

Energy Statistics for Scotland

Q4 Figures

March 2019

Published: 28th March 2019
Revised: 15th April 2019
Next update: 27th June 2019
Coverage: Scotland
Frequency: Quarterly
Theme: Business, Industry, Trade and Energy
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New this quarter

- Provisional 2018 renewable electricity target data.
- Renewable electricity generation for Q4 2018.
- Renewable capacity for Q4 2018.
- Electricity imports and exports for 2018.

Revisions - 15/04/2019

- In planning renewable capacity increased by 0.5 GW for Q4 2018.
- Net Electricity export figures for 2018 were revised by BEIS.

This publication is a summary of the key statistics relating to energy in Scotland.

Accompanying this publication, updated statistics are available here:

Energy statistics database:

<https://www2.gov.scot/Topics/Statistics/Browse/Business/Energy/Database>

Interactive energy app:

<https://scotland.shinyapps.io/sg-scottish-energy-statistics/>

Key Points:

- Provisional figures indicate that the equivalent of **74.6%** of gross **electricity** consumption was from **renewable** sources, an increase on **70.3%** in **2017**.
- **Renewable electricity generation** in Scotland for **2018** was **26,708 GWh**, a **6.1% increase** on **2017**. This is the equivalent of powering **all households** in Scotland for more than **two-and-a-half years**. **2018** is a **record year** for Scottish renewable electricity generation.
- **Generation** increased in the **first and final quarters of 2018** compared to the previous year. In **Q4 2018**, renewable electricity was almost **8,900 GWh**, over **1,100 GWh higher** than **Q4 2017**.
- The continued growth of Scotland's renewable electricity **capacity** underlies this rise in generation; capacity rose from **10.1 GW** in **2017** to **10.9 GW** in **2018**.
- **2018** saw big increases in electricity generated via **offshore wind**, with capacity and generation both **more than doubling** compared to **2017**, primarily due to Beatrice wind farm becoming operational.
- Net exports have **increased** from **12,868 GWh** in **2017** to **13,517 GWh** in **2018**.

Energy Targets:

		Latest	Target
Overall Renewable Energy Target	PROVISIONAL	20.0%	50%
Total Scottish energy consumption from renewables		in 2017	by 2030
Renewable Electricity Target	PROVISIONAL	74.6%	100%
Gross electricity consumption from renewables		in 2018	by 2020
Renewable Heat Target	PROVISIONAL	5.9%	11%
Non-electrical heat demand from renewables		in 2017	by 2020
Energy Consumption Target	PROVISIONAL	↓ 13.9%	↓ 12%
Reduction in total energy consumption from 2005-07		in 2017	by 2020
Energy Productivity Target	PROVISIONAL	↑ 0.4%	↑ 30%
% change in gross value added achieved from the input of one gigawatt hour of energy from 2015.		in 2017	in 2030

Sources

Links to the original BEIS sources can be found in the Energy Statistics Database, references to the data in the ESD have been provided
Energy Targets - Energy Statistics Database: 'Renewable energy target'

2018 is a **record year** for electricity generation in Scotland. Renewable electricity generation increased by **6.1%** from 2017.

In **Q4** alone renewable electricity generation was **1,100 GWh** more than Q4 2017.

Onshore wind increased **1,361 GWh** since 2017.

Offshore wind generation has thrived in 2018, **more than doubling** compared to 2017 (increasing by **754 GWh**), due to Beatrice wind farm becoming operational

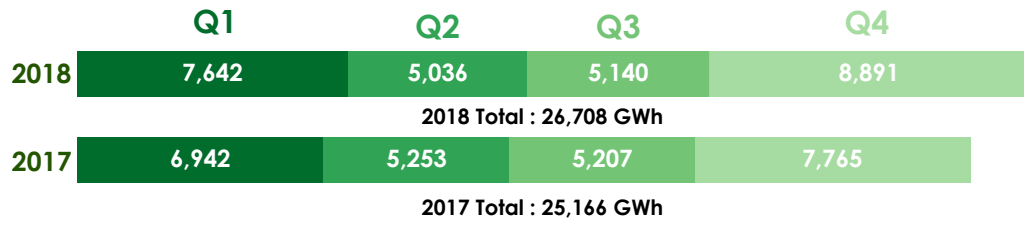
In December 2018, **10.9 GW** of renewable electricity was operational in Scotland, up from 10.1 GW in 2017.

There is an additional **12.6 GW** of capacity of all renewables in the pipeline.

In **2018**, net electricity exports were **13,517 GWh**.

This has increased from 12,868 GWh in 2017.

