

COUNTRY INDICATORS AND SDGS



TOTAL ENERGY SUPPLY (TES)

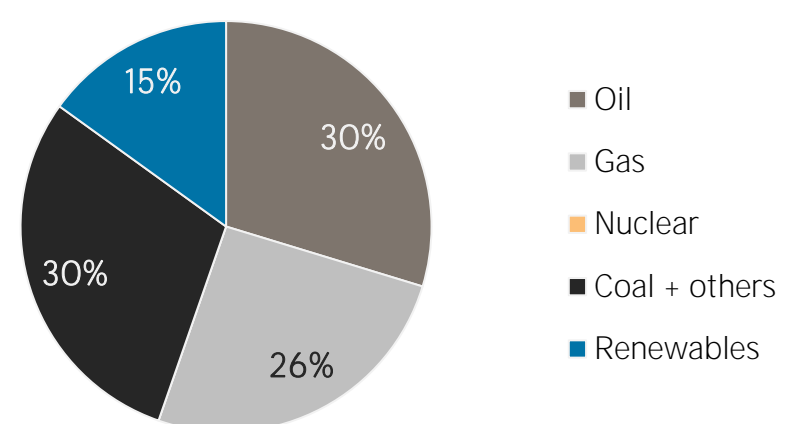
Total Energy Supply (TES)	2014	2019
Non-renewable (TJ)	4 580 872	5 142 111
Renewable (TJ)	591 682	911 054
Total (TJ)	5 172 554	6 053 165
Renewable share (%)	11	15

Growth in TES	2014-19	2018-19
Non-renewable (%)	+12.3	-1.7
Renewable (%)	+54.0	+2.6
Total (%)	+17.0	-1.1

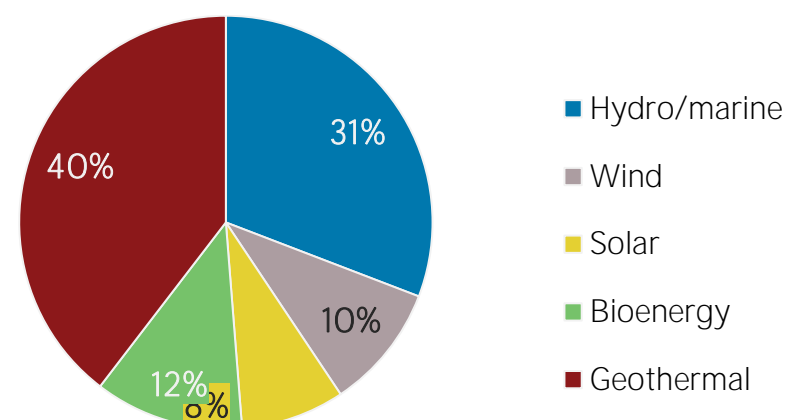
Primary energy trade	2014	2019
Imports (TJ)	4 263 996	4 840 258
Exports (TJ)	330 282	402 538
Net trade (TJ)	-3 933 714	-4 437 720

Imports (% of supply)	82	80
Exports (% of production)	24	22
Energy self-sufficiency (%)	27	30

