Burundi

IRENA
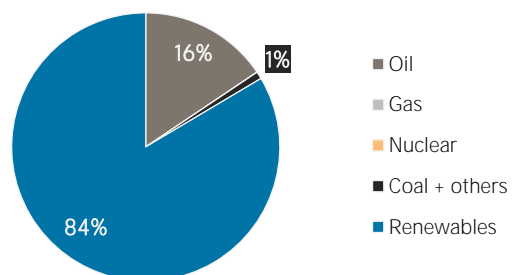International Renewable Energy Agency

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$_{2.5}$)

■ Urban ■ Average ■ Rural ▬ WHO safe

TOTAL ENERGY SUPPLY (TES)

Total Energy Supply (TES)	2016	2021
Non-renewable (TJ)	6 662	11 111
Renewable (TJ)	56 460	56 350
Total (TJ)	63 122	67 462
Renewable share (%)	89	84

Growth in TES	2016-21	2020-21
Non-renewable (%)	+66.8	-0.8
Renewable (%)	-0.2	-0.2
Total (%)	+6.9	-0.3

Primary energy trade	2016	2021
Imports (TJ)	6 997	11 256
Exports (TJ)	9	0
Net trade (TJ)	- 6 988	- 11 256
Imports (% of supply)	11	17
Exports (% of production)	0	0
Energy self-sufficiency (%)	89	83

Total energy supply in 2021

■ Oil
■ Gas
■ Nuclear
■ Coal + others
■ Renewables

Renewable energy supply in 2021

■ Hydro/marine
■ Wind
■ Solar
■ Bioenergy
■ Geothermal
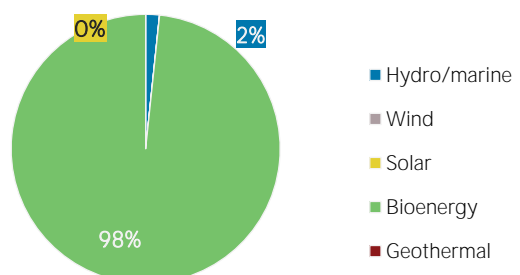
RENEWABLE ENERGY CONSUMPTION (TFEC)

Renewable TFEC trend

Legend: Electricity, Commercial heat, Bioenergy

Values: 57, 57, 57, 57, 57, 57 (2016–2021)

Petajoules (PJ), years 2016–2021

Renewable energy consumption in 2021

Legend: Geothermal, Solar direct

98%, 1%, 13%, 86%

Industry, Transport, Households, Other
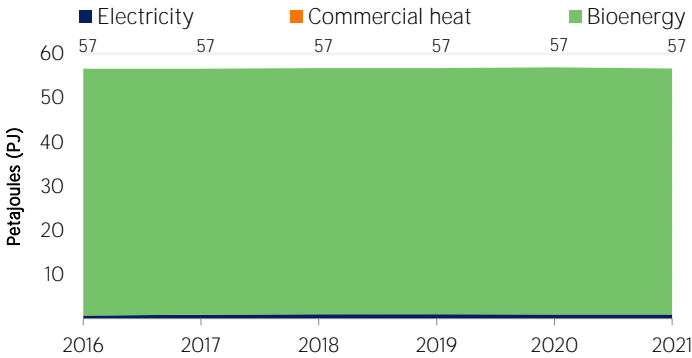
Consumption by sector	2016	2021
Industry (TJ)	745	698
Transport (TJ)	0	0
Households (TJ)	48 453	48 575
Other (TJ)	7 417	7 378
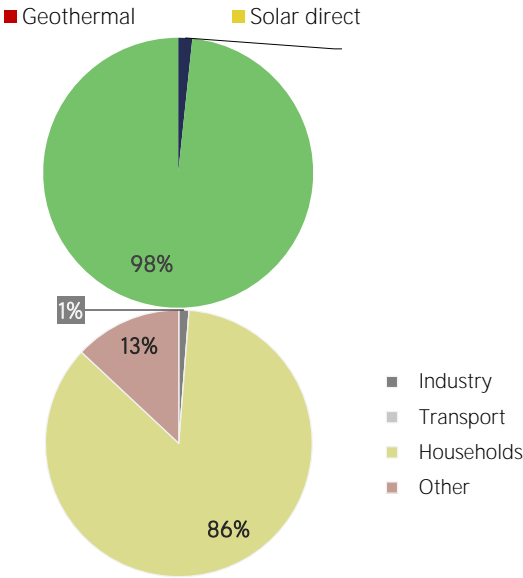
ELECTRICITY CAPACITY

Installed capacity trend

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

Values: 0.1 (2016), 0.1, 0.1, 0.1, 0.1, 0.1 (2021), 0.1 (2022), 0.1 (2023)