Renewable Electricity 2017 - 2018

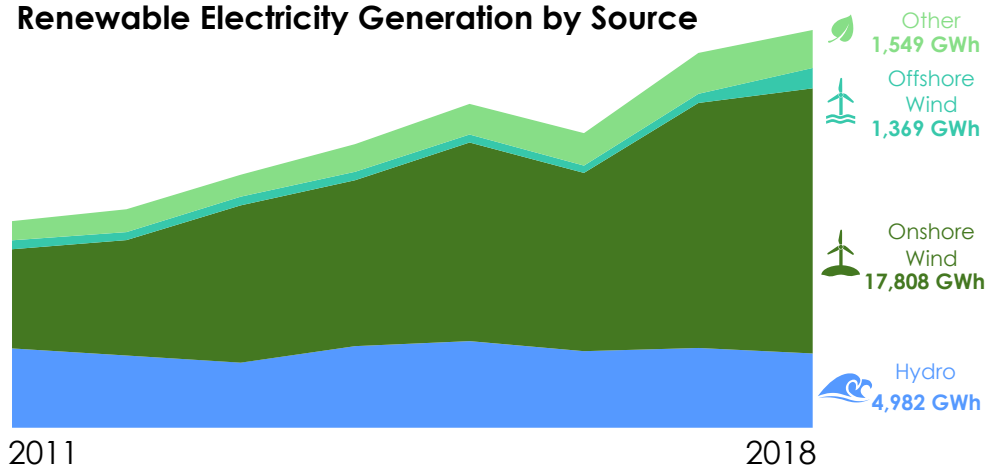


In **2018**, the amount of **renewable electricity generated** in Scotland was **26,708 GWh**.

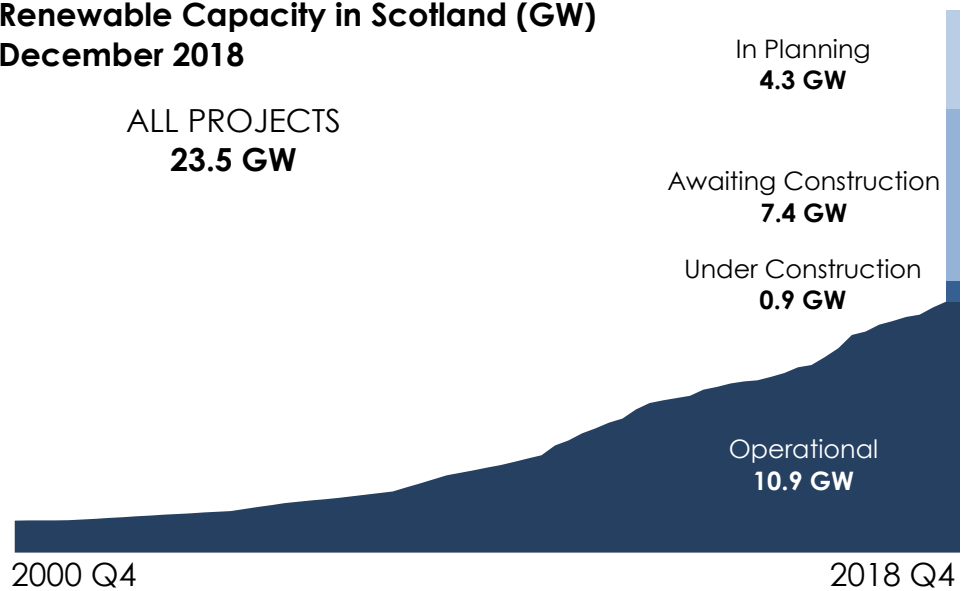


This would power the equivalent of **all households** in Scotland for **two-and-a-half years**.

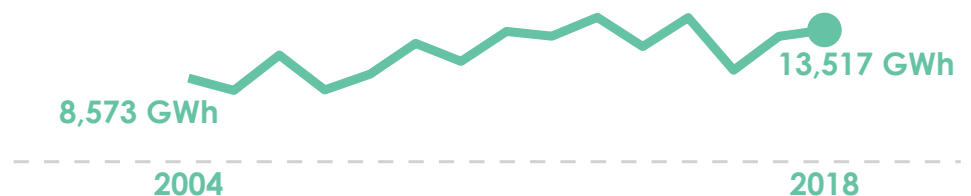
Renewable Electricity Generation by Source



Renewable Capacity in Scotland (GW) December 2018



Net Electricity Exports (GWh) 2004 - 2018



*This figure was revised on 15/04/2019

Sources

Renewable Electricity - Energy Statistics Database: 'Renewable elec by fuel'
 Renewable Electricity Generation by Source - Energy Statistics Database: 'Renewable elec by fuel'
 Renewable Capacity in Scotland - Energy Statistics Database: 'Renewable elec planning'
 Net Electricity Exports - Energy Statistics Database: 'Elec imports & exports'

In 2018, an estimated **74.6%** of gross electricity consumption came from renewable sources, up **4.3 percentage points** from 2017.