Total energy supply in 2019

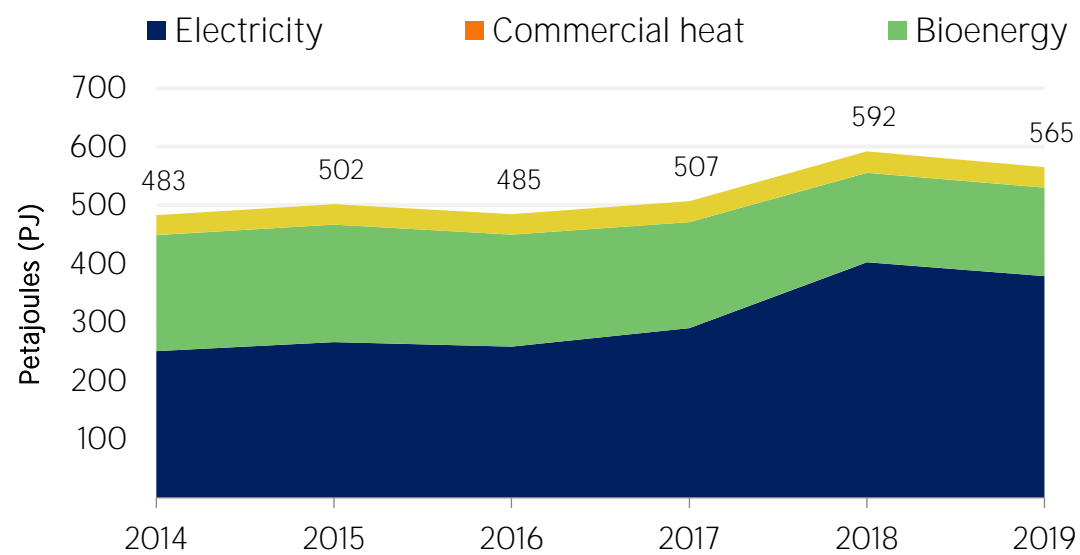


Renewable energy supply in 2019

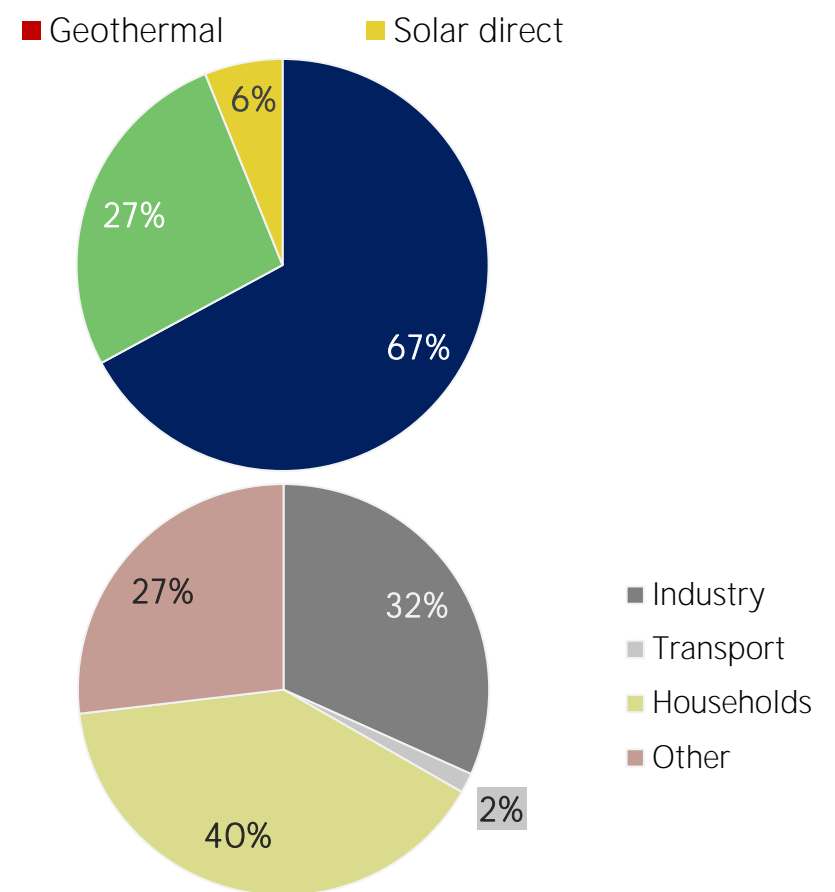


RENEWABLE ENERGY CONSUMPTION (TFEC)

