, 1.4 - 1.6, 1.6 - 1.8, 1.8 - 1.9, 1.9 - 2.0, >2.0

Distribution of wind potential

Legend: World (light) — Egypt (dark)

Proportion of land area (y-axis: 0% to 100%)

Wind power density at 100m height (W/m²)
Categories: <260, 260-420, 420-560, 560-670, 670-820, 820-1060, >1060

Biomass potential: net primary production

0.5 tC/ha/yr

● = Global average of 3-4 tC/ha/yr

Indicators of renewable resource potential

Solar PV: Solar resource potential has been divided into seven classes, each representing a range of annual PV output per unit of capacity (kWh/kWp/yr). The bar chart shows the proportion of a country's land area in each of these classes and the global distribution of land area across the classes (for comparison).

Onshore wind: Potential wind power density (W/m²) is shown in the seven classes used by NREL, measured at a height of 100m. The bar chart shows the distribution of the country's land area in each of these classes compared to the global distribution of wind resources. Areas in the third class or above are considered to be a good wind resource.

Biomass: Net primary production (NPP) is the amount of carbon fixed by plants and accumulated as biomass each year. It is a basic measure of biomass productivity. The chart shows the average NPP in the country (tC/ha/yr), compared to the global average NPP of 3-4 tonnes of carbon