

SUSTAINABLE DEVELOPMENT GOAL 7: ENERGY INDICATORS (2018)

Renewable energy (% of TFEC)	10.7	Access to electricity (% of population)	100.0
Energy efficiency (MJ per \$1 of GDP)	1.4	Access to clean cooking (% of population)	>95
Public flows renewables (2018 USD M)	n.a.	Per capita renewable capacity (W/person)	n.a.

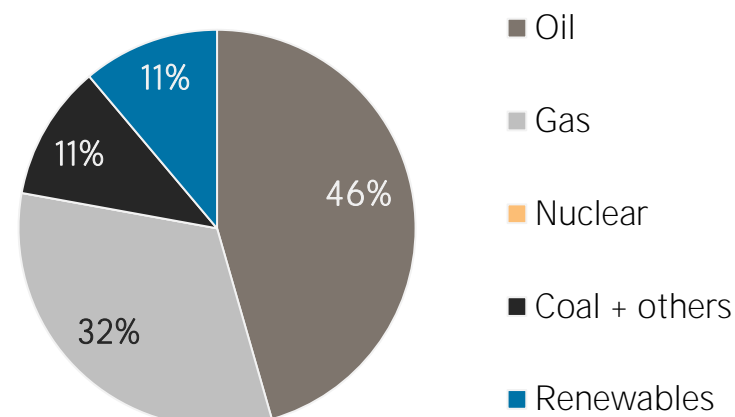
TOTAL PRIMARY ENERGY SUPPLY (TPES)

TPES	2013	2018
Non-renewable (TJ)	509 323	516 834
Renewable (TJ)	39 333	64 738
Total (TJ)	548 655	581 572
Renewable share (%)	7	11

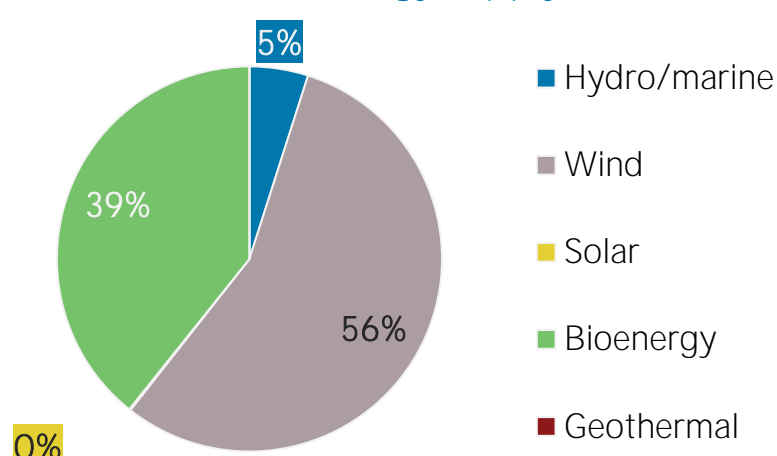
Growth in TPES	2013-18	2017-18
Non-renewable (%)	+1.5	-0.4
Renewable (%)	+64.6	+10.2
Total (%)	+6.0	+0.7

Primary energy trade	2013	2018
Imports (TJ)	571 908	501 650
Exports (TJ)	53 309	77 459
Net trade (TJ)	- 518 599	- 424 191
Imports (% of supply)	104	86
Exports (% of production)	55	36
Energy self-sufficiency (%)	18	37
Net trade (USD million)	- 8 059	- 5 696
Net trade (% of GDP)	-3.4	-1.5