Renewable TFEC trend



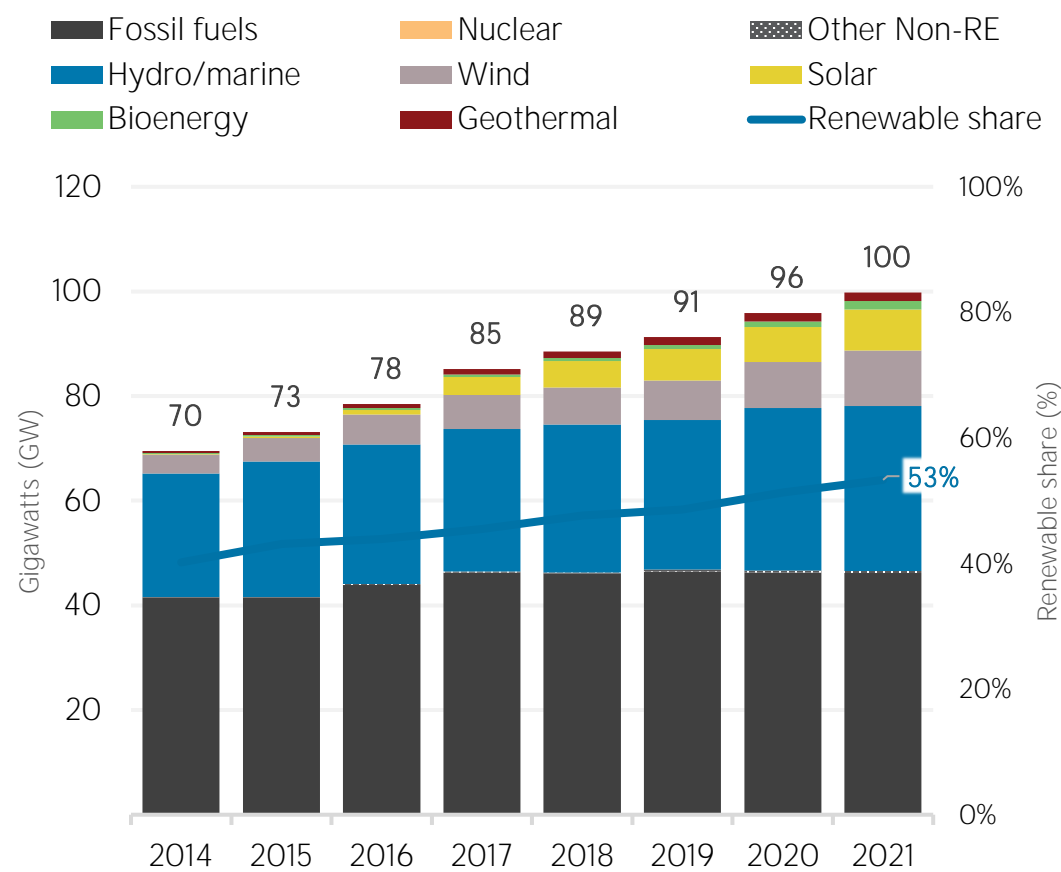
Renewable energy consumption in 2019



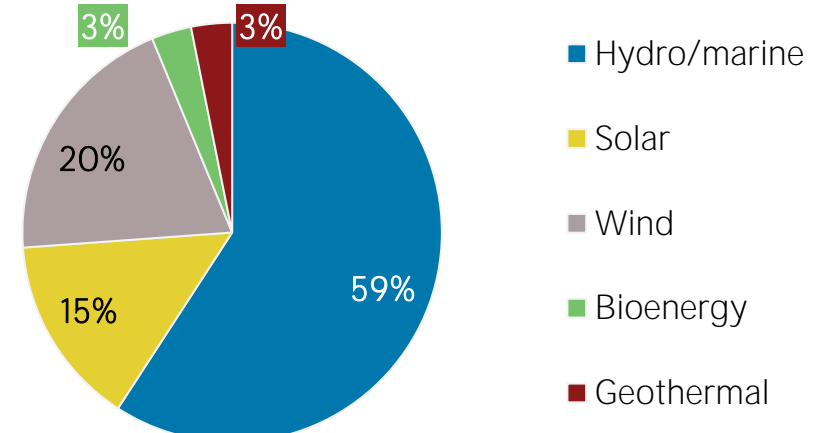
Consumption by sector	2014	2019
Industry (TJ)	128 649	179 269
Transport (TJ)	6 861	8 853
Households (TJ)	253 967	225 138
Other (TJ)	93 362	151 806

