

# Local Energy Policy Statement

January 2021



Scottish Government  
Riaghaltas na h-Alba  
gov.scot

# CONTENTS

	Pages
Ministerial Foreword	i - ii
Purpose	1
Context	1 - 2
Journey to Net Zero	4
Key Principles	5
Chapter 1: <b>People</b>	7
Chapter 2: <b>Places</b>	13
Chapter 3: <b>Networks &amp; Infrastructure</b>	19
Chapter 4: <b>Pathway to Commercialisation</b>	25
Chapter 5: <b>Opportunity</b>	31
Delivery Framework: 2020 – 2023	37

# LOCAL ENERGY POLICY STATEMENT

## Ministerial Foreword

The past ten months have been a very testing time for everyone. The COVID-19 pandemic has touched every aspect of our lives and will likely continue to do so for a long time. We are now carefully and cautiously moving into the recovery phase. As we do so, our aim is to ensure that Scotland's economic recovery promotes inclusive growth, creates opportunities for all, and supports and accelerates our transition towards a net-zero economy.

Consumers and Scotland's local communities are integral to both our green recovery and the ways in which we will rebuild following the pandemic. I want to ensure they remain front and centre, and able to reemerge stronger with increased resilience. This Local Energy Policy Statement, underpinned by ten principles sets out how we can achieve this.

Our energy system is changing, with renewable and low carbon energy providing the foundation of our future energy system. By 2030, we aim to be able to generate 50% or more of Scotland's overall energy consumption from renewable sources, and by 2045 we aim to decarbonise our energy system almost completely. A shift towards more localised energy solutions is a vital part of our journey to a net zero future with Local Energy developing alongside (and within) a vibrant national energy network.

The local energy landscape is complex. It involves a range of different links, relationships and interdependencies which this statement seeks to explain. Links with other key Scottish Government policies include the heat decarbonisation challenge, tackling fuel poverty and supporting local heat and energy efficiency strategies.

We have a strong foundation to build on. For over a decade the Scottish Government's flagship Community and Renewable Energy Scheme (CARES) has provided support to hundreds of local community groups and other eligible organisations to develop, own and/or take a stake in local renewable energy projects across Scotland. The post COVID-19 green recovery now requires a shift in focus to decarbonisation as the key driver for community-led action at a local level.

In response to the feedback from the consultation process, a Delivery Framework has been produced which sets out a number of actions that will be taken forward by us and others to support the policy statement's implementation.

I would like to thank the Steering Group who attended meetings and shared their expertise, all those who responded to the public consultation, and those who attended workshops and webinars. All views received were greatly appreciated and helped shape this Policy Statement.

Although we have a long road still to travel with COVID-19, it is already clear that our recovery must make Scotland more resilient to future crises, including those associated with climate change. A just transition to net zero is crucial to building our resilience, and will help deliver a recovery from the pandemic that supports emissions reductions, while ensuring that industry and communities benefit across Scotland.

## LOCAL ENERGY POLICY STATEMENT

In anticipation of a 'new normal' it is paramount that we all work together. In doing so we have a chance to build a fairer and greener society and economy – one that will thrive.

A handwritten signature in black ink, reading "Paul Wheelhouse". The signature is written in a cursive, flowing style.