Total primary energy supply in 2018



Renewable energy supply in 2018



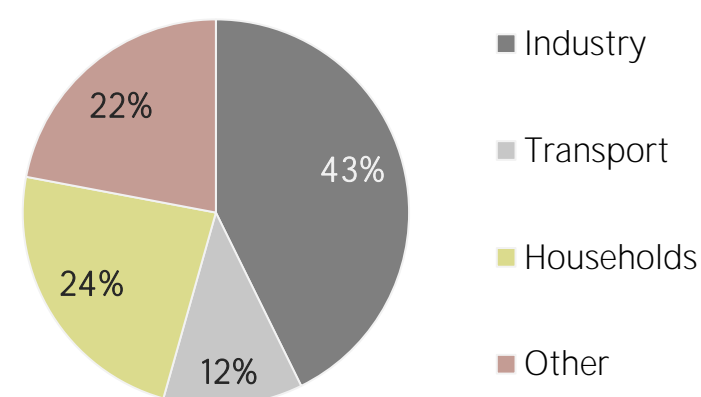
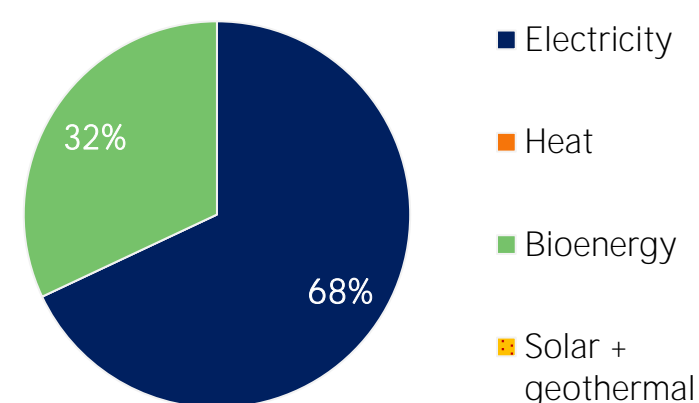
RENEWABLE ENERGY CONSUMPTION

Consumption by source	2013	2018
Electricity (TJ)	22 114	37 897
Heat (TJ)	0	0
Bioenergy (TJ)	12 136	17 823
Solar + geothermal (TJ)	0	0
Total (TJ)	34 250	55 720
Electricity share (%)	65	68

Consumption growth	2013-18	2017-18
Renewable electricity (%)	+71.4	+17.9
Other renewables (%)	+46.9	-6.0
Total (%)	+62.7	+9.0

Consumption by sector	2013	2018
Industry (TJ)	14 704	23 805
Transport (TJ)	3 058	6 500
Households (TJ)	8 918	13 139
Other (TJ)	7 570	12 277
Renewable share of TFEC	7.4	10.7

Renewable energy consumption in 2018

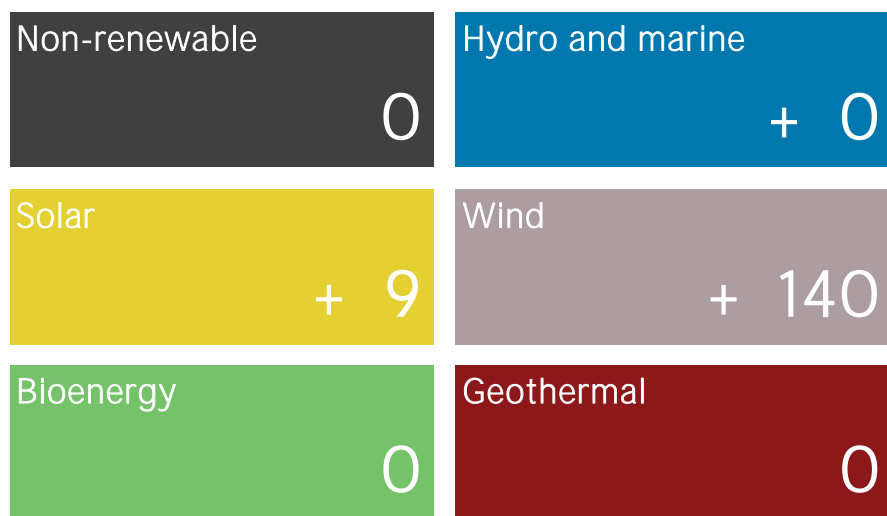


ELECTRICITY CAPACITY AND GENERATION

Capacity in 2020	MW	%
Non-renewable	6 602	58
Renewable	4 685	42
Hydro/marine	237	2
Solar	40	0
Wind	4 300	38
Bioenergy	107	1
Geothermal	0	0
Total	11 286	100