ELECTRICITY CAPACITY

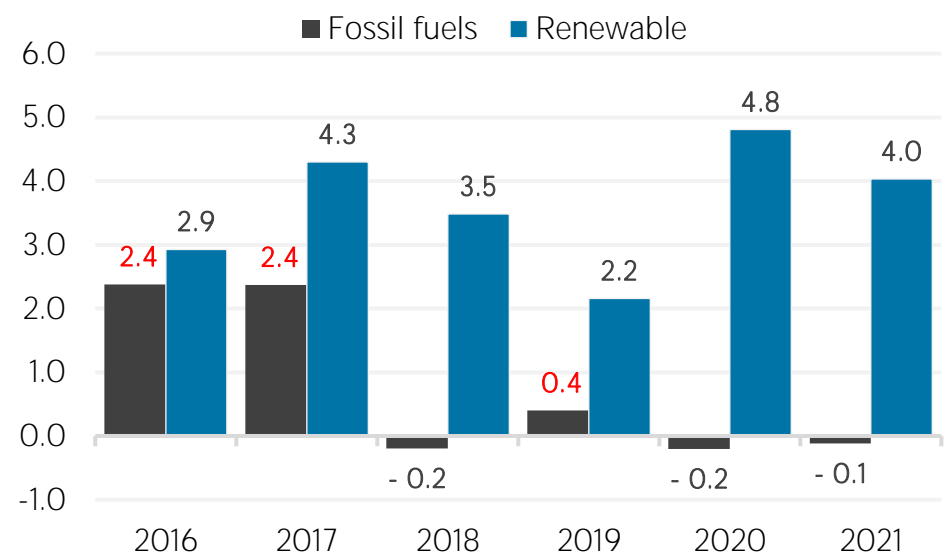
Installed capacity trend



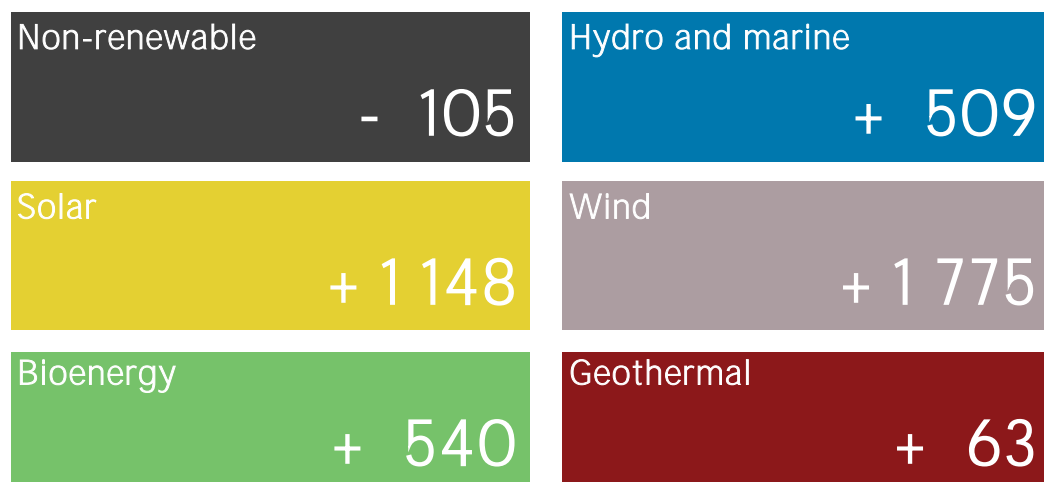
Renewable capacity in 2021



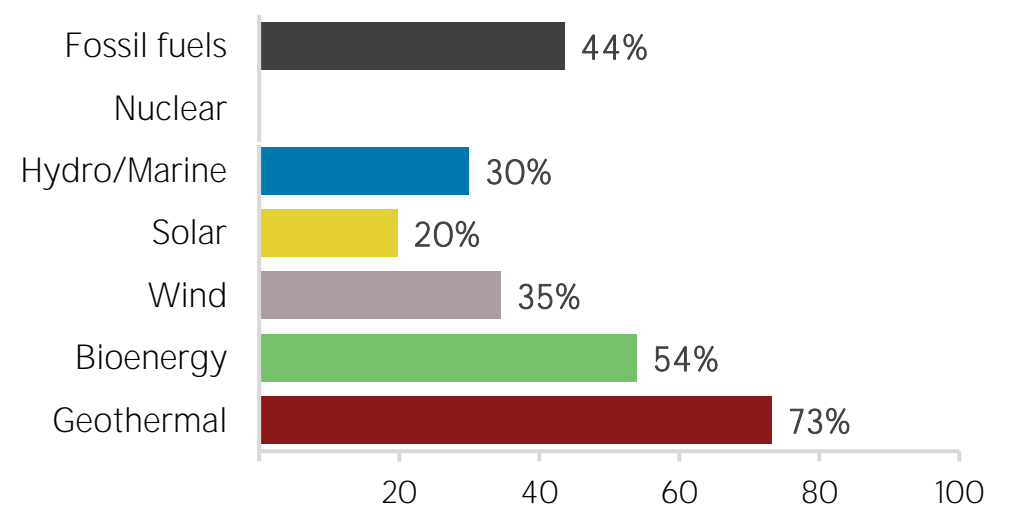
Net capacity change (GW)



Net capacity change in 2021 (MW)

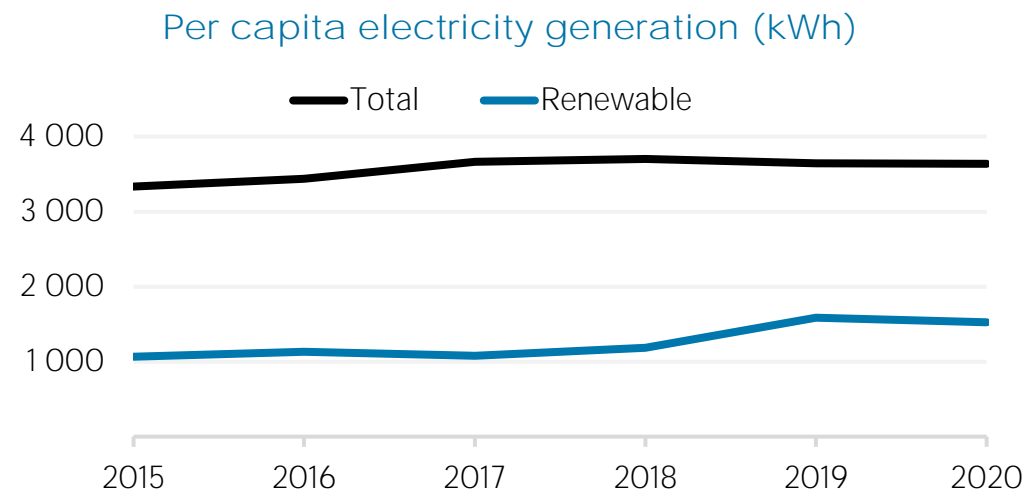


Capacity utilisation in 2020 (%)

