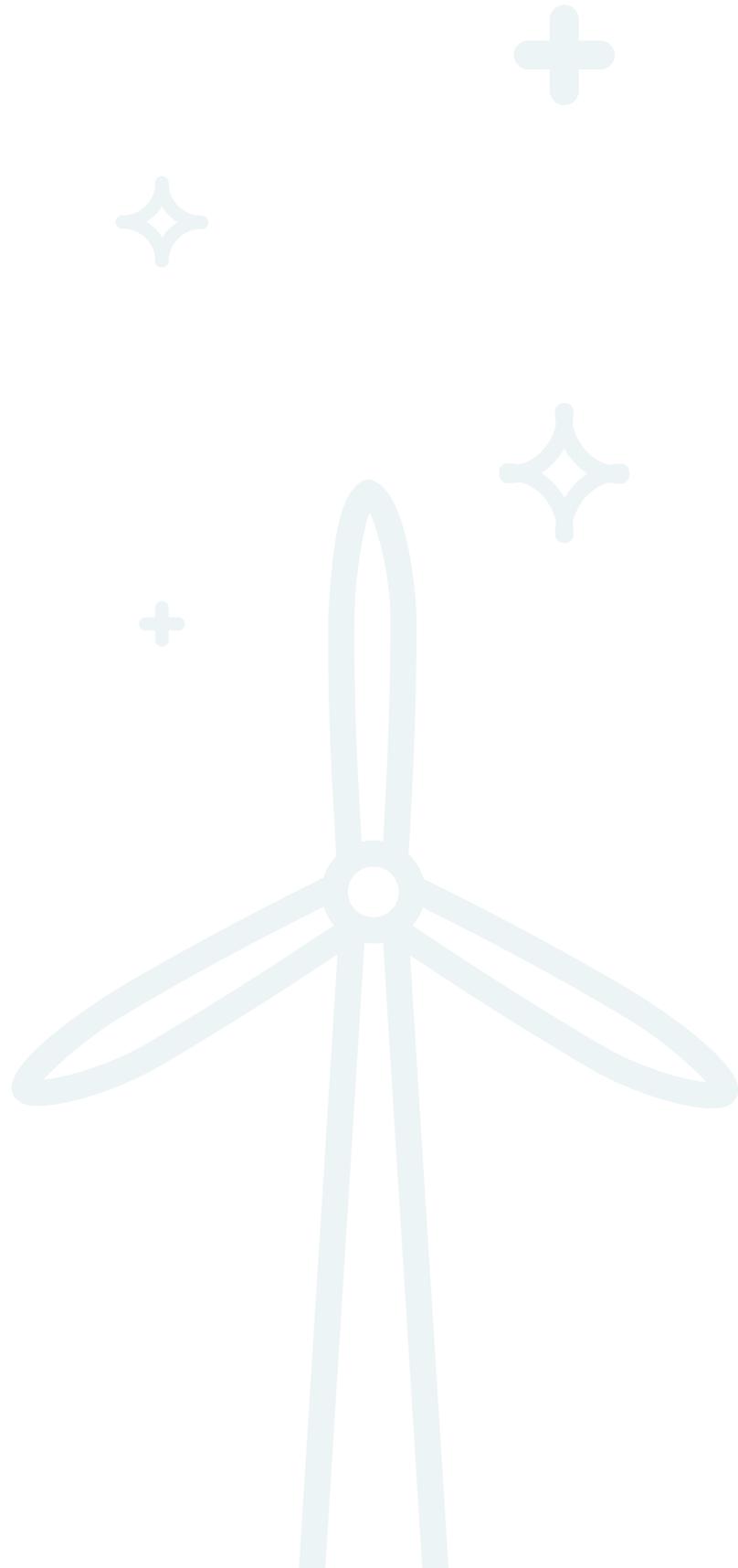


Annual Energy Statement 2020



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1. Ministerial Foreword

MINISTERIAL FOREWORD



Paul Wheelhouse

Minister for Energy,
Connectivity and the Islands

I am delighted to publish our second annual energy statement. Since the publication of our first statement in May 2019, the Scottish economy, and the scale of the challenges we now face, have changed considerably. The need for a Just Transition that supports sustainable economic growth and jobs is greater than ever, given the impacts we are seeing on the oil and gas sector and its supply chain, and the need to retain the skills and talent of those facing redundancy and to rechannel their expertise into supporting the energy transition. As we emerge from the social and economic crisis following the coronavirus (COVID-19) pandemic, we have a chance to build a greener, fairer and more equal society and economy, while ensuring that no one is left behind.

My engagement with the energy sector, through the work of the Scottish Energy Advisory Board and its Strategic Leadership Groups, and the Scottish Offshore Wind Energy Council and Scottish Marine Energy Industry Working Group, continues to show just how strong a desire there is to work collaboratively towards our goal of achieving both net zero and the energy transition. The recent

report by the Advisory Group for Economic Recovery: *Towards a Robust, Resilient, Wellbeing Economy for Scotland*¹ highlights the importance of public and private sector partnership working. We fully expect the energy sector to play an important role in the work towards a green recovery, and the Scottish Government is fully committed to working with our partners to ensure that we realise the social and economic opportunities presented to us by a Just Transition.

This statement highlights that we have made good progress in areas such as renewable electricity generation with Scotland's renewable electricity generation having grown in 2019 to such an extent that it was able to meet the equivalent of 90.1% of Scotland's gross electricity consumption. However, our commitment to achieve a 75% reduction in emissions by 2030 remains challenging, and we continue to rely heavily upon the efforts and behaviours of the public sector, industry and consumers. Scotland's ability to deliver against the 75% target will also be determined by the actions of the UK Government in areas where policy remains reserved to UK Ministers under the provisions of the Scotland Act 1998, as amended.

It is essential that the UK Government works with us and takes action in areas such as the reserved aspects of the decarbonisation of heat, measures to accelerate the full deployment of Carbon Capture Utilisation and Storage (CCUS) in Scotland, support for the decarbonisation of Scotland's energy-intensive industries, and the substantial regional security of supply issues that have developed across the UK over the past decade. Overcoming these key issues is critical to Scotland's success in achieving net zero. Through channels such as the negotiations around the UK's exit from the European Union, we will continue to call upon the UK Government to put in place the necessary policies to enable Scotland to achieve its full potential on the net zero pathway.