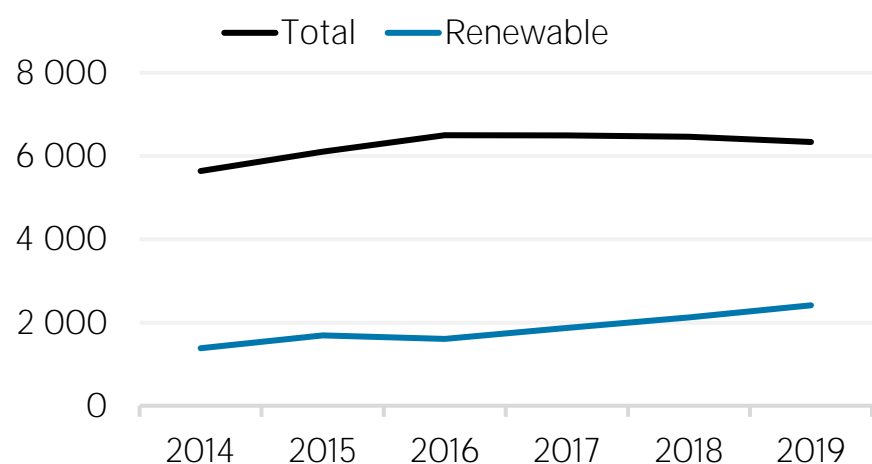
Capacity change (%)	2015-20	2019-20
Non-renewable	- 5	0.0
Renewable	+ 70	+ 3.3
Hydro/marine	+ 0	+ 0.1
Solar	+ 1 609	+ 29.2
Wind	+ 75	+ 3.4
Bioenergy	+ 54	0.0
Geothermal	0	0.0
Total	+ 17	+ 1.3

Net capacity change in 2020 (MW)

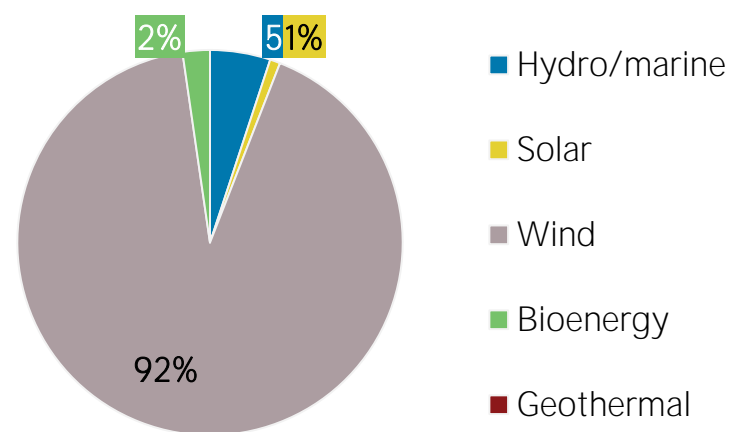


Generation in 2019	GWh	%
Non-renewable	19 161	62
Renewable	11 780	38
Hydro and marine	887	3
Solar	21	0
Wind	10 019	32
Bioenergy	852	3
Geothermal	0	0
Total	30 941	100

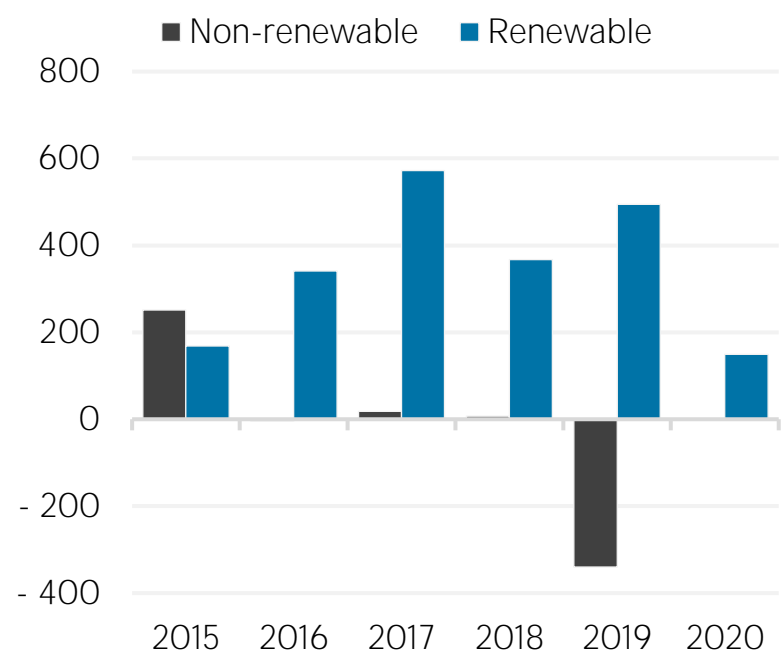
Per capita electricity generation (kWh)



