

Energy Statistics for Scotland

Q2 Figures

September 2018

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New this quarter

- Final renewable energy and heat target data for 2016
- Energy consumption and productivity data for 2016
- Renewable electricity generation for Q2 2018
- Renewable capacity for Q2 2018
- First update of energy productivity target

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://www.gov.scot/Resource/0053/00538573.xlsx>

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

Key Points:

- Renewable electricity generation was 4,886 GWh in Q2 2018.
- 12,421 GWh total renewable electricity generated in 2018 so far. This is 1.9% more than the same period last year.
- Scotland accounts for 23.7% of whole UK renewable electricity generation.
- There is 10.3 GW of renewable capacity operational as of June 2018. A further 12.2 GW is in the pipeline.

Energy Targets:

	Latest	Target
Overall Renewable Energy Target Total Scottish energy consumption from renewables	16.0% in 2016	30% by 2020
Renewable Electricity Target Gross electricity consumption from renewables	69.0% in 2017	100% by 2020
Renewable Heat Target Non-electrical heat demand from renewables	4.7% in 2016	11% by 2020
Energy Consumption Target Reduction in total energy consumption from 2005-07	↓ 15.4% in 2016	↓ 12% by 2020
Energy Productivity Target Percentage change in gross value added achieved from the input of one gigawatt hour of energy from 2015.	↑ 0.3% in 2016	↑ 30% in 2030

A total of **12,421 GWh** of renewable electricity was generated in Scotland in the first half of 2018.

This is 1.9% more than the same period in 2017, and accounts for 23.7% of total U.K. renewable electricity.

In the second quarter of 2018, **4,886 GWh** of electricity was generated from renewable sources. This is down 7% from the same quarter in 2007.

In June 2018, **10.3 GW** of renewable electricity capacity was operational in Scotland.

Data as at July 2018 show that Scotland had 10.3 GW of installed renewable electricity generation capacity, with an additional 12.2 GW of capacity either under construction, awaiting construction or in planning.

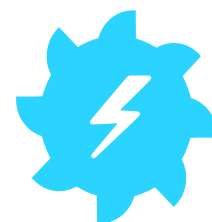
Renewable Electricity Generation 2018 to date.



Total Renewables



Wind



Hydro

Amount Generated (GWh)

12,421

9,121

1,999

% change from first half of 2017

+1.9%

+10.3%

-21.8%

% of all UK Generation

23.7%

32.8%

88.6%

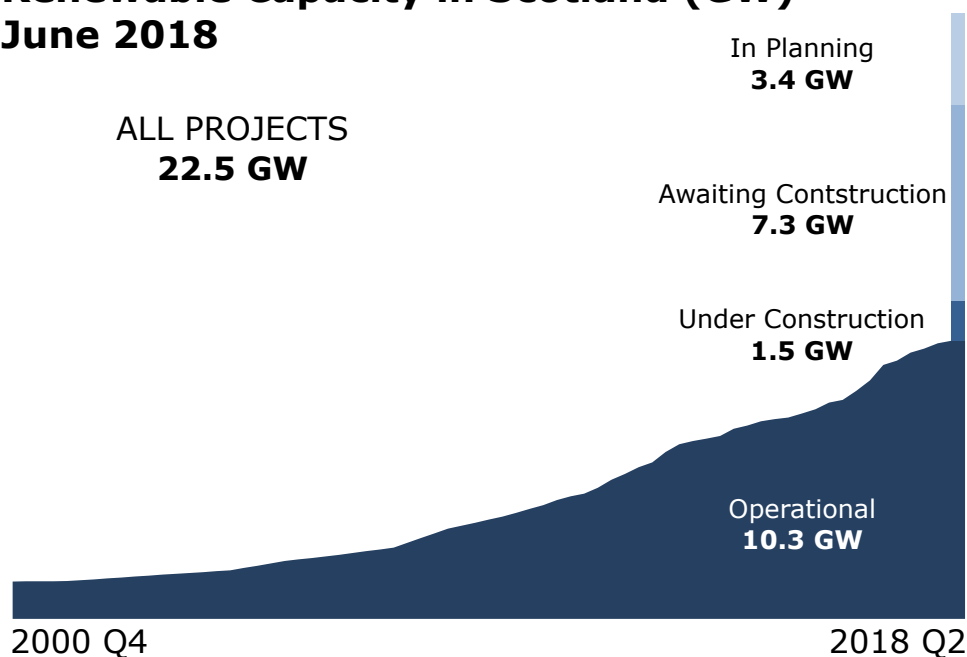


Q2 Renewable Electricity Generation

↓ 7.0% on Q2 2017

Renewable Capacity in Scotland (GW) June 2018

**ALL PROJECTS
22.5 GW**



In 2016, **16.0%** of total Scottish energy consumption came from renewable sources, 1.7 percentage points lower than 2015.

