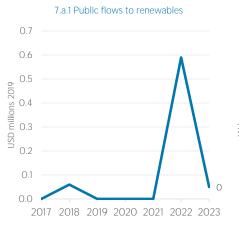
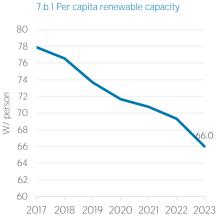
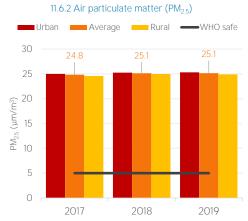
# Syrian Arab Republic



#### **COUNTRY INDICATORS AND SDGS** ■7.1.1 Access to electricity (% population) 7.3.1 Energy intensity GDP per capita —8.1.1 Real GDP growth rate 7.1.2 Access to clean cooking (% population) ■7.2.1 Renewable energy (% TFEC) 60 2% 6.0 100% 58 88% 5.0 0% 56 89% 80% -2% 4.0 ddd 1202 3.0 CSD 1.0 1.0 4.0 MJ/USD GDP 2021 PPP 54 -4% 60% 52 50 -6% 40% 48 -8% 20% 0.0 -10% 2017 208 208 202 202 202 202 202 44 0% 2022 2017 2018 2019 2020 2021 2022 2023 2017 2018 2019 2020 2021





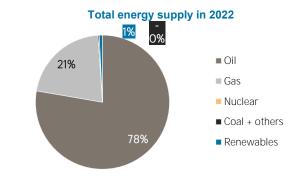


### **TOTAL ENERGY SUPPLY (TES)**

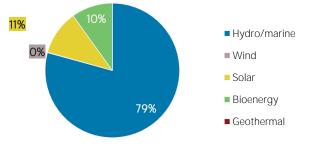
Total Energy Supply (TES)	2017	2022
Non-renewable (TJ)	455 857	425 600
Renewable (TJ)	2 961	3 367
Total (TJ)	458 818	428 967
Renewable share (%)	1	1

Growth in TES	2017-22	2021-22
Non-renewable (%)	-6.6	+18.2
Renewable (%)	+13.7	-0.2
Total (%)	-6.5	+18.0

Primary energy trade	2017	2022
Imports (TJ)	339 110	290 101
Exports (TJ)	36 917	27 471
Net trade (TJ)	- 302 193	- 262 630
Imports (% of supply)	74	68
Exports (% of production)	21	15
Energy self-sufficiency (%)	38	42



# Renewable energy supply in 2022



### **RENEWABLE ENERGY CONSUMPTION (TFEC)**

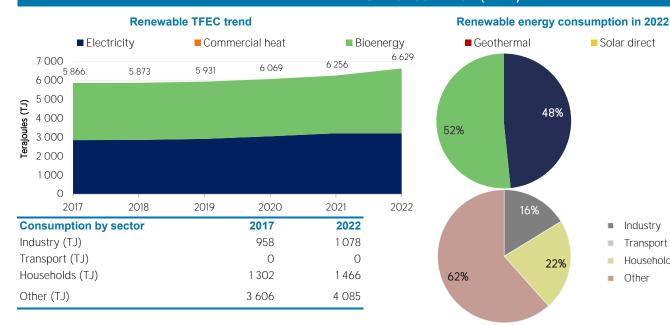
■ Solar direct

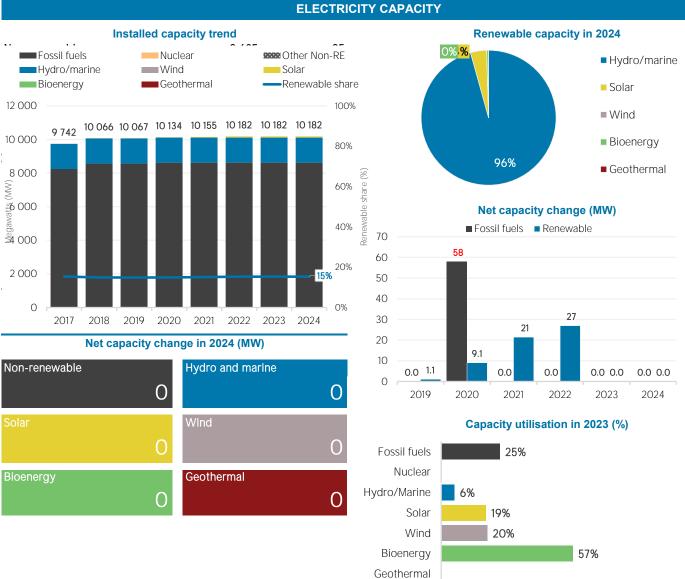
Industry

Transport

Other

Households





0

20

40

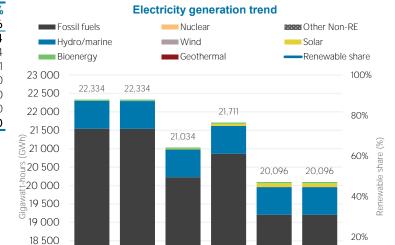
60

80

100

#### **ELECTRICITY GENERATION**

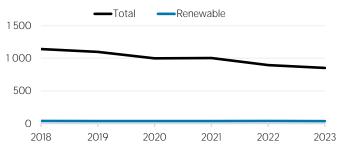
Generation in 2023	GWh	%
Non-renewable	19 205	96
Renewable	891	4
Hydro and marine	754	4
Solar	102	1
Wind	1	0
Bioenergy	33	0
Geothermal	0	0
Total	20 096	100



0%

2023

## Per capita electricity generation (kWh)



#### LATEST POLICIES, PROGRAMMES AND LEGISLATION

18 000

17 500

2018

2019

2020

2021

2022

1 First NDC of Syrian Arab Republic 2021

2 Law 03 on Energy Conservation 2009

3 Türkiye - Syria Free Trade Agreement 2007

4

5

2

2018

2019

0.0

#### **ENERGY AND EMISSIONS** Elec. & heat generation CO<sub>2</sub> emissions in CO<sub>2</sub> emissions by sector ■ Industrial Combustion ■ Transport ■ Elec. & heat ■ Processes Buildings ■ Fuel Exploitation ■ Agriculture ■Waste 0% 35 -11% 21% ■ Coal + others 30 Mt CO2 Emissions 25 11 ■ Gas 20 Mt CO<sub>2</sub> 15 10 ■ Oil 5 0.0 2023 2018 2019 2020 2021 2022 Avoided emissions from renewable elec. & heat CO<sub>2</sub> emission factor for elec. & heat generation 14 ■ Emitted CO2 RE Avoided CO2 •••••Middle East **--** • World 700 12 558 600 533 10 500 Mt CO2 Emissions 8 tCO<sub>2</sub> /GWh 400 6 300 4 200

2023

100

0.0

2018

Avoided emissions based on fossil fuel mix used for power

2021

2022

2020

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

2020

2021

2022

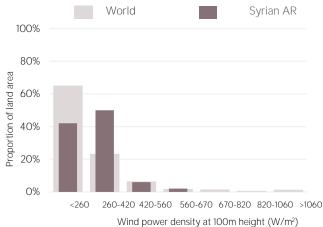
2023

2019

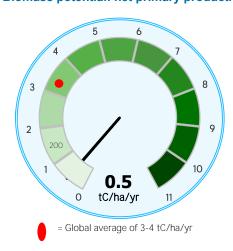
#### RENEWABLE RESOURCE POTENTIAL



#### Distribution of wind potential



#### Biomass potential: net primary production



#### 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 (H5). 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 <a href="statistics@irena.org">statistics@irena.org</a>.

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