



Scottish Energy Strategy:

The future of energy in Scotland



A modern, integrated, clean Energy system, delivering reliable energy supplies at an affordable price in a market that treats all consumers fairly.

A strong low carbon economy - sharing the benefits across our communities, reducing social inequalities, and creating a vibrant climate for innovation, investment and high value jobs.



‘Whole-system’ view

- Examining where our energy comes from and how we use it – for power (electricity), heat and transport: recognising the interactions and effects that the different elements of the energy system have on each other.



Stable, managed energy transition

- Through strong leadership in the transition to a low carbon economy, Scotland’s approach to energy policy can boost our economy while working in harmony with the natural environment, and tackle social inequalities.



A smarter model of local energy provision

- Scottish companies and communities are at the forefront of the development of innovative local energy systems – as part of a varied and proportionate response to the transformation of the global energy system.



2050 Vision

- Scotland has achieved almost complete decarbonisation of the energy system – in line with domestic and international climate change targets
- The equivalent of 50% of all energy consumed in Scotland from renewable sources by 2030
- Scotland is a world-leader in renewable and low carbon technologies and services – and continues to offer technology solutions in oil and gas, and excellence in subsea engineering. This knowledge and expertise is exported internationally
- Urban communities benefit extensively from low carbon heat networks
- Carbon capture and storage is operational at large scale and plays a crucial role in decarbonising Scotland's energy system and industrial processes
- New forms of flexible generation and demand management services are widespread
- Shared ownership of renewables and of local energy systems maximise benefits to Scotland's communities





Increasing the generation of renewable and low carbon energy

- Work closely with UK Government to ensure adequate incentives are in place for renewable and low carbon heat technologies.
- **New 50% 'all energy' 2030 target.**
- Call on the UK Government to provide a stable, supportive regulatory environment to provide certainty to renewable investors.
- **Seek to address distribution and transmission grid constraints on new renewable generation in Scotland.**
- Ensure at least half of newly consented renewable energy projects have an element of shared ownership by 2020.



Exploring the role of new energy sources

- Review of the role of new technologies and energy sources.
- **Consideration of how the planning framework can better support new energy sources.**
- Recognition of hydrogen as a potential low carbon heat solution.
- **Collaboration with UK Government, local government, industry and academia on a UK hydrogen routemap, establishing the strategic basis for hydrogen in the future energy system.**
- Consultation on the evidence available on unconventional oil and gas – [Talking 'fracking'](#).





Support for north sea oil and gas, as a highly regulated source

- A balanced approach, reducing our reliance on imported fossil fuels as part of a managed transition.
- **Maximise opportunities for skills transfer to low carbon industries.**
- Encouragement for the oil and gas industry to produce new, lower-carbon fuels.
- **Through the Energy Jobs Taskforce, and with Oil and Gas Authority, support for industry as it adapts to current economic challenges.**
- Decommissioning action plan.
- **Support for the Oil and Gas Technology Centre.**



Carbon Capture and Storage (CCS) and CO₂ Utilisation (CCU)

- Work with industry to assess opportunities for small scale CCS demonstration and CO₂ utilisation projects in Scotland.
- **Exploration of the opportunity to combine bioenergy production with CCS – with a view to maximise the benefits to the energy system as a whole.**
- Maintain pressure on UK Government to align its CCS strategy with the Scottish Government's energy priorities.
- **Work with industry and the OGA to ensure retention of existing critical infrastructure, suitable for CCS.**





Onshore wind

- A challenge to industry, in partnership with Scottish Government to develop onshore wind in Scotland without subsidy.
- **Consultation on a range of factors influencing onshore wind development, including the efficiency of wind development and consenting procedures – through a [new onshore wind policy statement](#).**
- Consideration of scope for power purchase agreements to support future development.
- **Champion the cause of island wind development.**



Offshore wind

- Support for remaining developments under the Renewables Obligation (Scotland) – supporting floating wind demonstrators.
- **Scottish Government support for innovation and cost reduction, through the Enterprise Agencies and partners such as the Offshore Renewable Energy Catapult and the Carbon Trust.**
- Improved understanding of the impacts of marine developments.