Paul Wheelhouse MSP  
Minister for Energy, Connectivity and the Islands

# LOCAL ENERGY POLICY STATEMENT

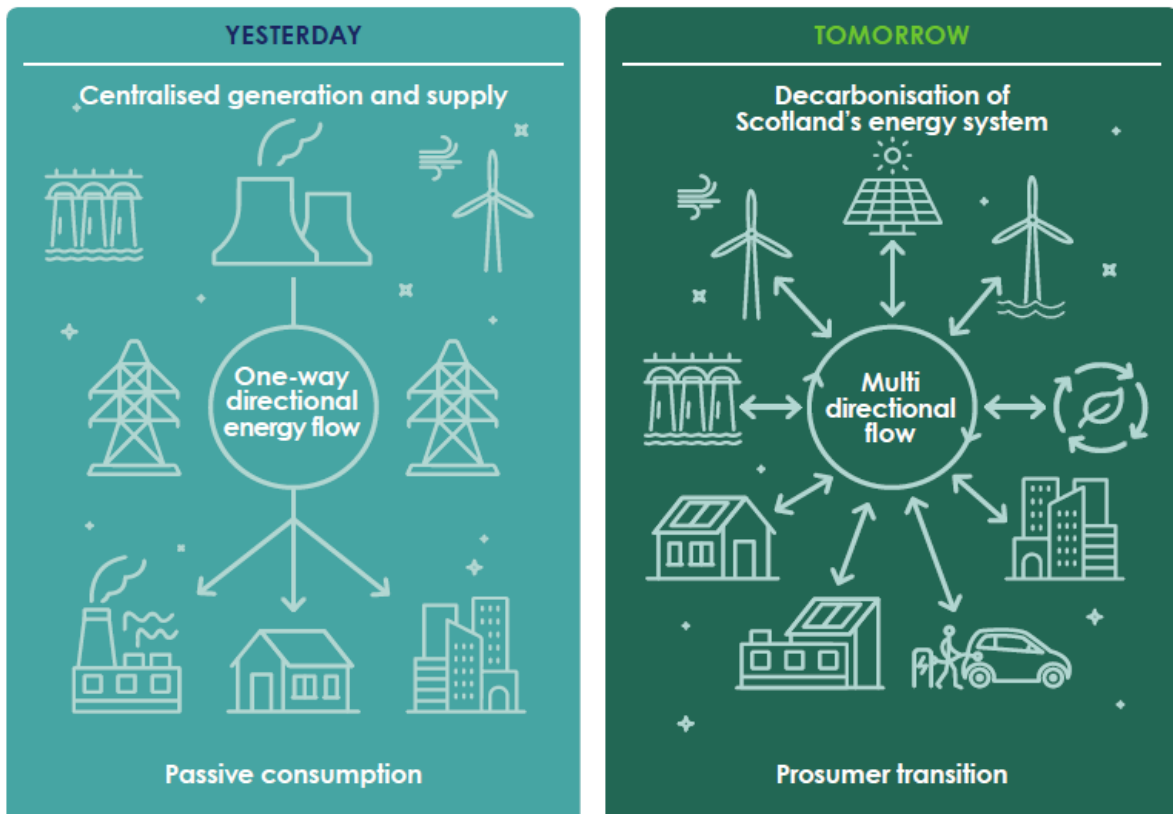
## PURPOSE

To set out the approach the Scottish Government wishes to promote to help and inform decisions, of all those participating in or developing local energy projects as Scotland's energy system transitions to a low carbon future.

It is underpinned by a set of key principles, and associated outcomes that we wish to see adopted. They represent the values that will support a just, inclusive energy transition - one that has people at its centre, supported by strong partnership working and collaboration at a local community level.

This approach aligns with the Scottish Government's overall vision for recovering from the Covid-19 pandemic in a way that builds a fairer and greener society and economy.

An accompanying Delivery Framework will be taken forward by the Scottish Government and others to support the implementation of the statement.



## CONTEXT

Scotland's energy system is changing, with a shift away from power generated from fossil fuel plants to substantial increases in renewable generation. This means there will be a greater role for considering local energy solutions to meet local energy needs.

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

## LOCAL ENERGY POLICY STATEMENT

What is clear however, is the way that we generate supply and use our energy will continue to change fundamentally in the coming years, and these changes will differ from place to place - based on local need and opportunity.

In this transitional phase, we must not lose sight that our overall approach to energy is driven by the need to decarbonise the whole energy system. This is in line with Scotland's target to reach net-zero emissions of all greenhouse gases by 2045, set under the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019<sup>1</sup>.

The Scottish Government recognises that local energy cannot be delivered in isolation. It is not a standalone policy but one that integrates and aligns with other key Scottish Government policies including, energy efficiency, eradicating fuel poverty, heat decarbonisation, local heat and energy efficiencies strategies and consumer protection. In addition, it will develop alongside (and within) a vibrant national energy network.

In summary, the local energy landscape is complex, and involves a range of different links, relationships and interdependencies which this statement seeks to explain. This is critical to ensuring that Scotland can transition to a net zero future by 2045 in a way that delivers secure, affordable, clean energy for Scotland.

### REVIEW

We will review the statement after 3 years to ensure it remains relevant.

### DEFINITIONS

For the purposes of this statement the following definitions are used:

**Community energy** is the delivery of community-led renewable energy projects, whether wholly owned and/ or controlled by communities, or through partnerships with commercial or public sector partners. The Scottish Government views community-led energy projects as a priority within the wider local energy landscape.

**Local energy** is more wide ranging, involving a range of different organisations (public, private, and community sector), who are delivering an energy service/project for the benefit of local people operating within a defined geographical area.

**Local energy systems** are ones which find ways to link the supply and demand of energy services within an area across electricity, heat and transport, delivers real value to everyone in local areas, and support the growth of vibrant, net zero local economies.