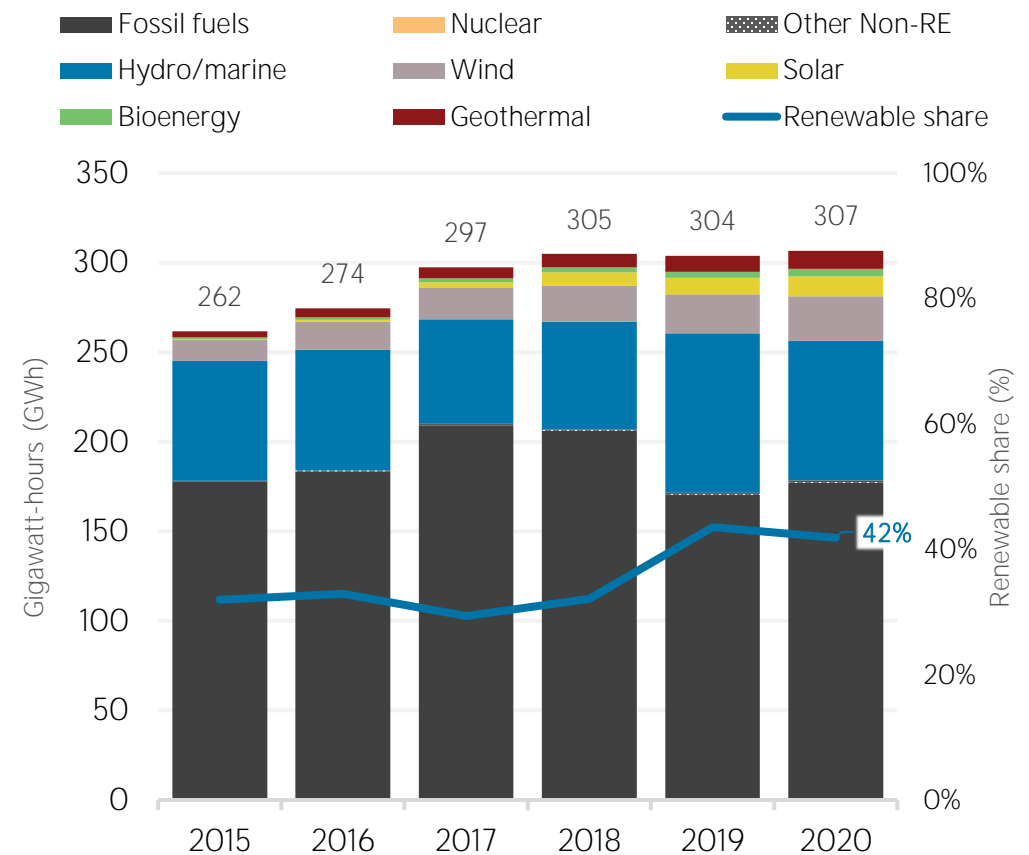


ELECTRICITY GENERATION

Generation in 2020	GWh	%
Non-renewable	178 358	58
Renewable	128 348	42
Hydro and marine	78 094	25
Solar	10 953	4
Wind	24 828	8
Bioenergy	4 445	1
Geothermal	10 028	3
Total	306 706	100