Hydro power

- Reinforced Scottish Government commitment to the encouragement and promotion of hydro within the powers available to it – including pressure on UK Government where necessary.
- **Consultation on appropriate steps to improve the environment for small scale and community hydro power in Scotland.**

Marine renewables

- Support for innovation and cost reduction in wave energy, through continued funding for Wave Energy Scotland.
- **Finance support for marine energy projects through the Renewable Energy Investment Fund – and other financial support mechanisms.**
- Collaboration with the marine renewable sectors to demonstrate to the public and private investment community the strong industrial potential of marine energy.
- **Continued pressure on UK Government to offer support for marine renewable technologies.**



Solar PV

- Consideration of role for solar (and other renewable technologies) as part of a review of energy standards within building regulations.
- **Ensure that good practice guidance for shared ownership developments fully recognises the opportunities for solar.**

Bioenergy

- Recognising the rising interest in bio fuels for a range of uses, commitment to develop a 'whole-system' bio energy action plan, following the publication of the final Climate Change Plan





Increasing the flexibility, efficiency and resilience of the energy system

- Promotion of network flexibility technologies, alongside renewables as basis for a future 'lowest cost' system.
- **Collaboration with UK Government and Ofgem to develop a Smart Energy Plan for the UK, seeking a fair treatment for storage and flexibility mechanisms, including pumped hydro storage, through a 'cap and floor' regime for investment.**
- Support innovation and demonstration of new forms of storage, including support for the 'Power Networks Demonstration Centre' and work under the Energy Technology Partnership.
- Scottish Government support for network investment and interconnection to relieve grid constraints.
- **Continued opposition to current transmission charging regime, which discourages new investment – including in system-stabilising thermal generation.**
- Scottish nuclear plants should not be replaced with new nuclear after the safe decommissioning of existing sites.
- **Invitation of views on repowering large scale thermal generation sites.**



2050 Vision

- Scotland's domestic and non-domestic buildings have undergone a low carbon transformation – substantially reducing greenhouse gas emissions and delivering a host of economic, social, health and regeneration benefits
- Scotland has an energy market that delivers fair outcomes for all consumers – and especially those on low incomes and at risk of fuel poverty
- Scotland has successfully managed a widespread shift to a low carbon transport system – by 2032 over 40% of all new cars sold each year are Ultra Low Emission Vehicles
- Scotland has achieved a significant improvement in the efficient use of energy – with substantially improved energy efficiency in our manufacturing and industrial sectors, as a means to improve competitiveness





Scotland's energy efficiency programme (SEEP)

- Under [SEEP](#), investment and regulation to make Scotland's buildings near zero carbon by 2050.
- [Consultation on district heating regulations and local heat and energy efficiency strategies.](#)
- Proposal for phased regulation and standards for existing buildings.
- **Forthcoming consultation on energy efficiency standards for private rented homes.**
- Review of energy performance of non-domestic buildings regulations.
- **What should Scotland's 2030 energy efficiency target be?**



Improved energy efficiency in manufacturing and industry

- New incentives and packages of business support to help facilitate industrial decarbonisation, through Scotland's Manufacturing Plan and SEEP.
- **Support for improved business energy productivity through Scottish Enterprise, Highlands and Island Enterprise, Scottish Environment Protection Agency and the Scottish Manufacturing Advisory Service.**
- Scottish Government pressure to maintain a level playing field on emissions regulation during Brexit negotiations.



Low carbon transport alternatives



- Funding for active travel infrastructure and behaviour change programmes.
- **New roadmap for adoption of plug-in vehicles.**
- SG negotiation for tighter EU and UK emissions standards for cars and vans – and VED differentials.
- **Enhance capacity of EV charging network – ChargePlace Scotland.**
- Interest-free loans, through the Energy Saving Trust, for Evs.
- **Review of licensing regulations for ULEV taxis with local authorities.**



Consumers, smart technology in the home, new retail models

- Scottish-specific steps to tackle low levels of consumer engagement with the market.
- **Support for new participants in retail market – local energy supply companies, not-for-profits, renewable energy-only suppliers, social housing suppliers.**
- Work with suppliers to explore new routes to support low income households.
- **Home Energy Scotland work to improve consumers' understanding of consumption patterns and smart meter use.**
- Support for retail tariff innovation.



2050 Vision

- Scotland is a leader in the development of local energy systems, providing local solutions to local needs with improved consumer benefit
- Expertise in the management of local energy systems, coordinating the supply, storage and use of many devices, has developed to become a significant export industry
- Local communities play an active part in the delivery of innovative, low carbon energy systems, have the opportunity to influence energy planning from the outset, and receive community benefit (in various forms) from energy generation
- Local energy plans, drawing on best data on energy supply and use, are drawn-up in collaboration with local authorities in every region of Scotland, acting as a commercial investment prospectus and coordinating an area-based approach to public investment





Supporting the demonstration and growth of innovative projects

- Under the Community and Renewable Energy Scheme (CARES), provide advisory and technical support for community and local renewable energy schemes.
- **Extensive financial and demonstration support through: the Low Carbon Infrastructure Transition Programme, CARES Local Energy Challenge Fund, CARES Infrastructure and Innovation Fund, Renewable Energy Investment Fund and the District Heating Loan Fund.**



Partnership between communities, private and public sectors

- Develop strategic approaches to local energy systems, drawing on Scotland's heat map and the Energy Masterplanning approach.
- [Consult on local heat and energy efficiency strategies.](#)
- An enhanced role for local authorities and city regions to deliver new local energy system investment.
- **Explore potential for a government owned energy company and the creation of a Scottish Renewable Energy Bond.**