¹ <https://www.gov.scot/publications/towards-robust-resilient-wellbeing-economy-scotland-report-advisory-group-economic-recovery/>

Finally, in April this year, the Scottish Government launched its [Scottish Energy Statistics Hub](#). This interactive tool is a 'one-stop shop' for all Scottish energy data, designed to show the latest Scottish energy statistics in line with the Scottish Government's open and transparent approach.

This year's energy statement highlights the key developments in the sector that have influenced our ability to deliver the targets set out in the current Energy Strategy², published in December 2017. It also highlights our progress made to date, and summarises our priorities for the short term, as we look ahead to the UN Climate Conference – COP26 – in Glasgow in 2021, whilst continuing on our journey towards Net Zero and a green, fair and resilient recovery for the Scottish economy.

Paul Wheelhouse MSP,

Minister for Energy, Connectivity and the Islands

² <https://www.gov.scot/publications/scottish-energy-strategy-future-energy-scotland-9781788515276/>

2. Energy in Real Life

Scotland generated **30.5 TWh** of electricity from **renewable sources** in **2019**, equivalent to:



- Charging **almost 6.7 billion** mobile phones **for a year**



- Boiling approximately **700 billion** kettles

Scotland generated **5.2 TWh** of **renewable heat** in **2019**, equivalent to:



- Gas use of **every building** in **Glasgow City**



- Heating **all educational establishments** for roughly **2 years**

Scotland **consumed 147 TWh** of **energy** in **2018**, equivalent to:



- **24,000** flights **around the world**



- The **UK's road and rail energy use** for **four months**

Scotland's annual **energy consumption dropped** by **22.2 TWh** between **2005-07** and **2018**, equivalent to the energy required:



- For **14.8 billion** showers



- To cook meals for **every household** in **Scotland** for just over **10 years**.

3. Renewable Electricity



Renewable electricity



Target

Equivalent of **100%** of Scotland's gross electricity consumption to be generated from renewable sources by 2020.

Renewable electricity generation in Scotland during 2019 was equivalent to



of our gross electricity consumption during that period.

↑ **13.4** percentage points from 2018.

Capacity

11.9 GW of renewable electricity projects operational as of June 2020

↑ **0.1 GW** from June 2019.

13.9 GW of projects currently consented in the pipeline



Scotland continues to make strong progress towards its key renewable electricity target, i.e. that renewable generation across the country should amount to the equivalent of 100% of Scotland's gross electricity demand by 2020. In 2019, this figure was 90.1%.

This success remains built on the strong foundation represented by Scotland's long-established hydro resource, as well as the huge strides over the past two decades in the development of onshore and, more recently, offshore wind.

The potential remains for much more renewable capacity and development across Scotland – not only from the sources mentioned above, but also from the large scale deployment of floating offshore wind, from wave and tidal technologies, solar PV, and generation from Scotland's islands (which will both require and drive the development of high voltage transmission links from these islands to the mainland).

This year's consultation on the Contracts for Difference (CfD) mechanism, and the proposals concerning the readmission of onshore wind and solar as well as the treatment of floating offshore wind, are positive steps.

However, there is more that needs to be done; for example, the application of CfD minima for particular technologies should be given serious consideration. This is especially true for wave, tidal and island wind, where the significant resource potential and expertise native to Scotland and the UK presents a tremendous opportunity to lead the world in developing commercial scale projects, and capturing the associated economic and supply chain benefits.

The Scottish Government's Energy Consents Unit (ECU) have seen the volume of applications for energy infrastructure being made to Scottish Ministers increase substantially over the last two years. 26% of the onshore wind farm determinations made since 2007

were made between 2018-2020. A record 40 wind farm applications are currently under consideration, with a further 58 anticipated over the coming 18 -24 months. ECU continues to respond and transform, to deliver at pace, matching the urgent response of the renewable energy sector to contribute to Scottish Government's climate change targets.

The development of as much as possible of Scotland's renewable potential will be crucial to decarbonising energy demand across the whole system. This will be particularly true should the pathways for decarbonising heat and transport demand require, and result in, a large growth in electricity demand, as forecasts suggest this is highly plausible. We will do some further analysis over the coming year to develop scenarios looking at a range of potential contributions that might be required from specific technologies to achieve net zero, based on varying assumptions around electricity demand.

Meanwhile, the Scottish Government, following last year's consultation, has now published our Offshore Wind Policy Statement – setting out increased ambition for the sector and the key opportunities and challenges associated with achieving that, as well as establishing our belief that as much as 11 GW of offshore wind capacity is possible in Scottish waters by 2030. This coincided with the publication of a new Sectoral Marine Plan for Offshore Wind, and the commencement of a new leasing round from Crown Estate Scotland for new developments in Scottish waters.

We remain committed to maximising the economic returns from the deployment of renewable projects in Scotland and were pleased to announce, earlier this year, measures to increase local content in Scottish offshore wind projects. As part of future applications to Crown Estate Scotland's ScotWind Leasing, developers will provide a Supply Chain Development Statement laying out the anticipated level and location of supply chain impact from each phase of their project. We are currently considering what the potential consequences for non-compliance with the Supply Chain Development Statement will look like, and further details on the scheme are available from Crown Estate Scotland.

However, we would also hope, and expect, that both the developer and supply chain will benefit from earlier discussion of supply chain opportunities, enabling the Scottish Government and its agencies to support potential contractors to invest and hone their competitiveness with a view to providing strong bids for the work.

The Scottish Government will continue to promote the Scottish supply chain across all renewable technologies, and we expect to see new developments making use of Scottish-based suppliers whenever possible. Over and above this, we remain willing to utilise every lever and regulatory instrument at our disposal to create jobs across the energy sector and to retain large infrastructure contracts in Scotland.



4. Energy Economy



Energy Economy



£20.8 billion in gross value added in 2018

↑ **11.7%** on 2017



£40.8 billion in turnover in 2018

↓ **7.8%** on 2017



Scotland exports **78.8%** of its primary energy in 2018.