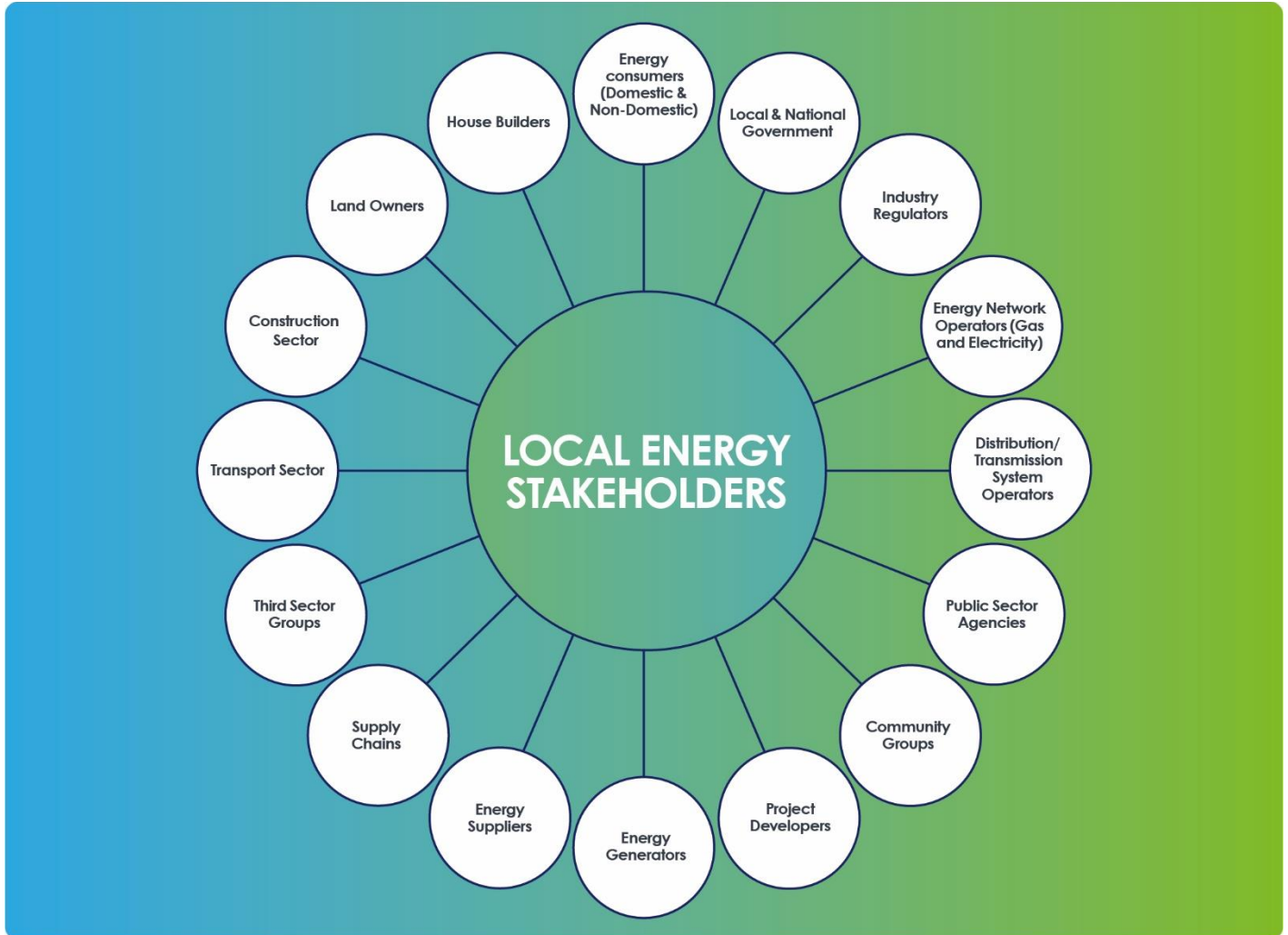
### Local Energy Stakeholders

---

<sup>1</sup> <http://www.legislation.gov.uk/asp/2019/15/contents>.

## LOCAL ENERGY POLICY STATEMENT

There are a wide range of stakeholders involved in developing, delivering and interacting with local energy projects. These include people and organisations, ranging from individual energy consumers to network operators, and from community organisations to large energy generators and suppliers, as highlighted in the diagram below:

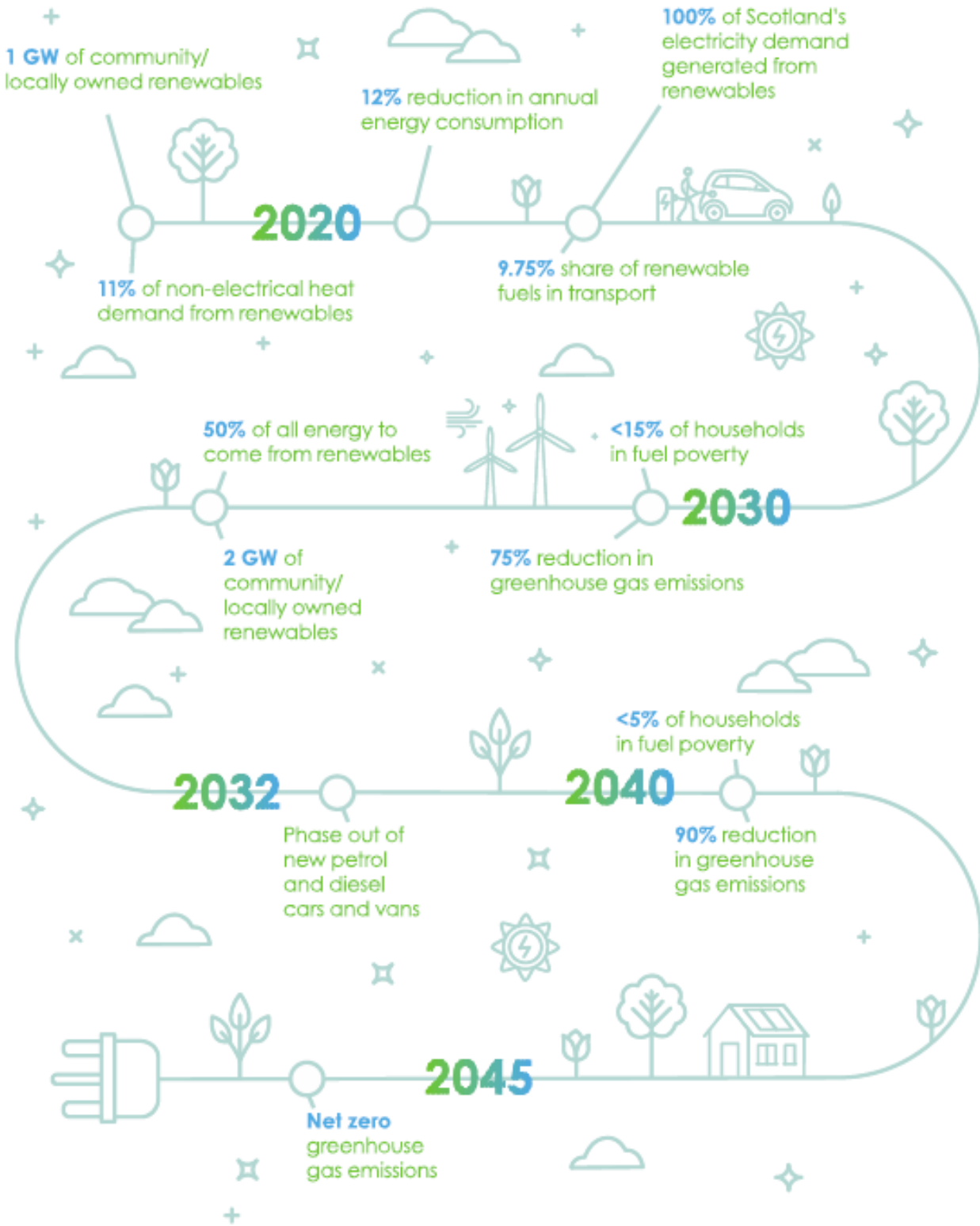


A common request from the consultation was for the roles and responsibilities of different stakeholders to be clarified and we have undertaken to do this.

### **We will**

- Set out a framework outlining stakeholders' roles and responsibilities.

## JOURNEY TO NET ZERO





# KEY PRINCIPLES

## People



**1** Undertake early engagement with people who will be involved, directly and indirectly.

**2** Recognise and tailor support to the different ways people will want to engage.

## Places



**3** Local energy projects should reflect local characteristics.

**4** Focus on collaborative strategic approaches and partnership working.

## Network & Infrastructure



**5** All activity should provide a high level of security and quality of supply to all, with an emphasis on consideration of existing energy infrastructure first.

**6** The design and operation of energy networks should consider the whole energy system while supporting local, regional and national solutions.

## Pathway to Commercialisation



**7** Prioritise projects that demonstrate a commercially viable and replicable opportunity, in line with the principle of inclusive growth.

**8** Prioritise and act upon "low regret" opportunities that support net zero emissions.

## Opportunity



**9** Local energy projects should seek to support the creation of high value jobs, including the development of the Scottish supply chain.

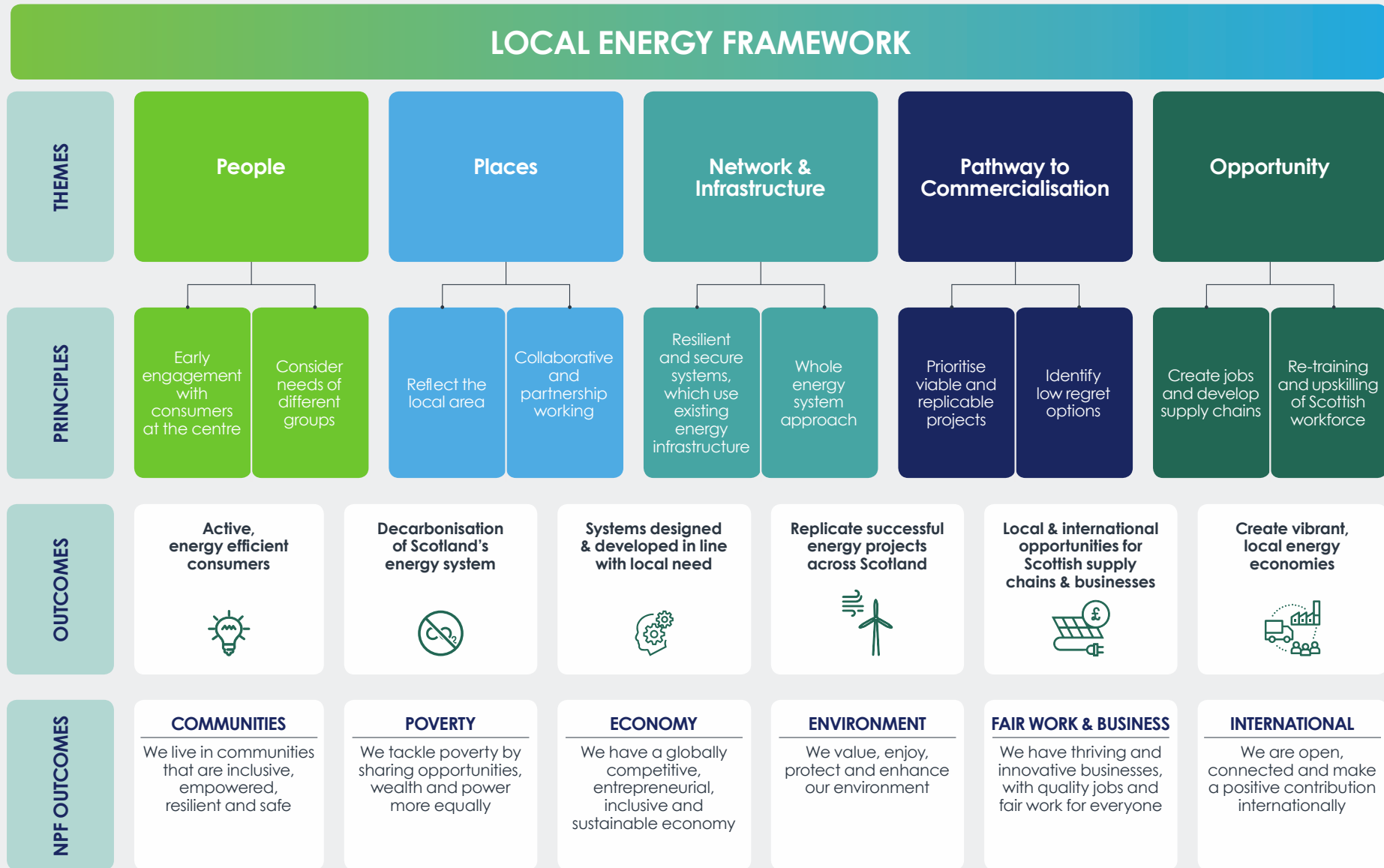
**10** Any changes to the energy system should ensure a just transition for Scotland's workforce.