Renewable share: 60%

Gigawatts (GW), Renewable share (%), years 2016–2023
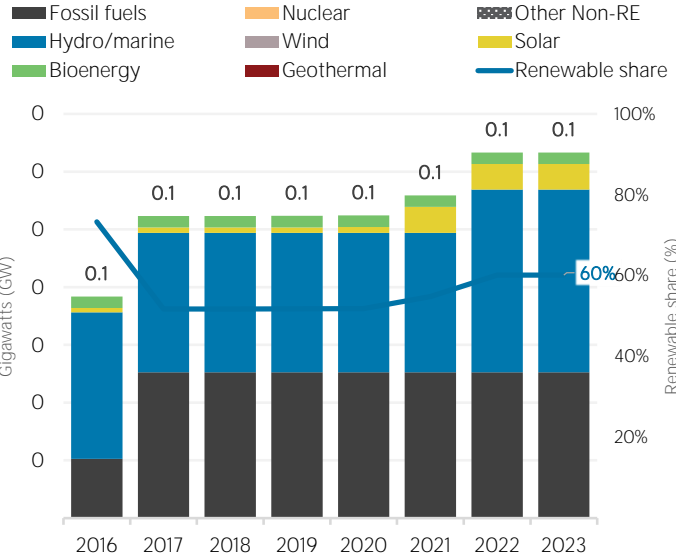
Renewable capacity in 2023

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

83%, 12%, 5%
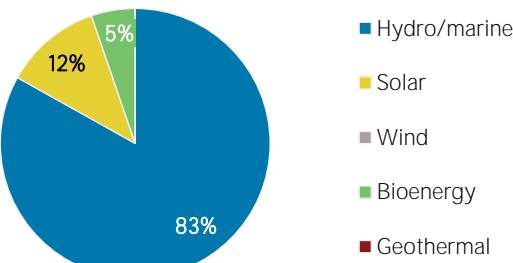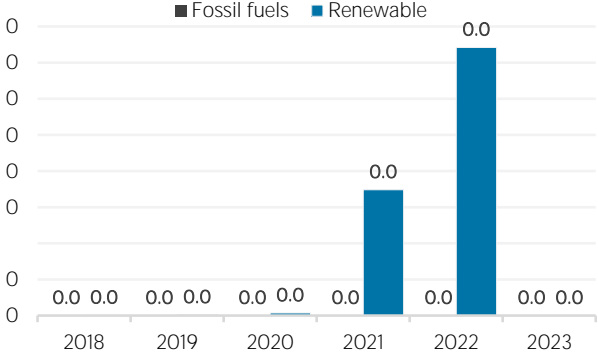
Net capacity change in 2023 (MW)

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

Net capacity change (GW)

Legend: Fossil fuels, Renewable

0.0 values across 2018–2023
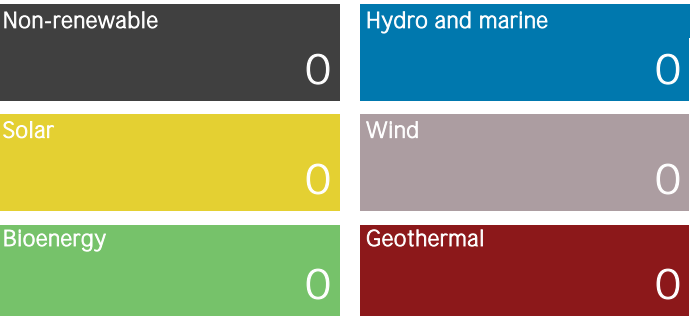
Capacity utilisation in 2022 (%)

Fossil fuels	59%
Nuclear	
Hydro/Marine	52%
Solar	3%
Wind	
Bioenergy	16%
Geothermal	
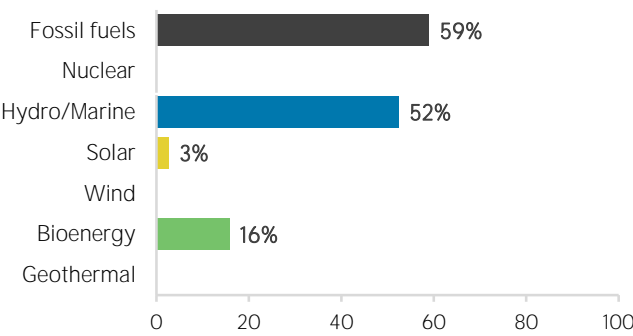
ELECTRICITY GENERATION

Generation in 2022	GWh	%
Non-renewable	261	50
Renewable	264	50
Hydro and marine	256	49
Solar	2	0
Wind	0	0
Bioenergy	6	1
Geothermal	0	0
Total	525	100