Revenue from exports was **£14.6 billion**.



67,000 were employed in the Scottish energy sector in 2018.



Energy productivity target

Energy productivity is a combination of **energy consumption** and the **output of the economy**.

Target: **↑ 30%** from 2015 to 2030.

Energy productivity **↑ 1.6%** between 2015 and 2018.

This is despite a **↑ 2.0%** increase in energy consumption.



Low Carbon Economy

In 2018, low carbon and renewable energy **directly supported**

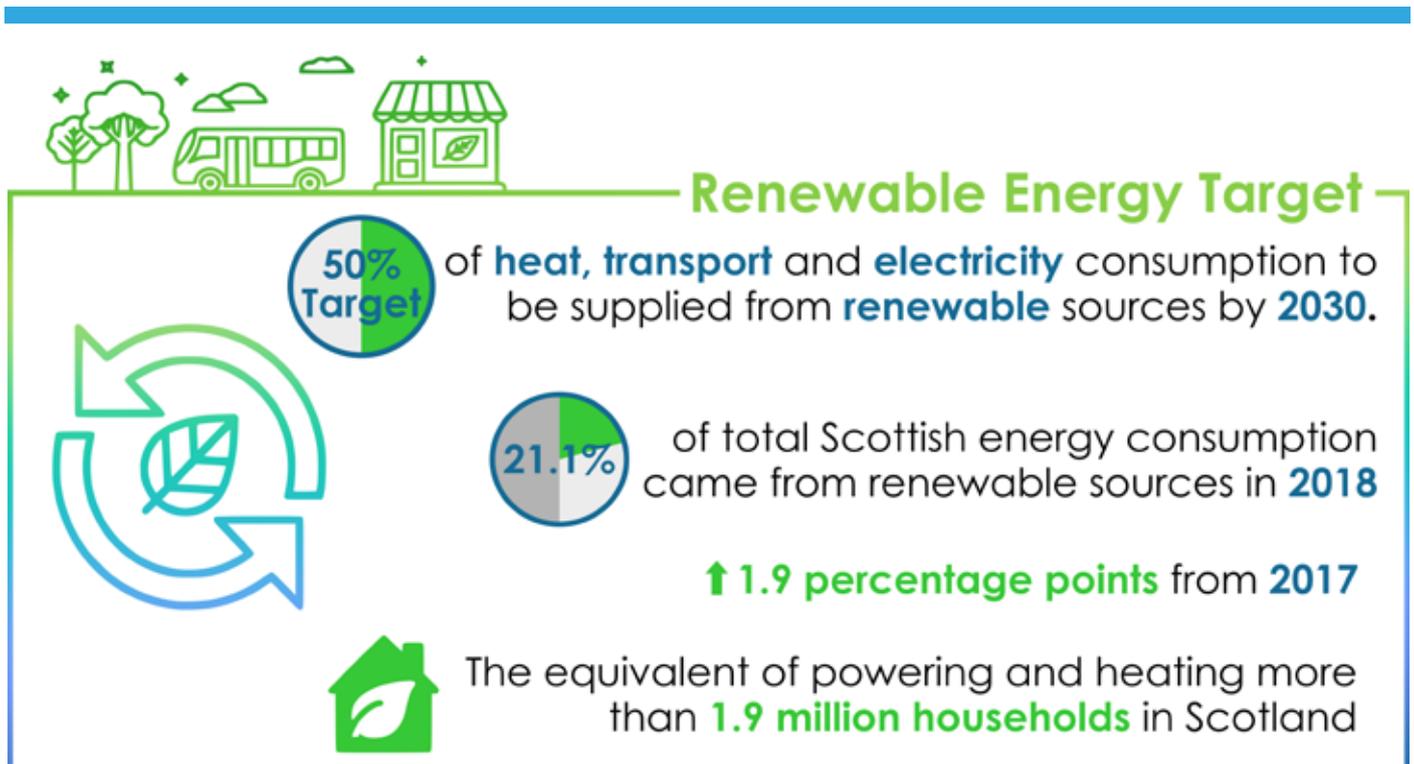


23,100 full-time equivalent jobs in Scotland



Generated **£6.4 billion** in turnover

5. Renewable Energy



The 50% renewable energy target embodies the Scottish Energy Strategy's commitment to look across the whole energy system, and the need to decarbonise the energy we use across electricity, heating our homes and buildings, and in meeting the energy needs of our transport systems.

Scotland has made great strides over the past 20 years in decarbonising our electricity sector. However, we know that we will need to achieve similar great strides in decarbonising the energy required across our heat and transport sectors in order to help deliver our interim climate change targets and the Scottish Government's net zero goal.

This need to decarbonise the whole energy system was a key theme of the Energy Networks Summit held and hosted by the Scottish Government in Glasgow during February 2020. This event represented the fulfilment of a commitment given in *Scotland's Electricity and Gas Networks: Vision to 2030*³, published in March 2019.

Our Networks Vision also committed to create a forum comprising Scottish Government and key energy system stakeholders. That commitment was also fulfilled this year, with the first meeting in January of the Scottish Energy Networks Strategic Leadership Group.

A sub-group of the Scottish Energy Advisory Board (SEAB), the Group is co-chaired by the Minister for Energy, Connectivity and the Islands

and Professor Keith Bell of Strathclyde University, and comprises members from Scotland's gas and electricity networks, the GB gas transmission system owner, GB electricity system operator (National Grid ESO), market regulator (Ofgem), and independent academic and energy consumer representatives.

The Group is taking forward work and actions in key areas, incorporating thinking on future Scottish energy scenarios and the role/influence of local, regional and national Scottish energy priorities and ambitions, based on a set of agreed principles governing strategic network development. The Group has also been able to discuss and offer views on key policy and regulatory decisions, including the crucial RII02 price controls, and their effectiveness in enabling Scotland's energy networks to support and deliver net zero.

The Renewable Energy Strategic Leadership Group is another sub-group of SEAB, and is tasked to provide advice and recommendations on the key challenges and opportunities facing the sector, the options for addressing them, and how the sector may go further to support the Scottish Government's Energy Strategy priorities.