## We Will



- **Include** a requirement in the next CARES contract to establish a register to promote the adoption of our Principles and monitor progress.
- **Ensure** the Principles are aligned with Local Heat and Energy Efficiency Strategies (LHEES).
- **Ensure** that that the next CARES contract promotes the adoption of our Principles.

# LOCAL ENERGY POLICY STATEMENT



### CHAPTER 1: PEOPLE Building a future energy system that is shaped by and for the people of Scotland

#### Principles

- Undertake early engagement with people who will be involved, directly and indirectly.
- Recognise and tailor support to the different ways people will want to engage.

**This chapter highlights that the way people interact with energy will change in the future and discusses what this might mean for people and communities.**

#### 1.1 A future shaped by people

The Scottish Government's vision is to build a future energy system that is shaped by and for the people of Scotland. By people we mean all energy users, living and working within a community and/or businesses.

Local energy is wide-ranging, touching on many different areas and impacting on everyone – regardless of who you are or where you live.

In 2019, the Scottish Government published our *Energy Consumer Action Plan*<sup>2</sup> which established a framework to place energy consumer considerations at the heart of Scotland's energy policy – from local energy to energy efficiency and electric.

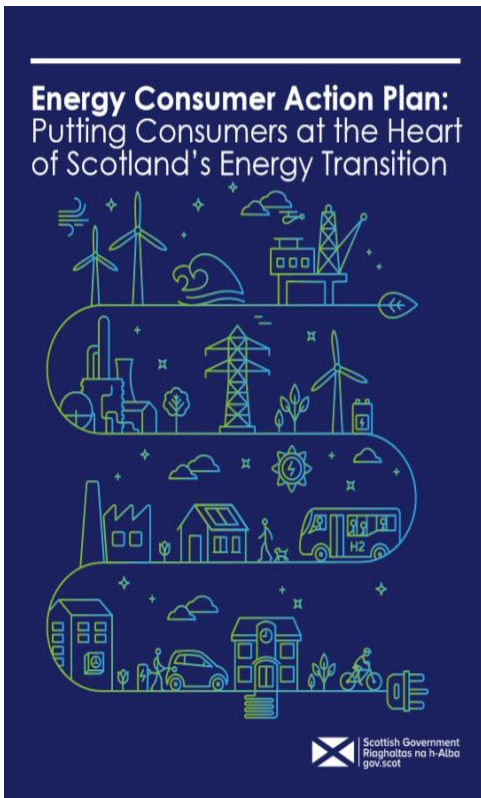
The Action Plan recognised the role that Scotland's energy consumers will play in making a net zero emissions Scotland a reality and for the behaviour change required in consumers for this to take place, we must ensure that any change happens *with* people, not to them.

Across the sector we must act now to improve our understanding of people's needs and interests, taking steps to protect them from regressive impacts, and encouraging the changes in behaviour which are critical to achieving net zero emissions.

---

<sup>2</sup> <https://www.gov.scot/publications/energy-consumer-action-plan-putting-consumers-heart-scotlands-energy-transition/>

### Energy Consumer Action Plan



Top priorities of the plan include:

- Establishing an independent Energy Consumer Commission for Scotland to give people a more powerful voice in devolved energy policy and those areas reserved to the UK government.
- Investing in new approaches to ensure that the energy market works for all energy consumers, including the most vulnerable, through our Improving Consumer Outcomes Fund.
- Advocating for much needed reforms to the energy market to the UK Government, industry and Ofgem

## 1.2 Future energy system

There is still uncertainty around what a future energy system will look like. What is clear is there will be more choice in the ways people produce, consume and purchase the energy they need and thus, the ways in which people interact with the energy system is likely to be more complex than the current arrangements.