Scotland has a target to deliver the equivalent of **100%** of gross electricity consumption from renewables by **2020**.

In 2017, **5.9%** of heat demand in Scotland was generated from renewable sources

Scotland has a target to deliver the equivalent of **11%** of heat demand from renewable sources by **2020**.

In 2017, total final energy consumption was **13.9%** lower than the 2005-07 baseline.

Scotland has a **2020** target to reduce total final energy consumption by **12%** from baseline 2005-07.

Energy consumption in Scotland has increased by 1.3% on 2016 (an increase of 1,915 GWh). Much of this is due to a rise in gas consumption in 2017.

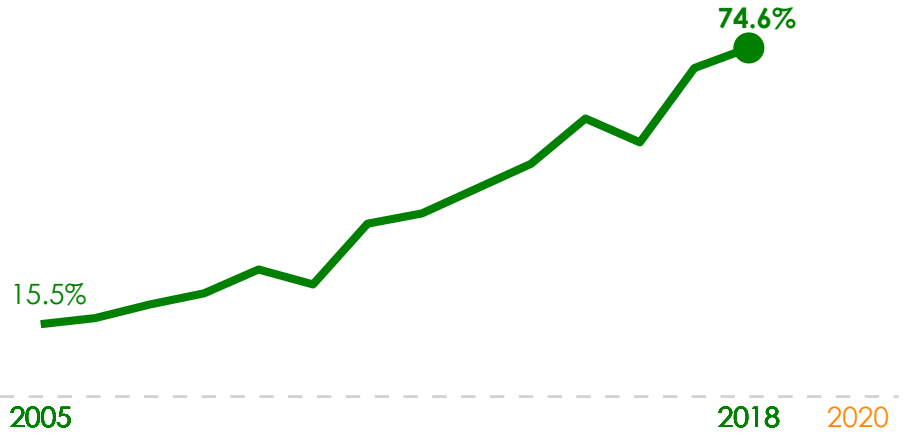
Renewable Electricity Target

PROVISIONAL

2005-2018

↑ **59.1 percentage points** from 2005 to 2018

↑ **4.3 percentage points** from 2017 to 2018



*The 2017 figure was revised to 70.3%

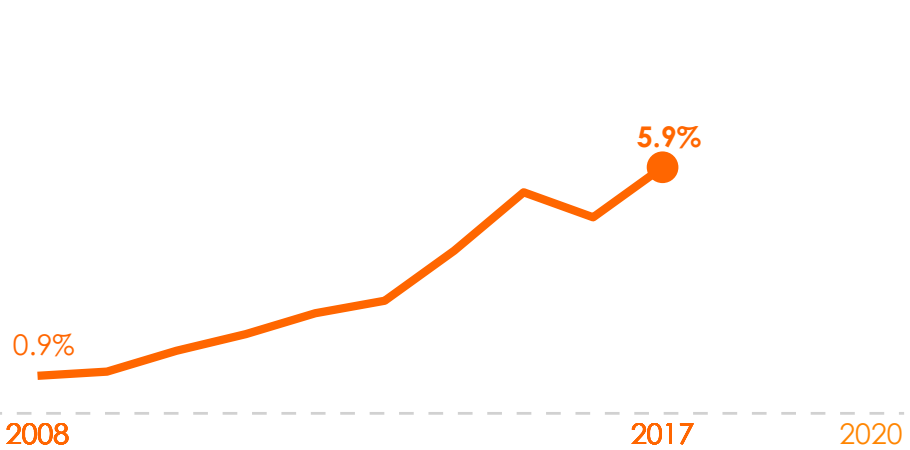
Renewable Heat Target

PROVISIONAL

2008 - 2017

↑ **5.0 percentage points** from 2008 to 2017

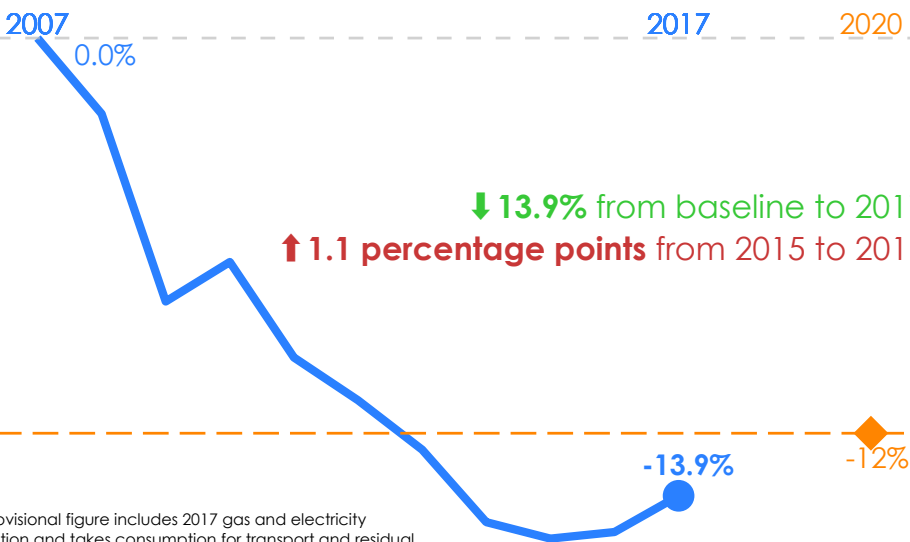
↑ **1.2 percentage points** from 2016 to 2017



Energy Consumption Target

PROVISIONAL*

Baseline (2005-07) - 2017



* 2017 provisional figure includes 2017 gas and electricity consumption and takes consumption for transport and residual fuels from 2016.

Sources

Renewable Electricity Target - Energy Statistics Database: 'Renewable elec target'

Renewable Heat Target - Energy Statistics Database: 'Renewable heat'