This Group has replaced the former Renewables Industry Advisory Group (RIAG), and its new structure enables the group to cover all forms of renewable energy for heat, electricity and transport.

3 <https://www.gov.scot/publications/vision-scotlands-electricity-gas-networks-2030/>

6. System Security and Flexibility⁴

⁴ The Scottish energy system is deemed to be secure if domestic generation capacity and secure import capability exceed peak demand levels.



Electricity Security

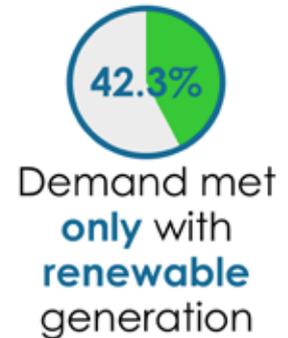
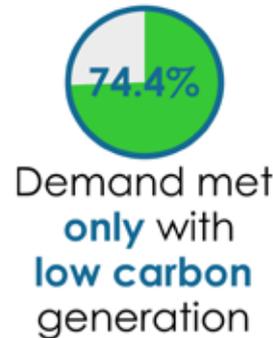
In Winter **2019/20**, Scotland had a **secure non-intermittent electricity supply capacity of 10.0 GW**



This met **peak demand of 5.0GW 2019/20**.



Scotland's **own electricity generation is sufficient to meet demand** almost all of the time



Electricity

- The interconnectors between Scotland and England/Northern Ireland remain hugely important – ensuring that Scotland is not only able to export very significant quantities of electricity to the rest of the GB network, but also able to import power during the small number of hours when our generation is less than demand, as well as providing a route to market for Scottish renewable power. In 2019, Scotland exported 17.1 TWh of power and imported just 1.2 TWh, resulting in net exports of 15.9 TWh from Scotland to the rest of the UK.
- The Scottish Government is committed to working with all key stakeholders to ensure that an increasingly decarbonised and renewable electricity system remains able to meet demand and operate safely and securely.
- We will prioritise efforts to support “sustainable security of supply”, including the innovation and demonstration necessary to ensure that renewable generation can provide vital system services.



Electricity Exports

Exports
17.1 TWh



Imports
1.2 TWh



In 2019, there was a **net export of 15.9 TWh** of **electricity**.



This had an estimated **wholesale market value** of **£0.74 billion**

7. Local Energy

Scotland has made progress on local energy

Community and Locally Owned Renewables



Local Energy Systems

Community and locally owned renewables

Scotland has **0.73 GW** of installed **capacity** of community and locally owned renewables in **2019**.



0.8 GW is in development.



Heat networks

Approximately **30,000** Scottish homes **connected** to district or communal heat networks in **2018**.



They supplied an estimated **1.18 TWh** of **heat and cooling** demand.

The energy journey to net zero is a fast moving one, both in terms of technology development and its supporting infrastructure. As such, it is difficult to predict exactly how it will develop.

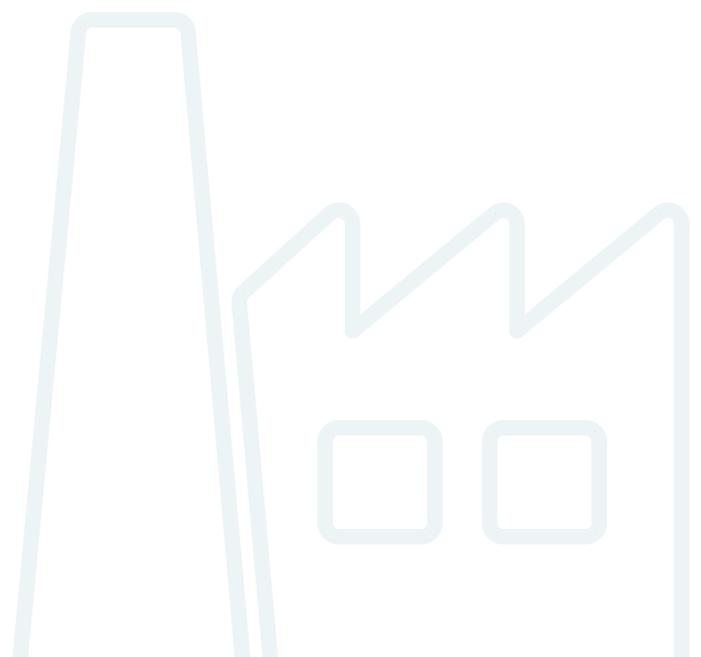
What is clear, however, is that the way we generate, supply and use our energy will continue to fundamentally change in the coming years. This means there will be a greater role for considering local energy solutions to meet local energy needs.

It is important therefore that those participating or developing projects, support a just, inclusive energy transition – one that has people at its centre, supported by strong partnership working and collaboration at a local level.

Over the course of the next year, we will:

- Publish the Local Energy Policy Statement, underpinned by ten key principles we wish to see adopted by those participating and developing local energy projects in Scotland and accompanying Delivery Framework;
- Continue our legacy of supporting community-led local renewable energy generation projects, and wider low carbon activity through our flagship Community and Renewable Energy Scheme (CARES) which is currently out to tender with a new contract period to start from April 2021;
- Continue to support the acceleration of the shift to low carbon, local energy solutions through various funding programmes through £120 million Heat Transition Deal, including:

- £50m Low Carbon Heat and Energy Systems Funding Call delivered by the highly regarded Low Carbon Infrastructure Transition Programme (LCITP), to accelerate the delivery of large scale low carbon heat infrastructure projects, including heat pumps and heat networks;
 - £20m Funding Call to support installation of low carbon heat solutions in Social Housing, also delivered by LCITP;
 - £2m Remote Grid Upgrade funding call via CARES, which will provide capital investment for remote and off-grid energy systems in Scotland requiring capital investment to maintain security of supply for isolated communities in Scotland; and
 - £15m Energy Innovation Pilot Programme to explore models of investment and invite a range of proposals for those energy innovations needed to underpin the delivery of our Climate Change Plan.
- Work with COSLA and local government to agree the scope of Local Heat & Energy Efficiency Strategies, develop a draft method for their development, and identify the resources needed to deliver them; and
 - Publish a Bioenergy Update early in the new year, followed by the development of a Bioenergy Action Plan, to be published ahead of the next Climate Change Plan update in 2024.



