

Energy Statistics for Scotland

Q3 Figures

December 2018

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New this quarter

- Provisional renewable energy and heat target data for 2017

- Provisional energy consumption and productivity data for 2017

- Final renewable electricity target data for 2017

- Renewable electricity generation for Q3 2018

- Renewable capacity for Q3 2018

Key Points:

- Provisional figures indicate that progress towards the renewable energy target is **20.0%** in **2017**, up from **16.0%** in **2016**

- According to final figures for **2017**, the equivalent of **70.1%** of gross electricity consumption was from renewable sources, a substantial increase on **54.4%** in **2016**.

- In **2017**, the equivalent of **5.9%** of non-electrical heat demand was met from renewable sources. This is up from **4.7%** in **2016** and makes it a record year for renewable heat.

- According to provisional figures for 2017, 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 generation in Scotland was **5,014 GWh** in Q3 2018. In 2018 to date, renewable electricity is slightly higher than at the same point in 2017. (**17,735 GWh** in 2018 compared to **17,401 GWh**).

- At the end of Q3 2018, there was **10,475 MW** of installed **renewables electricity capacity** in Scotland, **an increase of 5.9% (585 MW)** over the year from Q3 2017.

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/>

Energy Targets:

Overall Renewable Energy Target

Total Scottish energy consumption from renewables

| Latest | Target |
|--|-----------------------|
| 20.0% in 2017 PROVISIONAL | 50% by 2030 |

Renewable Electricity Target

Gross electricity consumption from renewables

| | |
|----------------------------------|------------------------|
| 70.1% in 2017 FINAL | 100% by 2020 |
|----------------------------------|------------------------|

Renewable Heat Target

Non-electrical heat demand from renewables

| | |
|---------------------------------------|-----------------------|
| 5.9% in 2017 PROVISIONAL | 11% by 2020 |
|---------------------------------------|-----------------------|

Energy Consumption Target

Reduction in total energy consumption from 2005-07

| | |
|--|-------------------------|
| ↓ 13.9% in 2017 PROVISIONAL | ↓ 12% by 2020 |
|--|-------------------------|

Energy Productivity Target

% change in gross value added achieved from the input of one gigawatt hour of energy from 2015.

| | |
|---|-------------------------|
| ↑ 0.3% in 2017 PROVISIONAL | ↑ 30% in 2030 |
|---|-------------------------|

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.

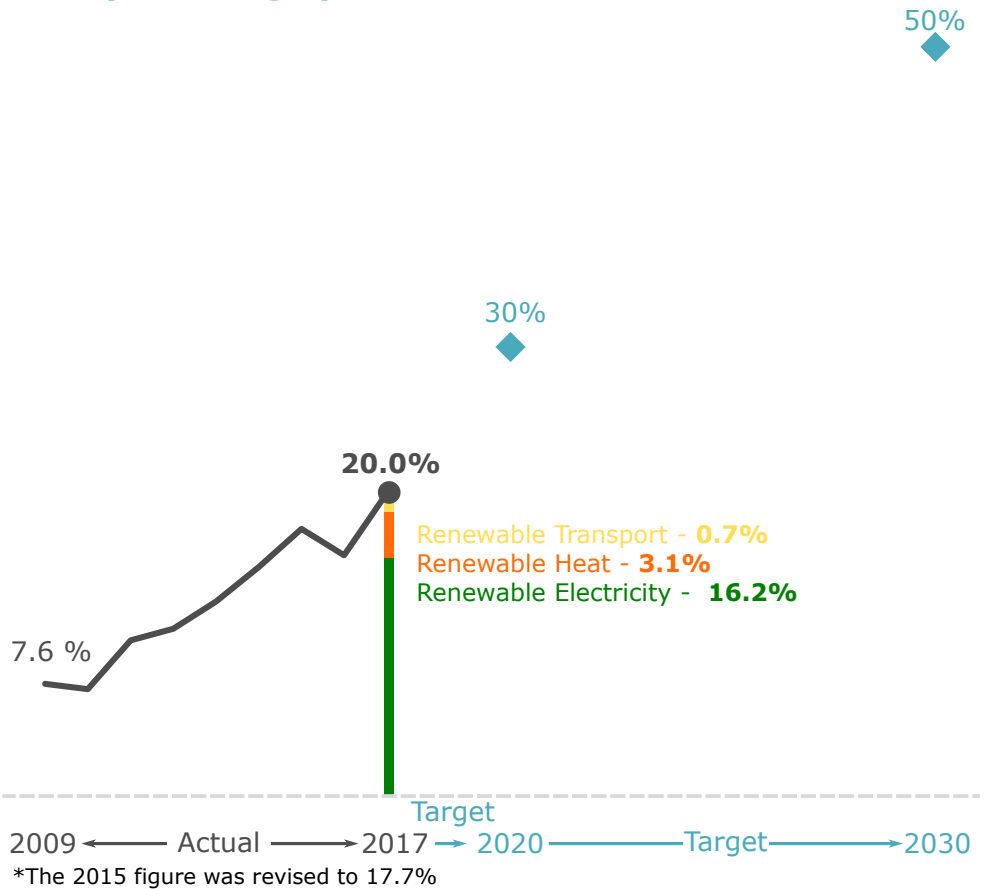
Scotland has a target to deliver the equivalent of **50%** of total energy consumption from renewable sources by **2030**.