2050 Vision

- Scotland has a thriving energy sector, with public and private sectors working together to deliver the 2050 vision
- Scotland continues to work at the leading edge, adapting and taking advantage of new energy technology and systems
- The Scottish public are informed, helping them shape Scotland's energy future





Working in partnership to sustain a thriving energy sector

- Refocused Scottish Energy Advisory Board, supported by a network of industry, academic and consumer-led advisory groups.
- **Collaboration with local authorities and COSLA in the development and implementation of the energy strategy.**
- Alignment of Enterprise and Skills agencies behind the objectives of the final energy strategy.
- Review the Energy Skills Investment Plan in light of the Energy Strategy.
- **Promote collaboration between universities and industry.**



Monitoring Scotland's Energy Strategy

- Publication of an Annual Energy Statement each summer, taking into account: latest energy statistics, greenhouse gas statistics, wide range of evaluation on the effectiveness of Scottish Government and UK Government energy schemes.
- **An energy monitoring framework, in line with the framework developed for the final Climate Change Plan.**





Deepening public engagement

- Consultation will include new approaches to public participation and engagement:
 - raising awareness to improve understanding of choices among citizens,
 - encouraging greater sense of ownership and control amongst communities and individuals,
 - using public participation to co-design and improve programmes.
- Development of an engagement plan to be published as part of the final Energy Strategy, including:
 - **Information sharing**
 - **Local conversations**
 - **Consultation, engagement and deliberation**



Draft Energy Strategy - List of Questions

1. What are your views on the priorities presented in Chapter 3 for energy supply over the coming decades? In answering, please consider whether the priorities are the right ones for delivering our vision.
2. **What are your views on the actions for Scottish Government set out in chapter 3 regarding energy supply? In answering, please consider whether the actions are both necessary and sufficient for delivering our vision.**
3. What are your views on the proposed target to supply 50% of all Scotland's energy consumption from renewable sources by 2030, including for heat and transport? In answering, please consider the ambition and feasibility of such a target and any ideas you have about how we can achieve it.
4. **What are your views for the development of an appropriate target to encourage the full range of low and zero carbon energy technologies?**
5. What ideas do you have about how we can achieve commercial development of 'subsidy-free' onshore wind in Scotland without revenue support?
6. **What are your views on the potential future for Scotland's decommissioned thermal generation sites?**
7. What ideas do you have about how we can develop the role of hydrogen in Scotland's energy mix?
8. **What are your views on the priorities presented in Chapter 4 for transforming energy use over the coming decades? In answering, please consider whether the priorities are the right ones for delivering our vision.**
9. What are your views on the actions for Scottish Government set out in chapter 4 regarding transforming energy use? In answering, please consider whether the actions are both necessary and sufficient for delivering our vision.
10. **What ideas do you have about what energy efficiency target we should set for Scotland, and how it should be measured? In answering, please consider the EU ambition to implement an energy efficiency target of 30% by 2030 across the EU.**
11. What are your views on the priorities presented in Chapter 5 for developing smart, local energy systems over the coming decades? In answering, please consider whether the priorities are the right ones for delivering our vision.
12. **What are your views on the actions for Scottish Government set out in this chapter regarding smart, local energy systems? In answering, please consider whether the actions are both necessary and sufficient for delivering our vision.**
13. What are your views on the idea of a Government-owned energy company to support the development of local energy? In answering, please consider how a Government-owned company could address specific market failure or add value.
14. **What are your views on the idea of a Scottish Renewable Energy Bond to allow savers to invest in and support Scotland's renewable energy sector? In answering, please consider the possible roles of both the public and private sectors in such an arrangement?**
15. What ideas do you have about how Scottish Government, the private sector and the public maximise the benefits of working in partnership to deliver the vision for energy in Scotland?
16. **What ideas do you have about how delivery of the Energy Strategy should be monitored?**
17. What are your views on the proposed approach to deepening public engagement set out in Chapter 6?



[Consultation on a Scottish Energy Strategy: The future of energy in Scotland - Scottish Government - Citizen Space](#) (Closing 30 May)

[National Infrastructure Priority for Energy Efficiency - Scotland's Energy Efficiency Programme](#) (Closing 30 May)

[Consultation on Heat and Energy Efficiency Strategies, and Regulation of District Heating - Scottish Government - Citizen Space](#) (Closing 18 April)

[Consultation on a Draft Onshore Wind Policy Statement - Scottish Government - Citizen Space](#) (Closing 30 May)

[Strategic Environmental Assessment Environmental Report on the Draft Climate Change Plan and Draft Scottish Energy Strategy](#)

[Talking "Fracking": A Consultation on Unconventional Oil and Gas - Scottish Government - Citizen Space](#) (Closing 31 May)