8. Renewable Heat

Scotland's heat demand is still primarily made up from fossil fuels, however progress on renewables has been made:

Renewable Heat

Scotland generated **5,205 GWh** of renewable heat in **2019**, **↑ 4.8%** since 2018.

This is the equivalent of supplying almost **385,000** Scottish homes with gas for the **year**.

6.5% of all non-electrical heat demand.



Energy Efficiency - Demand reduction



Demand Reduction

From a 2005-07 baseline, Scottish energy consumption **↓ 13.1%** in **2018**.



Recently, energy consumption **increased** in all sectors – in **2018** it was **↑ 2.0%** on **2015**, mirroring trends witnessed in other European countries.

9. Energy Efficiency Measures



Efficiency measures

Overall **decreases in energy consumption** were aided by **improvements in the energy efficiency of buildings**. In **2019**:



45%

of Scottish homes had a **good energy efficiency rating** (EPC band C or better)



59%

of dwellings had some form of **wall insulation**



94%

of homes had **100mm or more of loft insulation**

The Climate Change (Emissions Reductions Targets) (Scotland) Act 2019 sets a clear and challenging legal requirement for emissions to be reduced to net zero by 2045. 20% of Scotland's emissions come from heating our buildings⁵. Reducing these emissions towards net zero over the next 20-25 years will be a massive undertaking – requiring effort from government, business, homeowners, the public sector, the construction sector and manufacturers of heating equipment.

The Scottish Government will continue to develop an integrated approach to reducing demand for heat and emissions from heat supply through a combination of incentives, regulation and public awareness. Over the course of the next year we will:

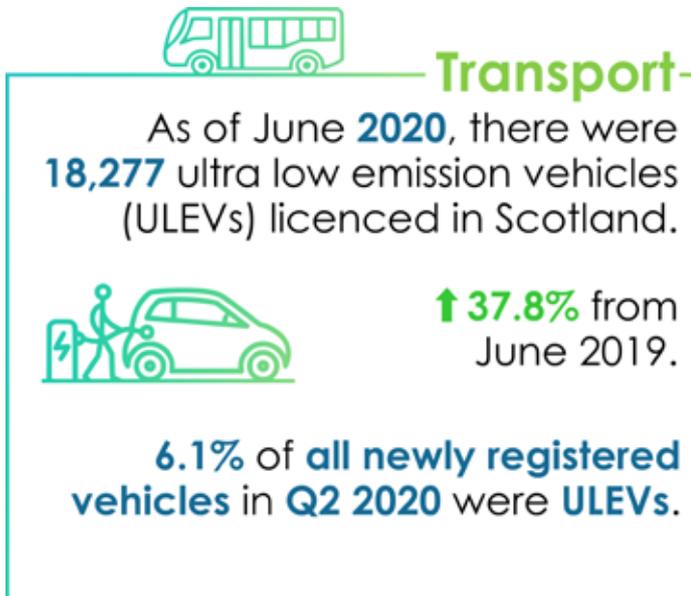
- Publish the update to the Climate Change Plan sectoral pathway for heat in Buildings, including the updated proposals and policies to meet this pathway;
- Publish a Heat in Buildings Strategy which combines our update to the Energy Efficient Scotland Route Map with forthcoming heat policy statement in one cohesive strategy that will set out more detail on how we will deliver the proposals and policies set out in the Climate Change Plan update;
- Legislate via the Heat Networks (Scotland) Bill to ensure that district and communal heating is properly regulated, as it delivers a greater share of our future heat supply; and
- As described in the previous section on local energy systems, work with our local government partners to develop Local Heat and Energy Efficiency Strategies which will enable coordinated, strategic approaches to the development of low carbon heat supply, as well as energy efficiency.

⁵ <https://scotland.shinyapps.io/sg-scottish-energy-statistics/?Section=RenLowCarbon&Subsection=RenHeat&Chart=GHGHeat>

- Continue to support the acceleration of the shift to low carbon, local energy solutions through various funding programmes through £120 million Heat Transition Deal, including:
 - £50m Low Carbon Heat and Energy Systems Funding Call delivered by the highly regarded Low Carbon Infrastructure Transition Fund (LCITF), to accelerate the delivery of large scale low carbon heat infrastructure projects, including heat pumps and heat networks; and
 - £20m Funding Call to support installation of low carbon heat solutions in Social Housing, also delivered by LCITF.
- Continue to deliver real measures on the ground through Energy Efficient Scotland via Warmer Homes Scotland, local authority-led Area Based Schemes, as well as continuing to take steps to develop the regulatory spine of Energy Efficient Scotland.
- Launch a domestic cashback scheme alongside our Home Energy Scotland loan to support householders to transition to renewable heating sources – householders will be able to apply for up to 75% cashback (up to £7,500 in value) on loans to install renewable heating and a 40% cashback (up to £6,000) for energy efficiency measures.
- Launch a cashback scheme to support SMEs to transition to renewable heating sources – SMEs can apply for up to 75% cashback (up to £10,000 in value) on interest-free loans to install renewable heating and a 30% cashback (up to £10,000) for energy efficiency measures
- Continue to deliver investment in the decarbonisation of public sector buildings through the Non-Domestic Energy Efficiency Framework and Loan Scheme.
- Launch the Industrial Energy Transformation Fund (IETF) in Scotland to support energy intensive industries (EII) to transition to a low carbon future and to reduce energy costs and emissions through increased energy efficiency.



Similar to heat demand, Scotland's transport demand is still primarily made up from fossil fuels, however progress on renewables has been made:



The National Transport Strategy (NTS) - protecting our climate and improving lives - sets the direction for transport over the next 20 years. The strategy reflects the global climate emergency and the role of transport in delivering net zero emissions by 2045 and has "taking climate action" as one of four priorities.