At present, the most informed people are able to take advantage of the opportunities that new local energy services can offer: we need to raise general awareness across all of Scottish society to ensure everyone becomes better informed and can take advantage of these opportunities.

The responsibility to make that happen is a collective one, involving a wide range of stakeholders across the energy sector, not solely the Scottish Government. We all have a responsibility to provide support and advice to help engage people. Only then can people begin to make the changes required to deliver net zero by 2045 in a way that is fair and inclusive.

## LOCAL ENERGY POLICY STATEMENT

### 1.3 Building on strong foundations

Scotland has a legacy of strong community engagement in local renewable energy generation projects. Our flagship Community and Renewable Energy Scheme (CARES)<sup>3</sup> has supported hundreds of local community groups and other organisations to develop, own and/ or take a stake in local renewable energy projects across Scotland.

The Scottish Government had a target for 500MW by 2020 which was exceeded, and we increased this to 1 GW for 2020 and 2 GW for 2030. Progress towards this target has been positive, but changes in UK Government subsidies (for example, the closure of the Feed-in Tariff Scheme) has undermined progress. However we continue to encourage shared ownership models as a means of increasing community-led involvement in commercial projects.

As we move towards recovery from the pandemic there needs to be greater focus and priority given to decarbonisation as the driver for community-led action. New opportunities for communities will arise in the shift towards more localised energy solutions, giving more influence and choice and in doing so improving the quality of life for those living there.

Local energy projects will be more complex (for example, involving multiple stakeholders, new technologies, etc.) and involve more diverse groups of people within a local community, each with their own specific objectives. This means that people both as individuals and as part of wider-communities - will become more relevant and important. However, for each of these groups, the common expectations are that the energy system will be affordable, secure, reliable and resilient.

The Delivery Framework sets out a number of actions that will be taken forward to enhance support for community-led activity within the next CARES contract period which starts from 1 April 2021.

---

<sup>3</sup> <https://www.localenergy.scot/>

## LOCAL ENERGY POLICY STATEMENT

### Case Study: Greener Kirkcaldy

Greener Kirkcaldy, a community-led development trust in Fife, works locally to benefit people and the environment.

They would like to see a future where everyone can heat their home affordably, eat well, and tread lightly on our planet.

They want their local community to get ahead of the curve during this period of transition to a low carbon energy system and make sure no-one gets left behind. They are planning to install solar PV on their community building, and have secured Scottish Government funding to add battery energy storage to make the most of the energy generated. Once it is installed, they will demonstrate their energy system to other community centres in Fife, to help them future proof their facilities and be ready to engage in a more locally managed, low carbon energy system.

They are also planning to inform their community about solar PV and storage, brief them on changes coming in the wider energy system and how individuals might engage and benefit from this engagement.

Greener Kirkcaldy are participating in Community Energy Scotland's 'Community Energy Futures' programme. This is helping build the knowledge and capacity of community groups in areas of high fuel poverty, to help their communities gear up and benefit from the coming energy changes so that no-one is left behind.



## 1.4 Early engagement

It is important that organisations developing projects or providing enabling infrastructure undertake meaningful and open engagement with the people and communities who have an interest, there are many organisations across Scotland who are already well established within communities who are known, trusted and can help. We encourage all to explore how local trusted organisations can support project development.

Community engagement should start as early as possible and should continue throughout the development phase of the activity and also throughout construction, operation and beyond. When planning an initial community consultation, it may be helpful to consider:

- What should be the geographical area to engage (as linked to Chapter 2)?
- Within that area, who are the appropriate contacts and communities of interest for consultation?
- How best can vulnerable groups within the community can be engaged and represented?

## LOCAL ENERGY POLICY STATEMENT

There are already processes in place at a local level that require consultation, led by the Local Authority, primarily to support planning. These could, potentially, be adapted to include local energy needs. The Scottish Government's Good Practice Principles<sup>4 5</sup> for renewable energy developments provides a good starting point in helping a community to understand what's involved.

When dealing with people, who are often removed from the energy system and its development, it will be important to be clear what the rationale is for the project or proposal and that this is done in a way that is easy to understand. For example, is the focus energy security, low carbon heat, or the introduction of more electric vehicle charging infrastructure. This will help in reassuring people and also help with future projects.

### 1.5 No one is left behind

The Scottish Government recognises that achieving its ambitions for tackling climate change will require transformation across our economy and society. As the pace of our transition increases, the need to ensure it is just becomes ever more important. That is why the Scottish Government has taken world-leading action to embed Just Transition principles<sup>6</sup> in our Climate Change legislation.

The Scottish Government has also established a Just Transition Commission<sup>7</sup> to provide practical advice on '*a net-zero economy that is fair for all*'. It is considering how to achieve this in a way that tackles inequality and poverty, while promoting a fair and inclusive jobs market. The commission started work in January 2019 and produced an interim report in February 2020. In light of COVID-19, the need to ensure a just transition is more important than ever.