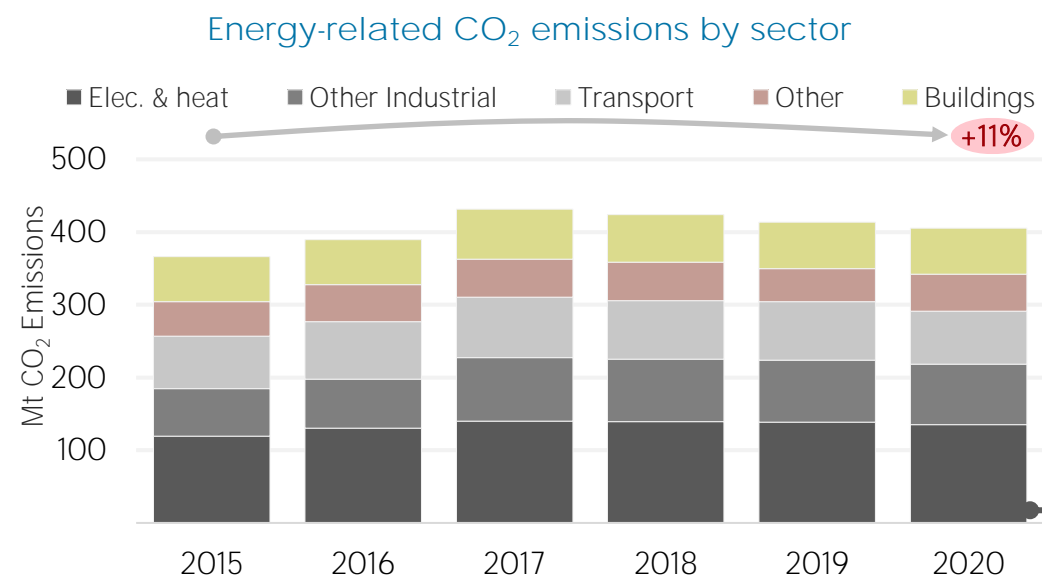
Electricity generation trend



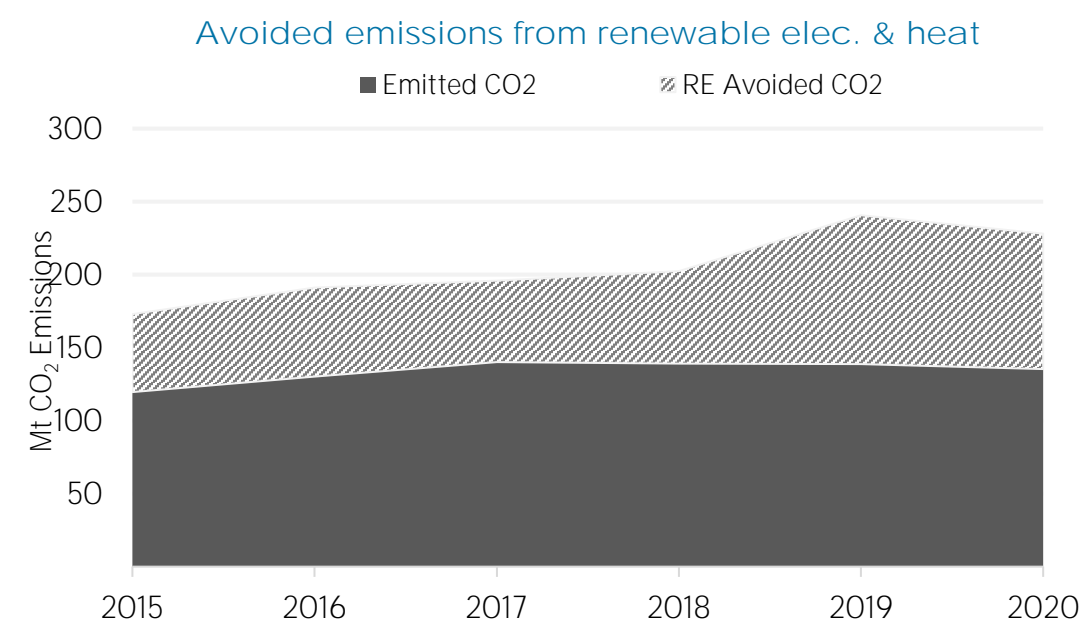
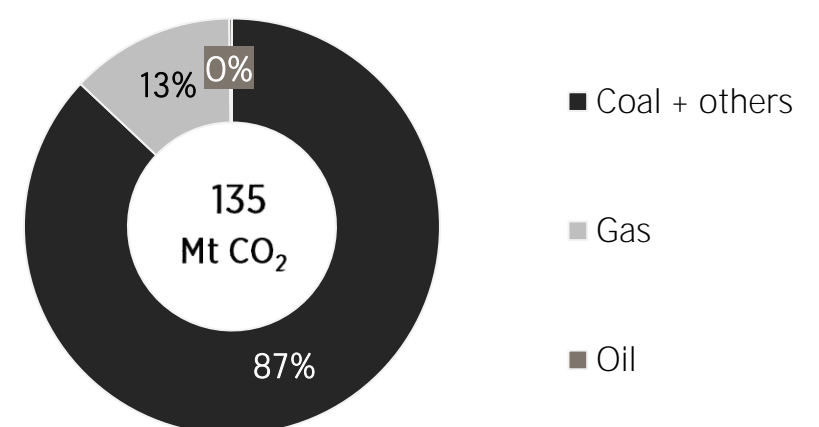
LATEST POLICIES, PROGRAMMES AND LEGISLATION

- 1 Motor Vehicle Tax Law 2021
- 2 11th Development Plan 2020
- 3 Energy Efficiency Improvement Target for Public Buildings 2020
- 4 Extension of Renewable Energy Support Scheme (YEKDEM) 2020
- 5 Amendment on Energy Efficiency Law 2019