Overall Renewable Energy Target PROVISIONAL

2009-2017

↑ 12.4 percentage points from 2009 to 2017

↑ 4.0 percentage points from 2016 to 2017



In 2017, 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.

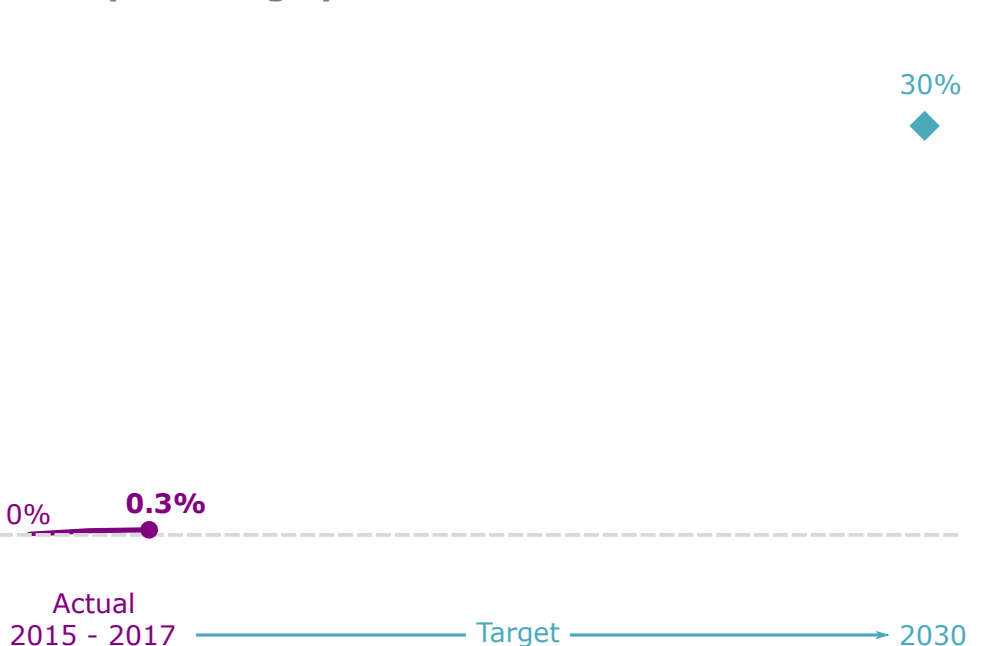
Higher energy productivity means "squeezing" more out of every unit of energy consumed.

Energy Productivity Target PROVISIONAL

2015 - 2017

↑ 0.3% from 2015 to 2017

↔ 0.0 percentage points from 2016 to 2017



In 2017, **70.1%** of gross electricity consumption came from renewable sources, up 15.7 percentage points from 2016.

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.