Per capita electricity generation (kWh)
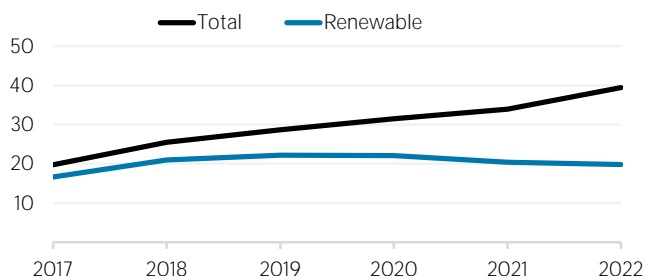
Electricity generation trend
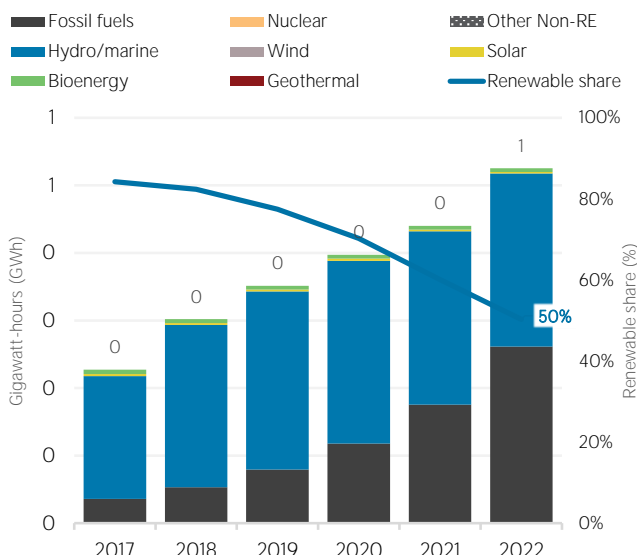