Scotland has a target to deliver the equivalent of **30%** of total renewable sources **2020**.

Renewable electricity makes up the majority (12.8%) of renewable energy.

The reasons underlying the drop this quarter are a fall in both hydro and wind generation due to lower rainfall and lower average wind speed, and the closure of a single significant user of renewable heat in 2016.

In 2016, Energy Productivity was **0.3%** 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.

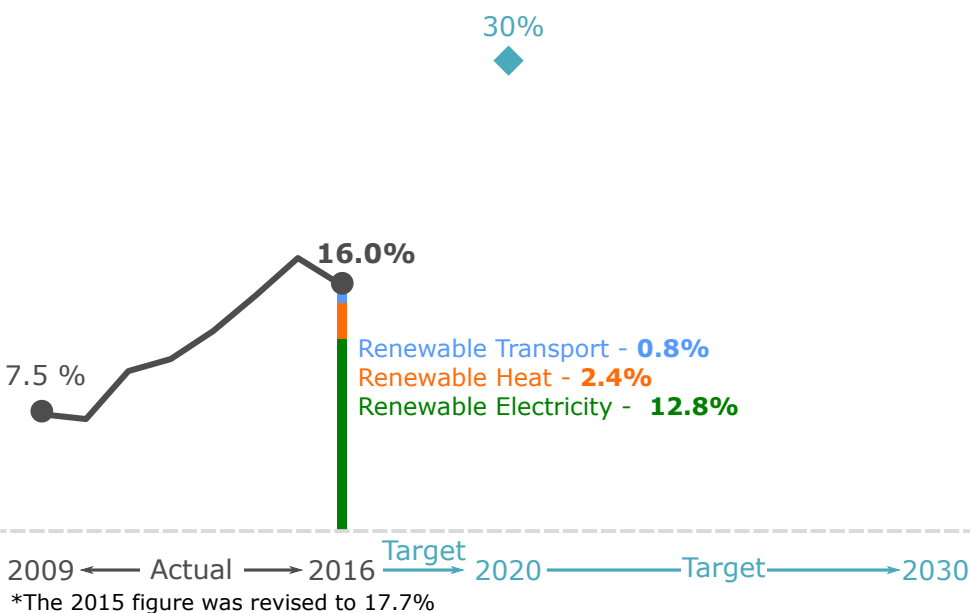
Overall Renewable Energy Target

2009-2015

↑ **8.4 percentage points** from 2009 to 2016

↓ **1.7 percentage points** from 2015 to 2016

50%
◆



Energy Productivity Target

2015 - 2016

↑ **0.3%** from 2015 to 2016

30%
◆



Sources

Quarterly Energy Trends Reports, BEIS - <https://www.gov.uk/government/collections/energy-trends>

Quarterly Renewable Electricity Generation Tables (ET 6.1), BEIS - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/579528/ET_6.1.xls

Sub-National Energy Consumption Tables, BEIS - <https://www.gov.uk/government/collections/sub-national-electricity-consumption-data>

In 2017, **69.0%** of gross electricity consumption came from renewable sources, up 15 percentage points from 2016.

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

In 2016, **4.7%** 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**.

The drop in 2016 compared to 2015 is primarily due to changes at a small number of large non-domestic sites

In 2016, total final energy consumption was **15.4%** lower than the 2005-07 baseline.

Scotland has a **2020** target to reduce total final energy consumption by **12%** from baseline 2005-07. At **-15.4%** in 2016, the reduction in energy consumption is already below the level required to meet the 2020 target.