The transition to zero emission vehicles will reduce carbon emissions from transport significantly and we are already seeing substantial growth in the number of zero and ultra-low emission vehicles (ULEVs) registered in Scotland each year. We are taking a number of actions to aid delivery of this commitment, such as committing to phase out the need for petrol/diesel cars and vans by 2030, decarbonising cars used in public sector fleets by 2025, providing funding for ultra-low emission buses and the provision of interest-free loans to enable households and businesses to switch to ULEV.

In terms of electric vehicle (EV) charging infrastructure, we have developed a comprehensive network of over 1,400 publicly available EV chargepoints and funded the installation of over 6,500 chargepoints at homes and over 900 at workplaces. This core network enables the use of electric vehicles right across the country and is complimented by the growing number of publicly available charge points installed by the private sector.

In August last year, the Scottish Government, including Transport Scotland, launched a £7.5m Strategic Partnership with Scottish and Southern Electricity Networks and SP Energy Networks. The Partnership aims to explore new ways of coordinating the development and delivery of EV charging and electricity network infrastructure to ensure efficient investment and a fair distribution of cost across electricity consumers. It involves pooling resources, expertise, knowledge and data as well as delivering trial projects. One of the projects being advanced is project PACE, led by SP Energy Networks.

This project aims to demonstrate the efficiency of an electricity Distribution Network Operator-led delivery model for the installation of EV charging infrastructure at scale.

With £5.3m of Scottish Government funding, it is anticipated that by March 2021 up to 180 publicly available charge points will be installed across 44 sites in the Lanarkshire area.

To create successful places in the future, we also need to manage the demand for travel to address the effects of continued single occupancy car dependency, which leads to urban sprawl, inactive lifestyles and congestion. The NTS further reinforces the Sustainable Travel Hierarchy in decision-making, promoting walking, wheeling, cycling and shared transport options in preference to single occupancy private car use. We are already investing over £1 billion per year in public and sustainable transport to encourage people onto public transport and active travel modes and, in this year's Programme for Government, committed to bring forward transformational long-term funding for improved bus priority infrastructure of over half a billion pounds.

11. Consumer Engagement

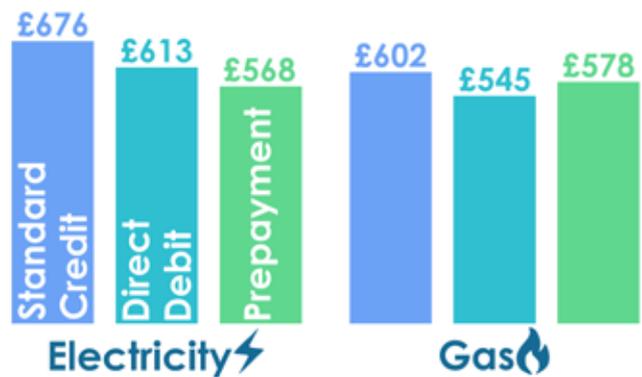
2019 has seen a changeable energy market for Scottish consumers. A number of small and medium suppliers have exited the energy market whilst the largest energy suppliers have seen significant changes, for example, the acquisition of SSE Retail by OVO Energy.



Energy Bills

Electricity and gas prices have risen substantially in real terms from the early 2000s.

Standard credit customers in Scotland **pay the most** of all customer types. The **prepayment price cap** may be **keeping electricity bills down** for prepayment customers



Fuel Poverty

Households in **fuel poverty** is **stabilising**. In 2019, **24.6%** of Scottish households are in **fuel poverty**, **12.4%** in **extreme fuel poverty**.

Switching



One in five (20.3%) Scottish consumers **switched** their electricity or gas supplier in **2019**.



Smart meters



1.16 million smart meters were **installed** in Scotland by **October 2020**, **41.2%** of all Scottish meters.





Geographical differences

Geography seems to play a role in the **differences** in experiences of Scottish consumers. Those in **North Scotland:**

- **Pay more** for their **electricity**
- Are **less likely** to **switch** energy supplier and **more likely** to be with their '**home**' supplier, so may not be on the best deal for them
- Are **less likely** to have a **smart meter**

than those in **South Scotland**



Scottish consumers, especially those in vulnerable circumstances, continue to experience detriment within the energy supply market. In order to address this, the Scottish Government followed its commitment in the Scottish Energy Strategy by publishing its Energy Consumer Action Plan in May 2019 and has made substantial progress on the commitments introduced within it:

- The Scottish Government engaged widely with stakeholders on the role, focus and remit of an independent Energy Consumers Commission which will advocate on behalf of Scottish energy consumers and represent consumer interests to the Strategic Energy Advisory Board. The commission met for the first time in July 2020 and will be taking forward its 2020/2021 workplan over the coming months;
- An Improving Consumer Outcomes Fund was launched in November 2019 in order to develop practical innovations to address instances of intractable consumer detriment that can be adapted, adopted and scaled up by existing service providers. Under stage one, we supported six projects to undertake feasibility work at the start of 2020;
- Research has been commissioned into challenges facing energy consumers, giving insights into consumer considerations for decarbonising heat and transport. This will inform our approach to the lively public debate that we will encourage throughout 2020 and 2021, taking into account the circumstances of the COVID-19 situation;
- The Scottish Government has engaged with developers of energy charter models throughout the UK and in other nations;
- The Scottish Government has called on the UK Government and Ofgem for reforms on a number of areas of detriment to consumers, including the high number of restricted meters and challenges facing rural consumers; and
- The Scottish Government has worked closely with energy companies as part of the COVID-19 pandemic response, pushing to ensure that energy consumers, particularly those in vulnerable circumstances, are supported.

12. Oil and Gas



Economy

The **oil and gas sector** was **worth** an estimated



in **Gross Value Added (GVA)** to Scotland's economy in 2019

This represented



of total **Scottish GDP** (including share of UK Extra Regional activity)

It **supported** approximately



101,400 jobs in Scotland in 2018



of Scotland's oil and gas is **exported**

This is worth **£25.0 billion**

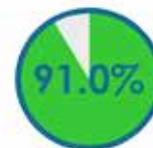


in **turnover** in **2018/19**.