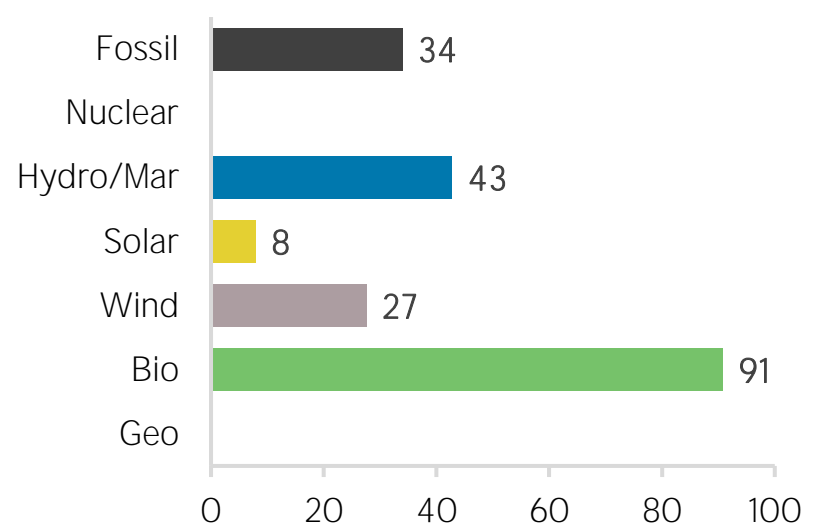
Renewable capacity in 2020



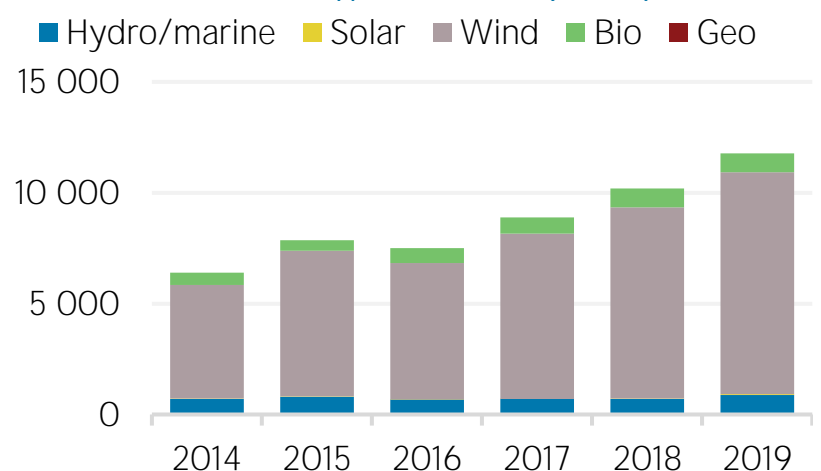
Net capacity change (MW)



Capacity utilisation in 2019 (%)



Renewable generation (GWh)



TARGETS, POLICIES AND MEASURES

Most immediate clean energy targets & NDCs

	year	target
Renewable energy:	2020	16 %
Renewable electricity:	2020	43 %
Renewable capacity:		
Renewable transport:	2020	10 %
Liquid Biofuel blending mandate:		
Other transport targets:		
Renewable heating/cooling:	2020	12 %
Renewable Hydropower		
Off-grid renewable technologies:		
Energy efficiency (Energy):		
Energy efficiency (Electricity):		