The Fuel Poverty (Targets, Definition and Strategy) (Scotland) Act 2019<sup>8</sup>, passed with unanimous support across Parliament in 2019 set out ambitious targets towards eradicating fuel poverty across Scotland.

The future energy system is likely to see rapid changes in technology and innovation. This is expected to bring more choice for consumers (both domestic and business users), and greater economic opportunities/ benefits for Scotland. However, it is important to recognise that there may be additional costs, and that some people may struggle to grasp the new opportunities in the energy market. Consideration must be given as to how low income families across Scotland are not unfairly burdened with these costs and to ensure that their energy is affordable.

---

<sup>4</sup> <https://www.gov.scot/publications/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments/>

<sup>5</sup> <https://www.gov.scot/publications/scottish-government-good-practice-principles-shared-ownership-onshore-renewable-energy-developments/>

<sup>6</sup> [http://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---emp\\_ent/documents/publication/wcms\\_432859.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf)

<sup>7</sup> <https://www.gov.scot/groups/just-transition-commission/>

<sup>8</sup> <https://www.parliament.scot/parliamentarybusiness/Bills/108916.aspx>

## LOCAL ENERGY POLICY STATEMENT

An Equality Impact Assessment and Fairer Scotland Impact Assessment has been undertaken in conjunction with this Policy Statement.

### 1.6 Driving Demand Reduction

Reducing Scotland's energy demand is a key component of the energy transition. Smarter energy systems, combined with more energy efficient homes and more empowered and knowledgeable people who have greater control over their energy, will be large factors in achieving a net zero economy.

Energy Efficient Scotland<sup>9</sup> is the Scottish Government's 20 year programme containing a set of actions aimed at making Scotland's existing buildings near zero carbon by 2045 in a way that is socially and economically sustainable. By the end of the programme Energy Efficient Scotland will have transformed the energy efficiency and heating of Scotland's buildings making existing homes, shops, offices, schools and hospitals more comfortable and easier to heat.

However, this role should not fall to the Scottish Government alone - it is critical that there is a shared purpose and responsibility encompassing all of Scottish society for reducing our energy demand and being responsible consumers of energy.

#### **We Will**

- Review how the Just Transition Commission recommendations and principles, when published, can be applied to those developing local energy projects.
- Provide a tailored package of advice and support to develop community-led projects, with a focus on decarbonisation, in the next CARES contract period which starts on 1 April 2021
- As part of the next CARES contract period, identify and support disengaged and vulnerable groups, including direct support to specific groups and awareness raising more generally in local communities.

---

<sup>9</sup> <https://www.gov.scot/policies/energy-efficiency/energy-efficient-scotland/>



### **CHAPTER 2: PLACES** The development of innovative local energy projects, designed to meet local needs, can improve the quality of life for those living there.

#### **Principles**

- **Local energy projects should reflect local characteristics.**
- **Focus on collaborative strategic approaches and partnership working.**

**This chapter outlines how a co-ordinated and planned approach to meeting all energy needs within defined local areas could support people living and working there in the transition to net zero.**

## **2.1 Recognising local difference**

Recognising the individual characteristics of an area is key to planning the transition to a net zero future. Each local area will have different physical characteristics, for example, geography, building stock, and existing energy infrastructure. Equally each area will also have its own ambitions and priorities, such as, reducing fuel poverty, increasing life expectancy, improving employability, creating new employment opportunities, and/ or reducing declining populations.

## **2.2 Scotland's Islands**

The implementation of the National Islands Plan will build on and align, with Scotland's wider climate change commitments, policies and strategies, as well as with existing energy related schemes.

To complement the National Islands Plan, and to ensure the continuing energy resilience of our Islands, we will develop a Scottish Islands Energy Strategy to support them in their journey to decarbonisation and publish in 2021.

#### **Scotland's Islands**

Our islands can be at the forefront of the transition to low carbon energy.

The introduction of climate change adaptation and mitigation measures, whether increased revenue for island communities through renewable energy projects or the protection, recovery, restoration or enhancement of natural carbon stores (on land or in the sea) or the introduction of solutions to combat coastal erosion, can have a direct, positive effect on the local economy and environment.

## LOCAL ENERGY POLICY STATEMENT

### 2.3 More change and choices

Scotland has a strong track record of delivering renewable electricity, predominantly in rural and island areas. In the first half of 2020, Scotland generated 17.5 TWh of renewable electricity, up 16.6% on the same point in 2019, and is the equivalent of almost three quarters of Scotland's annual electricity consumption. Increases in rainfall and wind speed in Q1 2020 contributed to this - compared to the first half of 2019, onshore wind generation is up 13.4%, offshore wind generation is up 25.0% and hydro generation increased by 32.5%.

The change from fossil fuel generation to renewable generation has, for the majority of people, not had an impact on how they interact with the energy system where they live or work as the energy generated has gone directly into the grid.

However, as part of the transition towards sustainable, localised sources of energy (including for heat and transport), it is likely that people will be exposed to greater system changes and choices.