Consumption



of all Scottish **energy consumption**



of **heat demand**



The 2017 Scottish Energy Strategy recognised that Scotland's oil and gas sector is a key component of our energy system and our economy. The sector can also play a key role in supporting the transition to a net zero economy.

It is also recognised by leading external organisations, including the Intergovernmental Panel on Climate Change's Special Report⁶, that both oil and natural gas will continue to play a significant role in the global energy mix to 2050.

Our 2019 Programme for Government⁷, clearly outlined that our continued support for oil and gas exploration and production in the North Sea is based on a sustainable, secure and inclusive energy transition.

Reducing emissions from the extraction of offshore oil and gas will make a significant contribution to tackling global climate change, particularly if technologies applied in the North Sea can be exported to and deployed in other countries. In June 2020, the sector announced ambitious targets committing to halving operational Green House Gas emissions

⁶ <https://www.ipcc.ch/sr15/>

⁷ <https://www.gov.scot/programme-for-government/>

over the next decade – reductions of 50% by 2030 and 90% by 2040. This is not only an important commitment from one of Scotland's key sectors, but a significant step to support Scotland's just transition to net zero.

The oil and gas industry continues to remain a critical component of the Scottish economy, it has a crucial role to play in the energy transition required to move to an economy and society that generates net zero greenhouse gas emissions. The Scottish Government recognises and supports industry's calls for a North Sea Transition Deal which will support both the industry in its recovery and ensure a just and sustainable energy transition, at pace, for the sector.

The Scottish Government has refreshed the Oil and Gas Industry Leadership Group (ILG) to the newly formed Oil and Gas and Energy Transition Strategic Leadership Group (SLG). This reflects the critical role which the oil and gas industry has to play in driving forward and delivering Scotland's transition to a net zero economy. It also reflects the increasing focus of the previous Oil and Gas ILG on the new industrial and supply chain opportunities which the transition represents for the sector – through leadership and skills development, technological innovation, the development of hydrogen and the establishment of CCUS in Scotland.

In June 2020, informed by the work of the SLG, the Scottish Government announced the creation of a £62 million Energy Transition Fund (ETF) designed to help accelerate a recovery from the COVID-19 pandemic in a key structural sector and region, and help assist with Scotland's long term aims to decarbonise the economy. The ETF will boost the energy sector supply chain, with a number of projects having a particular focus on the North East, to migrate into emerging renewable energy opportunities, help businesses and workers in the region build resilience to economic fluctuations, and help to diversify the energy sector and wider economy whilst maximising inclusive growth impacts. Projects are expected to attract significant private sector investment across the programme.

The Scottish Government continues to support principles and ambitions behind the industry's Roadmap to 2035⁸, with its focus on: developing Carbon Capture Utilisation and Storage (CCUS) and low carbon technologies at scale; underpinning an increasingly diversified energy system; continuing to help the UK meet its energy needs; driving technology and innovation; developing people and skills; and growing the economy and exports.

CCUS will be a vital component of Scotland's energy transition. It is clear that CCUS is required to enable us to decarbonise at the rate we need to reach net zero, CCUS is essential.

The sector's Roadmap 2035 is viewed by the sector as being instrumental to support a green recovery, and the Scottish Government will look to work in partnership with the industry to ensure that the identified actions and targets within the Roadmap are delivered at pace.



8 <https://oilandgasuk.co.uk/roadmap-2035/>

13. Hydrogen and CCUS

Hydrogen

Throughout 2020, the Scottish Government has been widely consulting with stakeholders as we work through our Hydrogen Assessment Project – a high level assessment of hydrogen and its potential to help decarbonise our energy system. This hydrogen assessment is providing a strong evidence base to inform the development of a Hydrogen Policy Statement and Hydrogen Action Plan as was set out in our Programme for Government.

The overarching aim of the Hydrogen Action Plan is to secure a structured, methodical approach to our development of a hydrogen economy, to optimise policy performance, and to make the best of the opportunities the global growth of hydrogen can bring to Scotland in the supply chain, skills, just transition and export markets going forward.

Scotland has a track record of supporting hydrogen innovation and demonstration projects and we are committed to continuing this. For example, the Aberdeen Hydrogen Hub with its initial focus on hydrogen mobility projects in Aberdeen could, alongside other key projects, anchor the development of a place-based hydrogen industry in the North East and support the development of hydrogen projects in other parts of Scotland. Our funding of the hydrogen bus fleet in Aberdeen continues to bear fruit with the funding of 15 new hydrogen double-decker buses in 2020.

The £10m Hydrogen Demonstration Programme announced in this year's budget highlights the need to boost the scale and pace of growth in decarbonising homes and buildings in Scotland. This fund will support hydrogen demonstrator projects and bring forward key projects such as Scottish Gas Network's H100 project in Fife which received £6.9m from the fund this year (2020).

Carbon Capture Utilisation and Storage (CCUS)

The Scottish Government is already supporting efforts to deploy Carbon Capture and Storage (CCS) in Scotland. We have provided support and funding to the Acorn CCS project to drive forward the project's feasibility programme. A standalone industrial CCS project, Acorn will engineer a minimum viable full-chain CCS project to initiate CCS in the UK. The project, located in the North East of Scotland at St. Fergus, near Peterhead in Aberdeenshire, is estimated to be operational by the mid-2020s, and considered the most advanced CCS project in the UK.

The Scottish Government is also providing funding to North East Carbon Capture Utilisation and Storage (NECCUS), an industry-led alliance drawn from industry, academia, membership organisations and private sector bodies to promote CCUS in Scotland. NECCUS are leading an industry consortium to produce Scotland's Net Zero Roadmap (SNZR) for the industrial decarbonisation of large-scale emitters in Scotland via CCUS and hydrogen as part of the UK Research and Innovation (UKRI) Industrial Strategy Challenge Fund CCUS Deployment and Roadmap Competition.

In order to ensure the delivery of this essential technology, the UK Government must deliver on the commitments of its CCUS Action Plan to enable the development of the first CCUS facility in the UK to be commissioned from the mid-2020s.