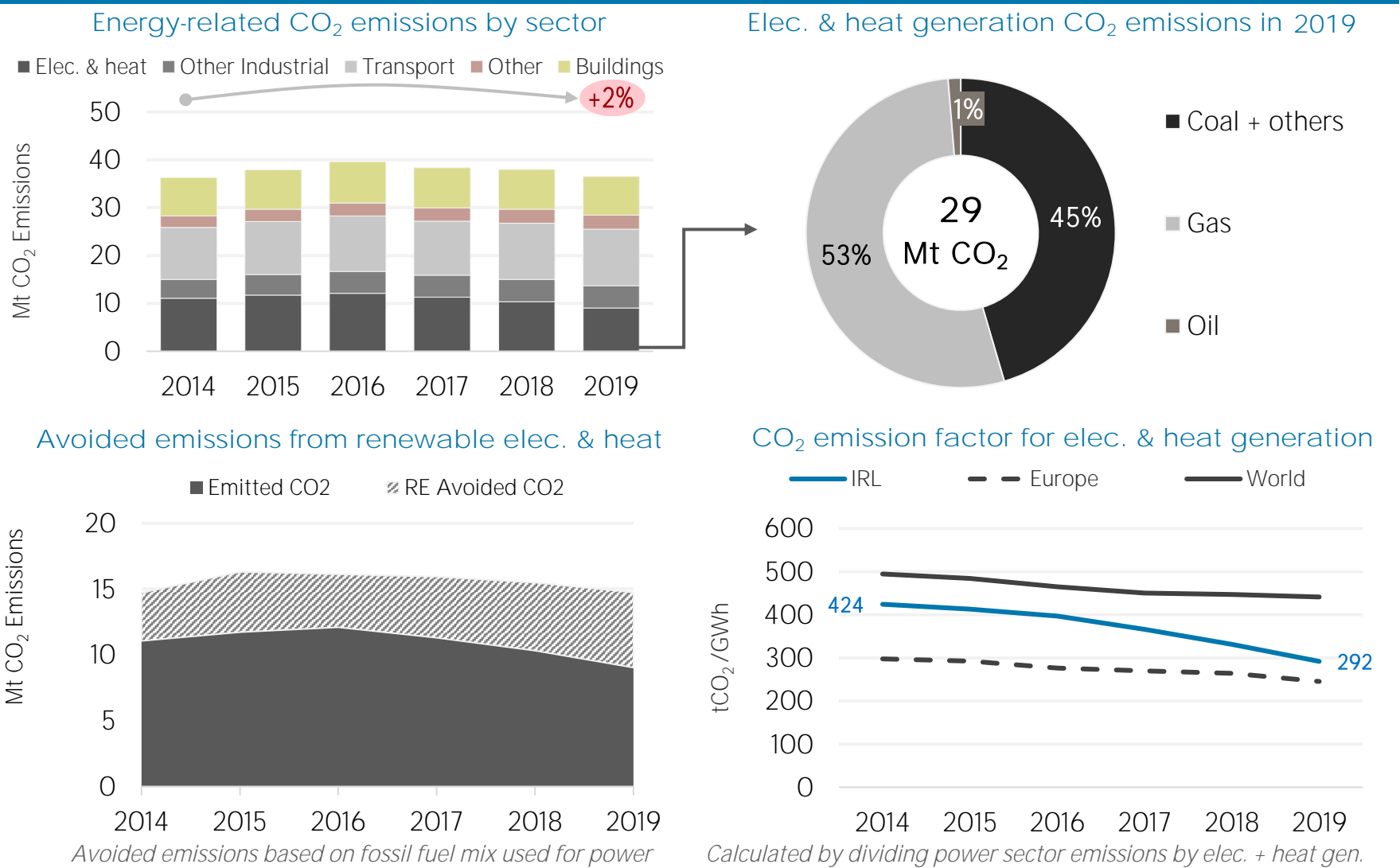
Latest policies, programmes and legislation

1	Energy Efficiency Grants	2021
2	Enterprise Ireland Climate Enterprise Action Fund	2021
3	Ireland's Draft National Energy and Climate Plan 2021-2030	2021
4	National Recovery and Resilience Plan -Advancing the Green Transition	2021
5	Schools Energy Retrofit Pathfinder Programme	2021