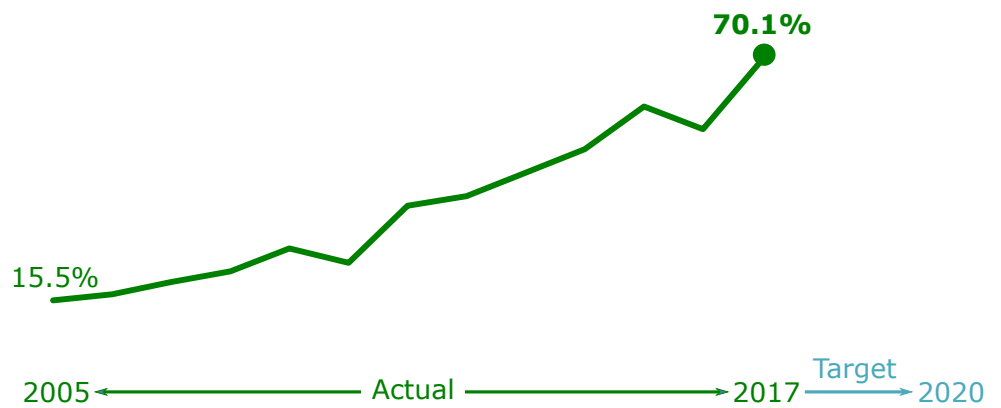
Renewable Electricity Target

2005-2017

↑ 54.6 percentage points from 2005 to 2017
↑ 15.7 percentage points from 2016 to 2017

FINAL

100%



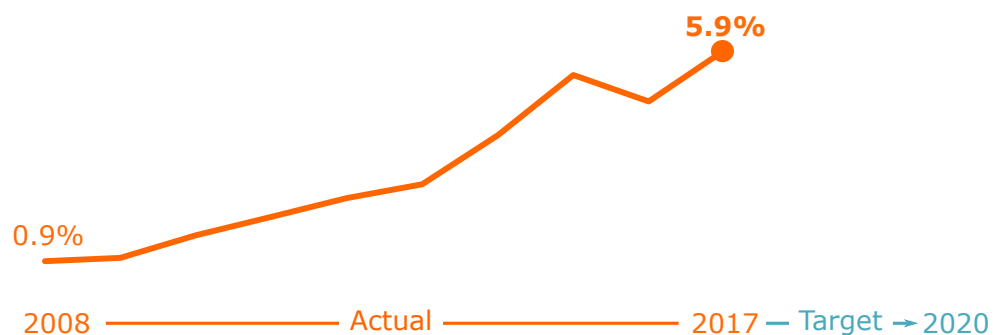
Renewable Heat Target

2008 - 2017

↑ 5.0 percentage points from 2008 to 2017
↑ 1.2 percentage points from 2016 to 2017

PROVISIONAL

11%

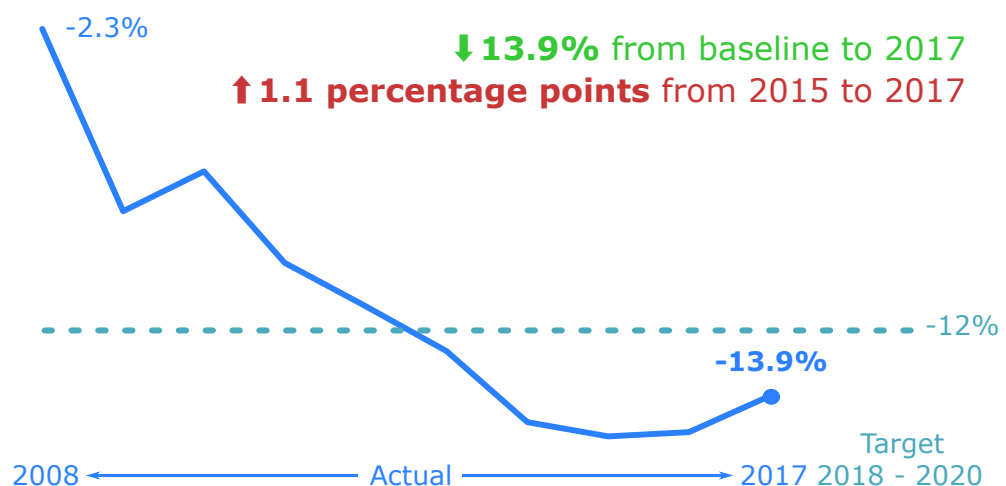


Energy Consumption Target

Baseline (2005-07) - 2017

↓ 13.9% from baseline to 2017
↑ 1.1 percentage points from 2015 to 2017

PROVISIONAL*



The 2016 figure was revised to -15.0%

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

Sources

Renewable Electricity Target : Figure 2A, Energy Statistics Database
 Renewable Heat Target : Figure 2H, Energy Statistics Database
 Energy Consumption Target : Figure 3A, Energy Statistics Database

Electricity and gas consumption in Scotland have both **risen** this year.