Energy Consumption Target - Energy Statistics Database: 'Energy consumption target'

In 2017, **20.0%** of total Scottish energy consumption came from renewable sources, 4.0 percentage points higher than 2016.

Much of this increase is due to wind being used to produce renewable electricity; in 2017 there was a 1.1 GW increase in wind capacity on 2016, which contributed to a 4,600 GWh increase in electricity generation via wind.

Scotland has a target to deliver the equivalent of **50%** of total energy consumption from renewable sources by **2030**.

In 2017, Energy Productivity was **0.4%** higher than the 2015 baseline.

Scotland has a target to increase energy productivity by **30%** compared to the 2015 baseline, by **2030**.

Energy productivity is the Gross Value Added (GVA) from the input of one gigawatt hour.

Higher energy productivity means "squeezing" more out of every unit of energy consumed.

Overall Renewable Energy Target

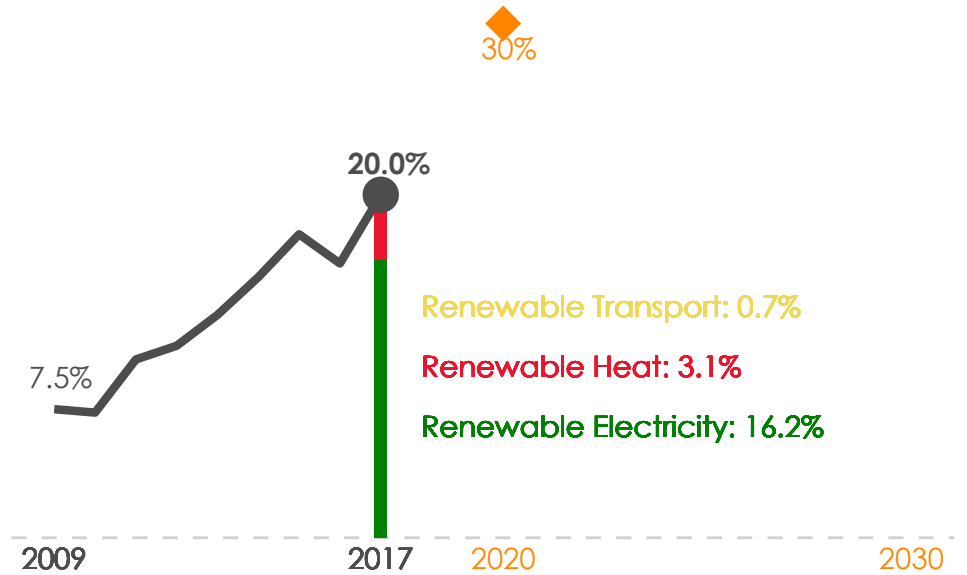
PROVISIONAL

2009-2017

↑ **12.4 percentage points** from 2009 to 2017

↑ **4.0 percentage points** from 2016 to 2017

50%



Energy Productivity Target

PROVISIONAL

2015 - 2017

↑ **0.4%** from 2015 to 2017

↑ **0.1 percentage points** from 2016 to 2017

30%



*The 2017 figure was revised to 0.4%

Sources

Overall Renewable Energy Target - Energy Statistics Database: 'Renewable energy target'
 Energy Productivity Target - Energy Statistics Database: 'Energy productivity'