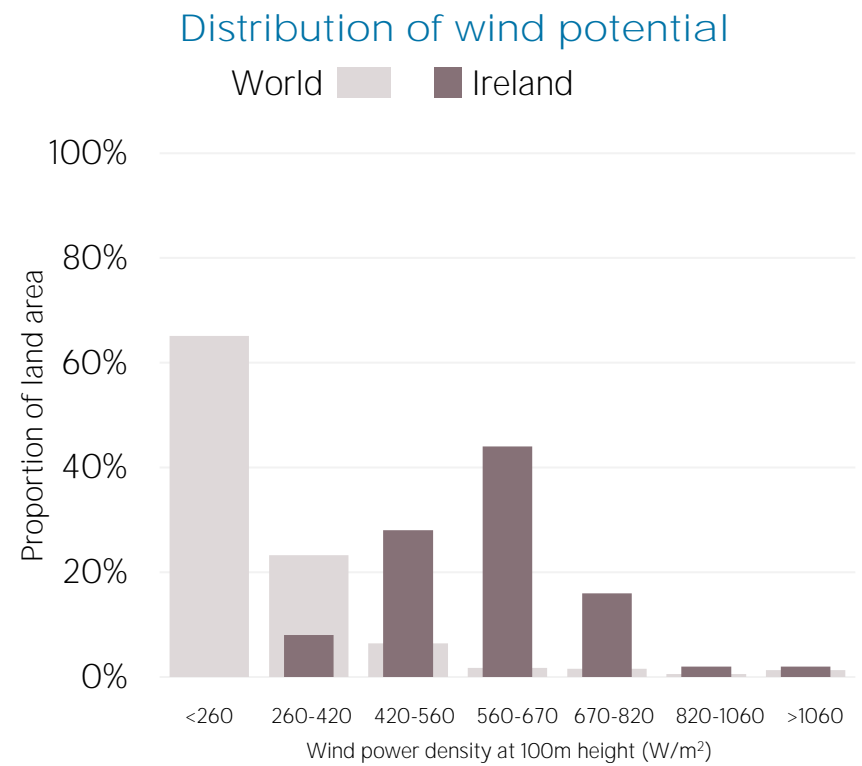
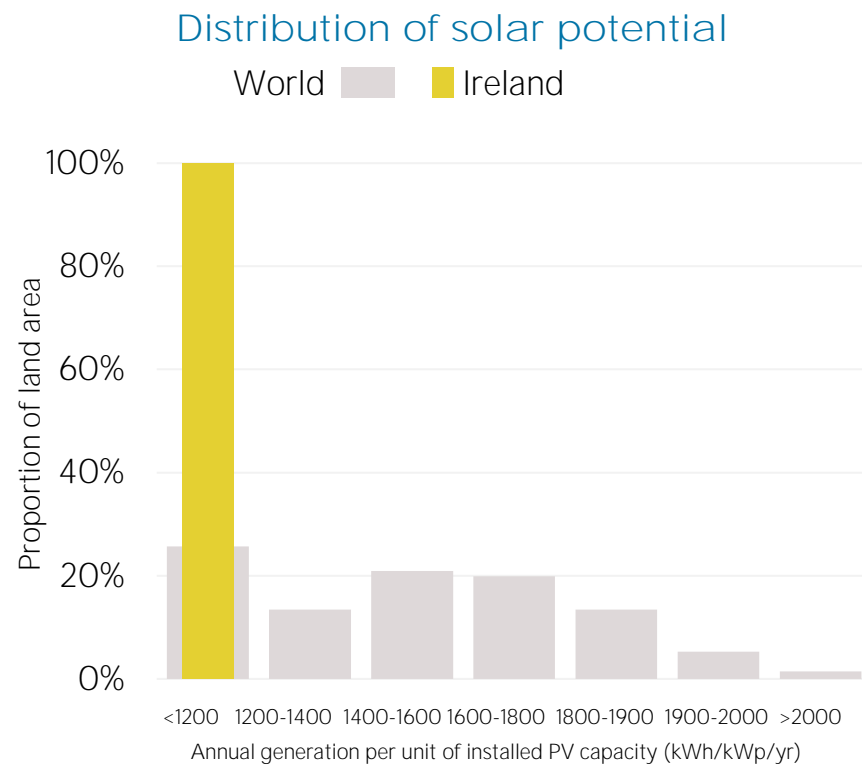
References to sustainable energy in Nationally Determined Contribution (NDC)

	Conditional	Unconditional	unit
- Renewable energy			
- electricity			
- transport			
- heating/cooling			
- Energy efficiency			

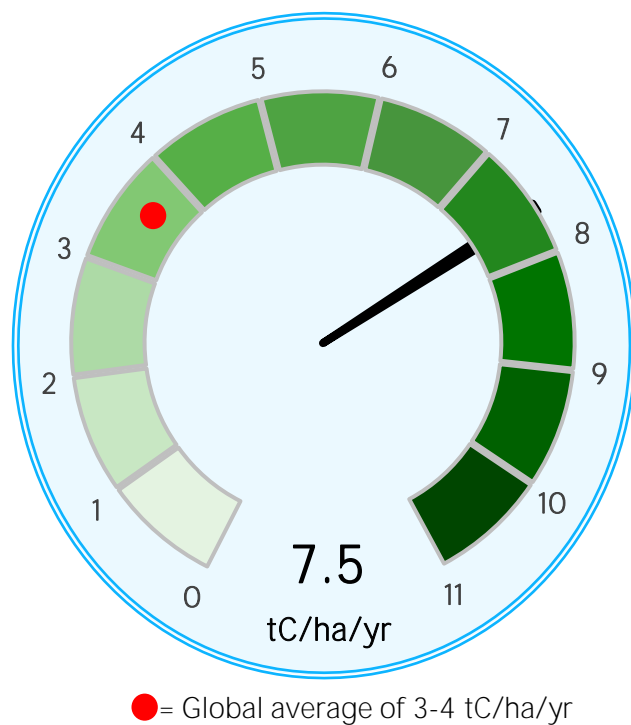
ENERGY AND EMISSIONS



RENEWABLE RESOURCE 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 per year.

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.

Last updated on: 29th September, 2021