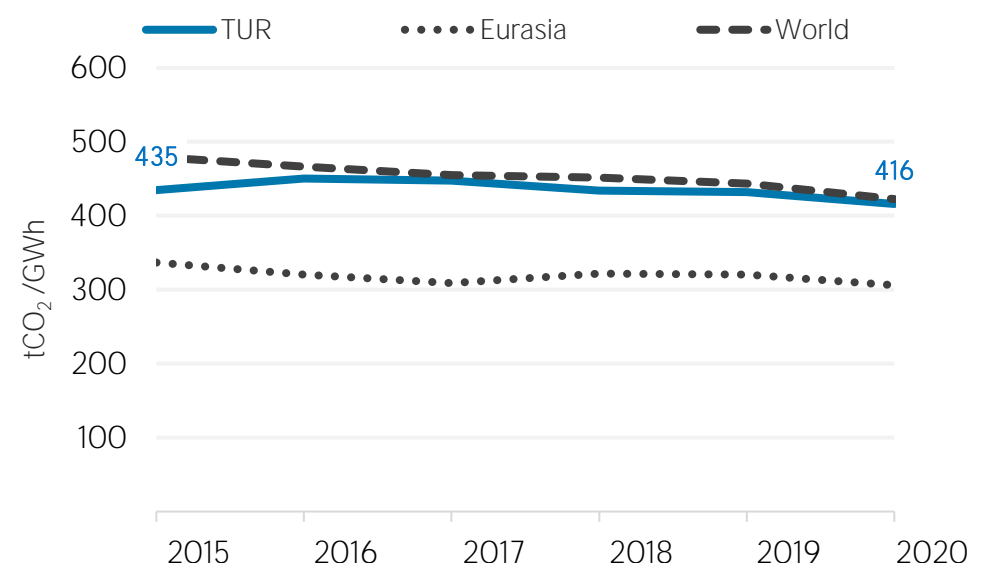
ENERGY AND EMISSIONS



Elec. & heat generation CO₂ emissions in



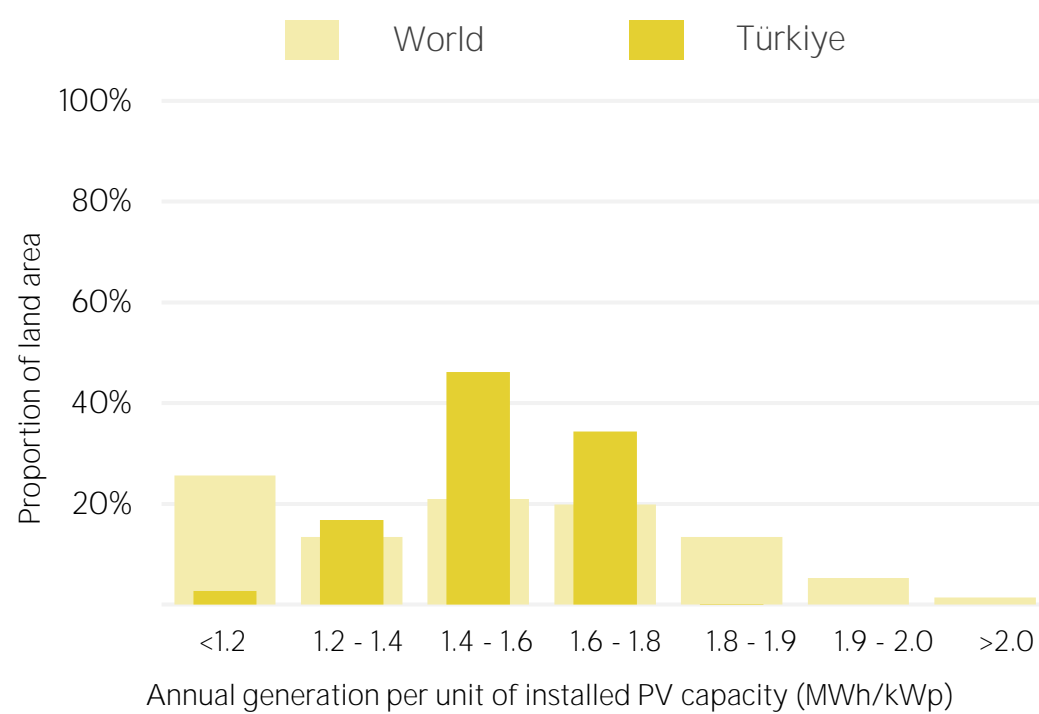
CO₂ emission factor for elec. & heat generation