17.7 GWh of renewable electricity has been generated by September 2018, just up on this point last year.

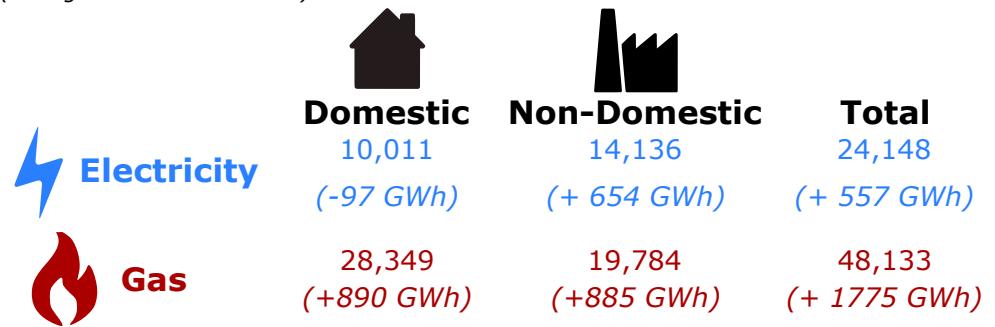
In September 2018, **10.5 GW** of renewable electricity was operational in Scotland.

There is an additional **12 GW** of capacity of all renewables either under construction, awaiting construction or in planning.

Almost **90%** of Scottish electricity generation is **low carbon**, with more than half from renewables.

Energy Consumption (GWh)

(Change from 2016 to 2017)



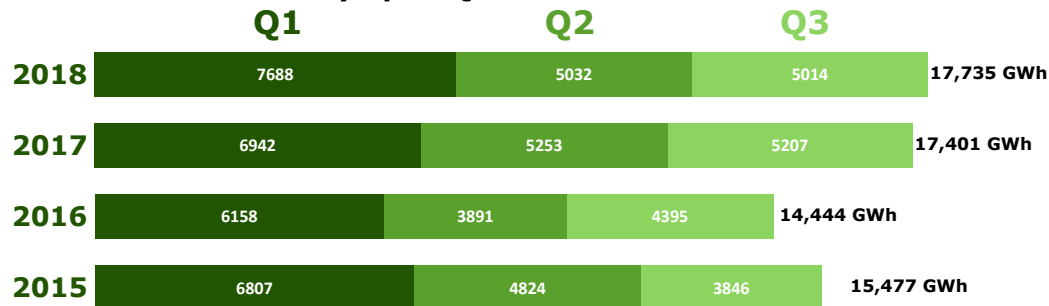
Renewable Electricity Generation



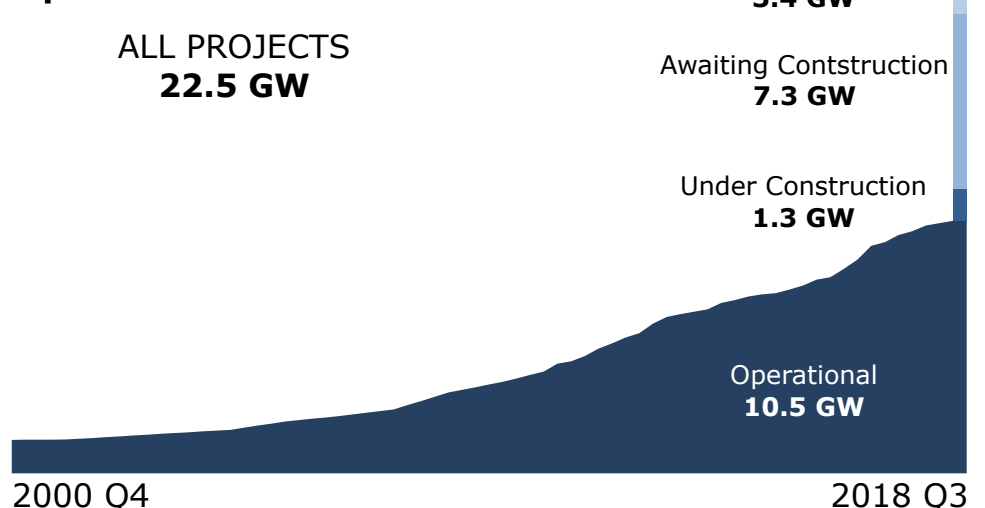
In **Q3 2018**, the amount of **renewable electricity** generated in Scotland was **5,014 GWh**.

This would power the equivalent of almost **1.4 million Scottish domestic properties** for a year.

Renewable Electricity up to Q3



Renewable Capacity in Scotland (GW) September 2018



Electricity Generation Fuel Mix