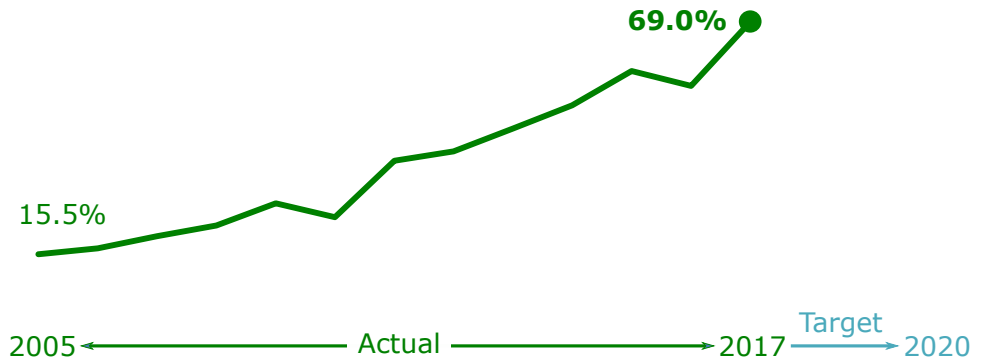
Renewable Electricity Target

2005-2017

↑ **52.2 p.p.** from 2006 to 2017

↑ **15.0 p.p.** from 2016 to 2017

100%



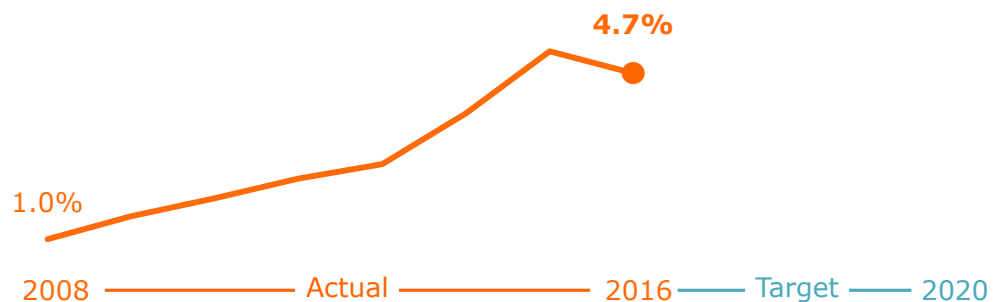
Renewable Heat Target

2008 -2016

↑ **3.8 p.p.** from 2008 to 2016

↓ **0.6 p.p.** from 2015 to 2016

11%



*The 2015 figure was revised to 5.3%

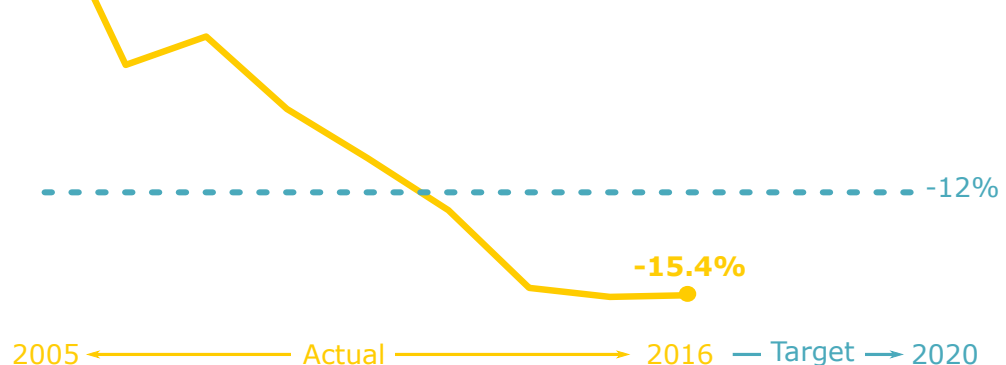
Energy Consumption Target

Baseline (2005-07) - 2016

-1.6%

↓ **15.4%** from baseline to 2016

↑ **0.1%** from 2015 to 2016



Sources

Regional Renewable Statistics - <https://www.gov.uk/government/statistics/regional-renewable-statistics>

Electricity generation and supply figures - <https://www.gov.uk/government/statistics/energy-trends-december-2016-special-feature-article-electricity-generation-and-supply-figures-for-scotland-wales-northern-ireland-and-england-2>