13. Monitoring and Engagement

Scottish Energy Advisory Board (SEAB)

In 2019, a realignment of the expert group structure underneath SEAB took place to ensure that SEAB remained focused on both seizing the opportunities and tackling the challenges facing the energy industry with regards to innovation, transition and delivery.

New Strategic Leadership Groups (SLGs) were formed to focus on the key areas within Scotland's energy strategy as follows:

- Renewable Energy Strategic Leadership Group;
- Energy Networks Strategic Leadership Group;
- Consumer Leadership Group - The Energy Consumer Commission; and
- Oil and Gas and Energy Transition Strategic Leadership Group.

The most recent meeting of SEAB took place on 17 December 2020, and a standing item on the agenda is an update on progress from the Strategic Leadership Groups to ensure all opportunities to collaborate with SEAB and across all four SLGs are captured.

Just Transition Commission

The Just Transition Commission was established to provide advice on how we can transition to a net zero society by 2045 in a way that maximises the economic and social opportunities, while managing the challenges.

The Commission began its work in January 2019 and, prior to the pandemic, was travelling the country hearing from a wide range of voices regarding Scotland's transition to net zero. Recently, at the request of ministers they have published advice for Government on priorities for a green recovery from COVID-19. They are due to publish their final report to Ministers in early 2021.

International Outreach

Scotland's Energy Strategy recognises the importance of working with international partners to better understand the transition to a net zero economy.

We have a dedicated International Energy Policy Advisor to promote Scotland's Energy Strategy. Over the course of 2019-2020, our international relationships have continued to be developed and strengthened, and we will continue to look to prioritise activity that promotes Scotland's reputation, learning and policy exchange, increasing Scotland's attractiveness to international partners and ensuring a flow of new investment.

Ahead of the rescheduled UN Climate Conference – COP26 – which is due to take place in Glasgow in November 2021, we will continue to enhance our collaboration with international partners to support a global transition to net zero that is fair and just, and leaves no one behind.

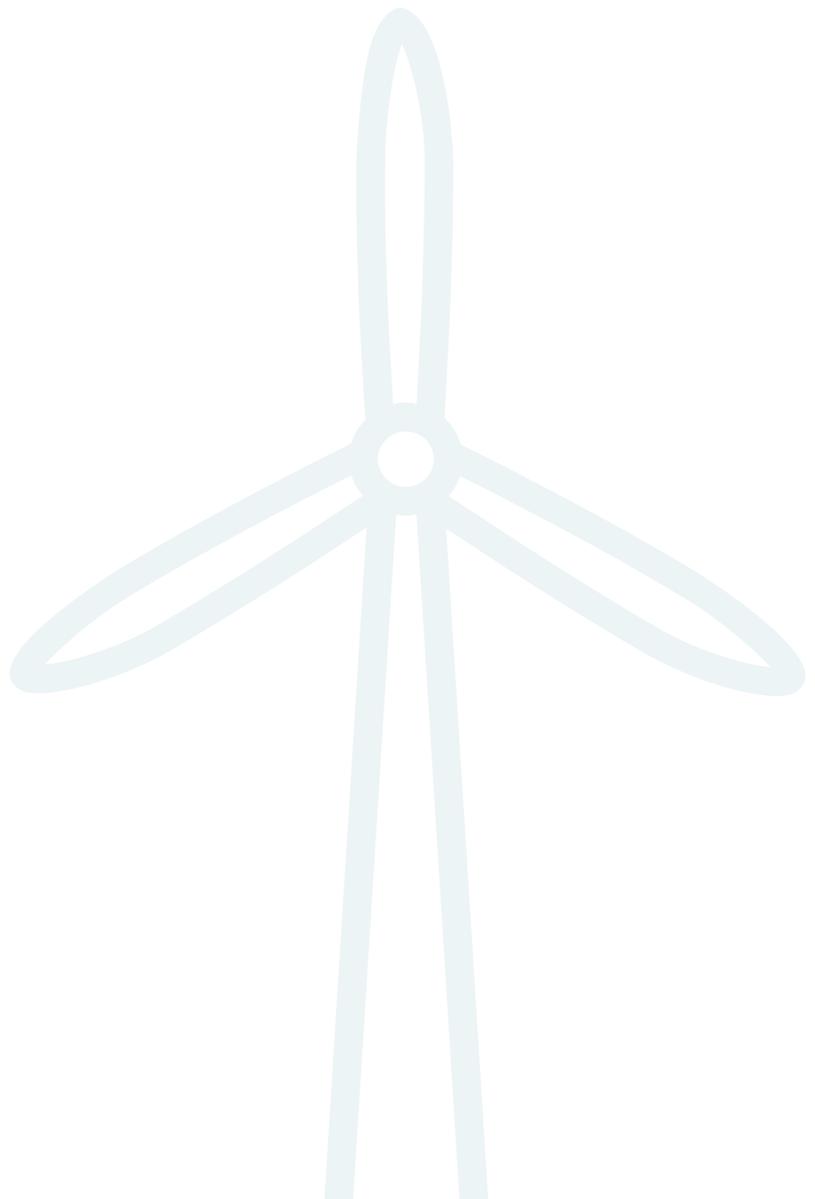
Future Engagement

Early next year, the Scottish Government will publish a policy position for Scotland's Energy Sector. This position statement will build upon engagement we have had with SEAB and across the wider stakeholder landscape.



14. Footnotes

1. <https://www.gov.scot/publications/towards-robust-resilient-wellbeing-economy-scotland-report-advisory-group-economic-recovery/>
2. <https://www.gov.scot/publications/scottish-energy-strategy-future-energy-scotland-9781788515276/>
3. <https://www.gov.scot/publications/vision-scotlands-electricity-gas-networks-2030/>
4. The Scottish energy system is deemed to be secure if domestic generation capacity and secure import capability exceed peak demand levels.
5. <https://scotland.shinyapps.io/sg-scottish-energy-statistics/?Section=RenLowCarbon&Subsection=RenHeat&Chart=GHGHeat>
6. <https://www.ipcc.ch/sr15/>
7. <https://www.gov.scot/programme-for-government/>
8. <https://oilandgasuk.co.uk/roadmap-2035/>





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