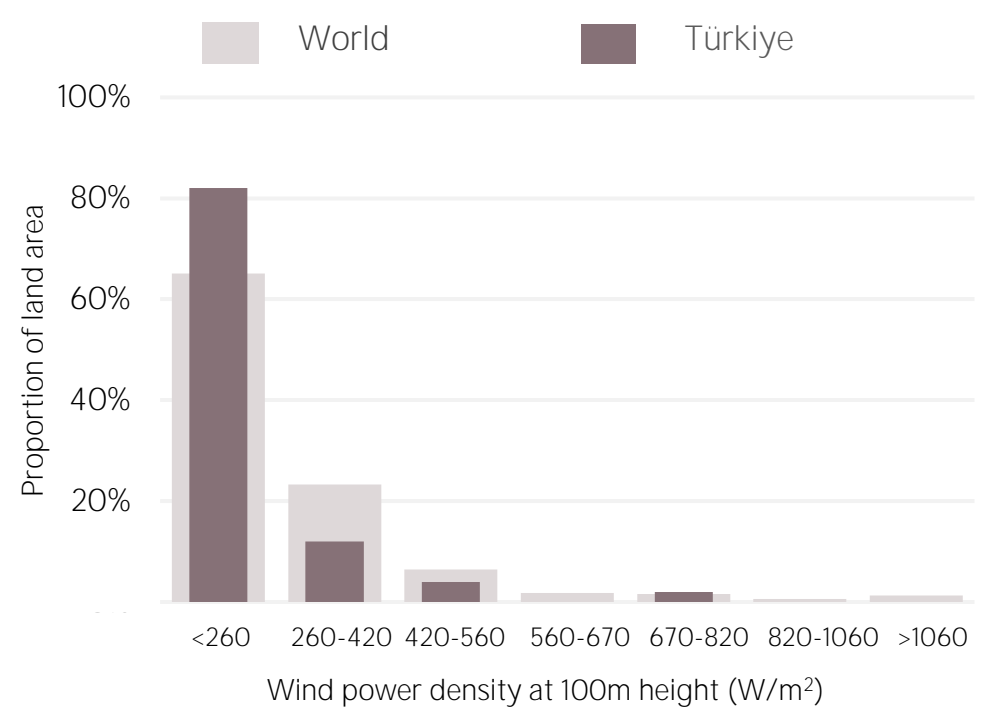
Avoided emissions based on fossil fuel mix used for power

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

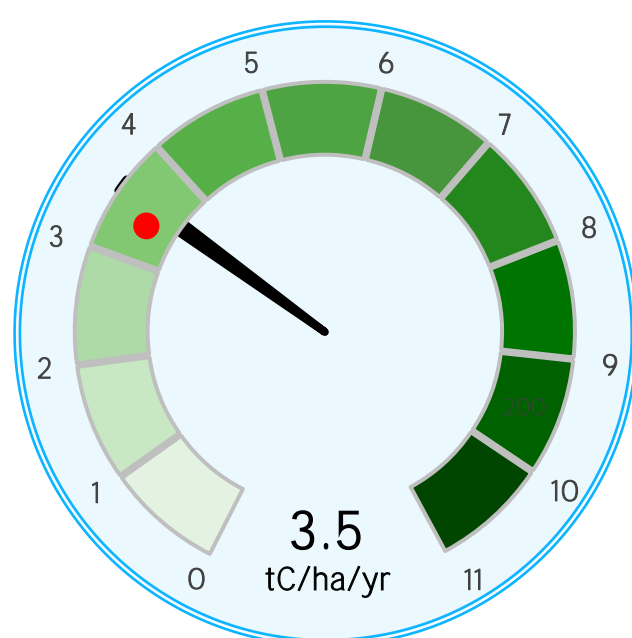
Distribution of solar potential



Distribution of wind potential



Biomass potential: net primary production



● = 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

Sources: IRENA statistics, plus data from the following sources: UN SDG Database (original sources: WHO; World Bank; IEA; IRENA; and UNSD); UN World Population Prospects; UNSD Energy Balances; UN COMTRADE; World Bank World Development Indicators; EDGAR; REN21 Global Status Report; IEA-IRENA Joint Policies and Measures Database; IRENA Global Atlas; and World Bank Global Solar Atlas and Global Wind Atlas.

Additional notes: Capacity per capita and public investments SDGs only apply to developing areas. Energy self-sufficiency has been defined as total primary energy production divided by total primary energy supply. Energy trade includes all commodities in Chapter 27 of the Harmonised System (HS). Capacity utilisation is calculated as annual generation divided by year-end capacity x 8,760h/year. Avoided emissions from renewable power is calculated as renewable generation divided by fossil fuel generation multiplied by reported emissions from the power sector. This assumes that, if renewable power did not exist, fossil fuels would be used in its place to generate the same amount of power and using the same mix of fossil fuels. In countries and years where no fossil fuel generation occurs, an average fossil fuel emission factor has been used to calculate the avoided emissions.

These profiles have been produced to provide an overview of developments in renewable energy in different countries and areas. The IRENA statistics team would welcome comments and feedback on its structure and content, which can be sent to statistics@irena.org.

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