LATEST POLICIES, PROGRAMMES AND LEGISLATION

1 Decentralized Rural Electrification Strategy (2015-2017) **2015**

2 Energy Strategy and Action Plan 2011 **2011**

3 Vision Burundi 2025 **2011**

4 National Adaptation Programme of Action (NAPA) **2005**

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ENERGY AND EMISSIONS

CO_2 emissions by sector

Elec. & heat generation CO_2 emissions in
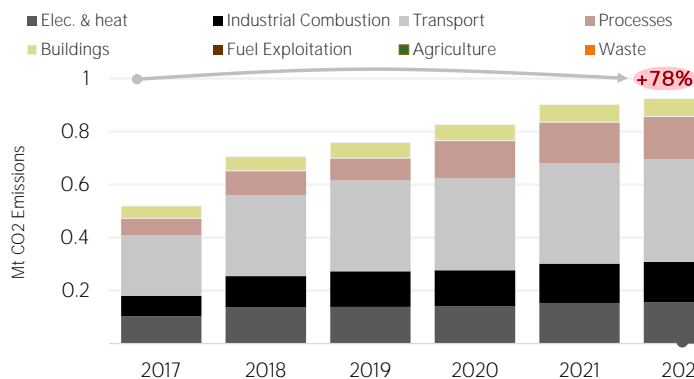
Avoided emissions from renewable elec. & heat
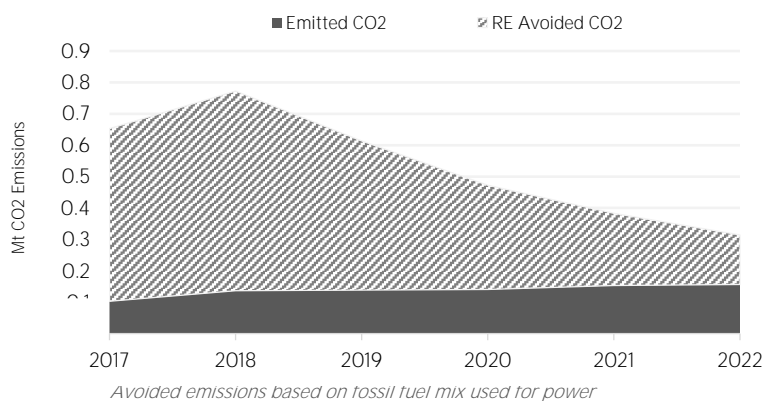
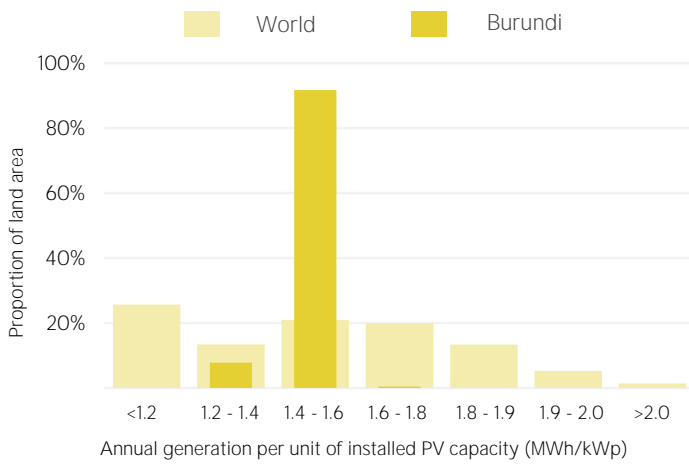*Avoided emissions based on fossil fuel mix used for power*
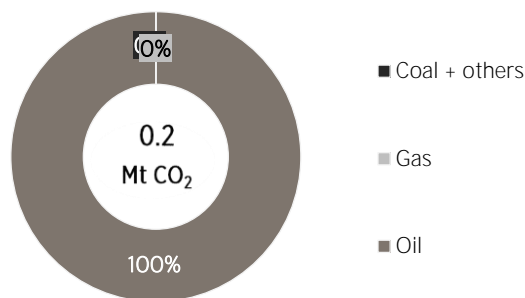
CO_2 emission factor for elec. & heat generation
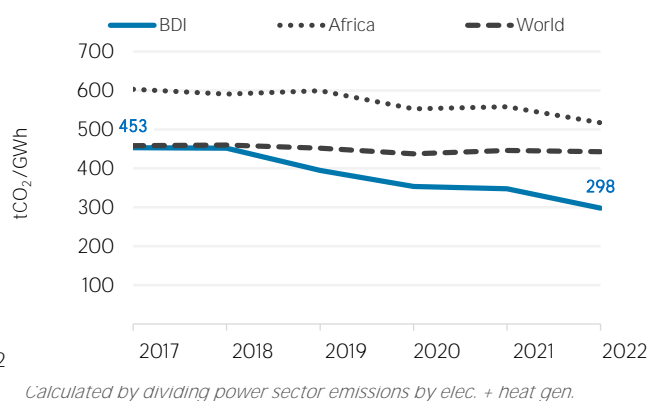
Calculated by dividing power sector emissions by elec. + heat gen.
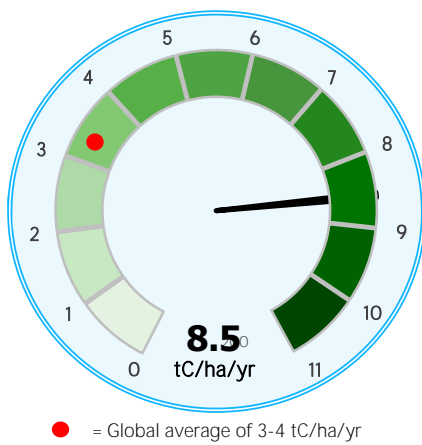
Distribution of solar potential

World   Burundi

Proportion of land area

100%
80%
60%
40%
20%

<1.2   1.2 - 1.4   1.4 - 1.6   1.6 - 1.8   1.8 - 1.9   1.9 - 2.0   >2.0

Annual generation per unit of installed PV capacity (MWh/kWp)

Distribution of wind potential

World   Burundi

Proportion of land area

100%
80%
60%
40%
20%

<260   260-420   420-560   560-670   670-820   820-1060   >1060

Wind power density at 100m height (W/m^2)
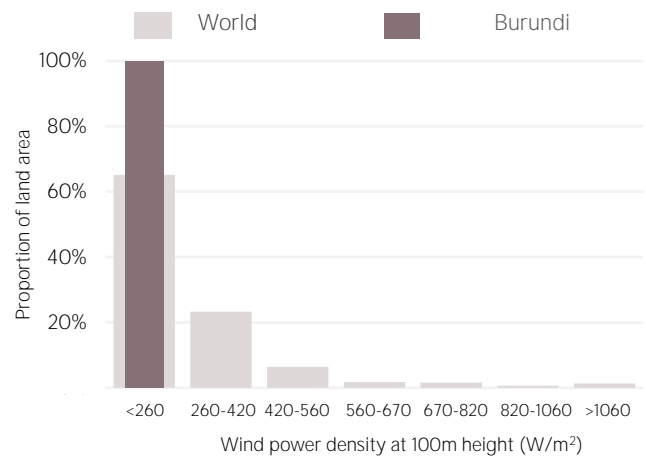
Biomass potential: net primary production

5   6
4   7
3   8
2   9
1   10
0   11

8.5
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/m^2) 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