#### **Case Study: Heat Smart Orkney**

The Heat Smart Orkney project was set up to establish and show how smart controls and local rebating can be used as a way of both mitigating the effects of curtailment on the Rousay, Egilsay & Wyre (REW) community wind turbine while also addressing the issue of fuel poverty in Orkney.

Supported with £1.25 million from the Scottish Government's Local Energy Challenge Fund, the project works by diverting unused renewable energy into affordable heating, and is activated when the REW turbine is curtailed.

Smart storage heaters, flow boilers, hot water cylinders and immersion heaters are installed into participating homes as secondary heating devices, and these are switched on when a signal is sent from the turbine, via a cloud based platform to control equipment attached to each device – saving costs for individual householders.

Rather than watching the community turbine be turned off when the wind picks up, the community will be able to watch it continue to turn, knowing that local people are receiving cheap, green heat.

To reach our commitment to net zero by 2045<sup>10</sup>, it will be crucial that we all actively consider how to decarbonise the whole energy system (electricity, heat and transport). Alongside this, energy providers will have responsibility to ensure they are providing reliable, resilient, and affordable energy for the people of Scotland.

### 2.4 Strategic Approaches

The Scottish Government is committed to developing strategic approaches, based on locally distinctive needs, opportunity and priorities. An example is our "Place Principle"

<sup>10</sup> <https://www.gov.scot/policies/climate-change/climate-change-bill/>

## LOCAL ENERGY POLICY STATEMENT

approach. The core values such as, collaboration, integration and community involvement are equally relevant to planning and developing local energy projects.

### Place Principle

The Scottish Government, in collaboration with the Convention of Scottish Local Authorities (CoSLA), have agreed to adopt the "Place Principle"<sup>11</sup>. The Place Principle provides a shared understanding of place, it helps overcome organisational and sectoral boundaries, encourages better collaboration and community involvement, and improves the impact of our combined resources and investment.

It is a common sense approach, providing a collective focus to support inclusive and sustainable economic growth, while creating places which are both successful and sustainable.

Implementation of the Place Principle requires a more joined up, integrated, collaborative and participative approach to decisions about services, land and buildings. It understands that, to maximise the positive impact of combined resources, each party involved must work better together, so that the whole is greater than the sum of its parts.

## 2.5 Local energy planning approach

When referring to local energy planning there is no single approach, each one is specific to an organisation's particular purpose, for example:

- Focus on a specific energy service (heating in buildings) or cutting across different services (e.g. including EV charging).
- Focus on network planning.
- Focus on coordinating delivery of wider changes to local energy services.
- Driven by public authorities, commercial organisations or community groups.
- Local strategies produced for all of Scotland, or voluntarily for specific places.

This was highlighted in the consultation feedback, with a request for more clarity. The Scottish Government will provide further guidance on "local energy planning" to support and inform decision-making at a local level, and this is included in the Delivery Framework.

## 2.6 Scottish Government's Priority for statutory local energy planning.

The Scottish Government's priority will be focused on where we have devolved powers in heat and energy efficiency. As such, Local Heat and Energy Efficiency Strategies (LHEES) will be the foundation of local energy planning. LHEES will set out the long-term strategic plan for each local authority area for heat decarbonisation and energy efficiency, tailored to local circumstances. They will support engagement across multiple stakeholders including individuals, business owners, community groups, and energy network operators.

We are proposing that the production of LHEES should be a statutory duty of local authorities. This will ensure planning takes place consistently and the benefits are felt across

<sup>11</sup> <https://www.gov.scot/publications/place-principle-introduction/>

## LOCAL ENERGY POLICY STATEMENT

Scotland. We will work with local government partners to develop this statutory duty. We think the scope of the LHEES duty should focus on energy efficiency and heating in buildings rather than the full range of local energy issues. In part this reflects our devolved powers over heat and energy efficiency. But it also reflects the close coupling of energy efficiency and heating technologies in local strategies and delivery activities.

We have funded LHEES pilots in all local authority areas across Scotland. This will inform our work going forward. A summary of LHEES activity to-date, and future activity is summarised below. This work will be progressed and agreed in collaboration with local government partners.

### Local Heat and Energy Efficiency Strategies (LHEES)

#### LHEES Pilots

The Scottish Government has been working with all local authorities in Scotland to pilot different approaches and methodologies for LHEES, at a smaller scale, focusing on specific places, or particular segments of the building stock.

#### Shared Understanding

As we take steps to introduce a statutory duty, we will work with local government partners to reach a shared understanding, which will form the basis of our approach.

#### Tools and Resources

In collaboration with local authorities and delivery partners, we will develop the tools, methods and other resources that will support each local authority to construct their LHEES.

#### Long-term V short term

LHEES need to take into account the long term changes to the building stock needed to meet national targets (including fuel poverty targets), as well as setting out near term actions that will be taken to make progress.

To ensure these two aspects are integrated into a LHEES, we are proposing each LHEES comprises of (1) a Strategy and (2) a Delivery Plan.

#### LHEES Strategy

**Purpose:** To set out the long-term plan for heat decarbonisation and energy efficiency in the local authority area.

#### Key elements:

- Show how each segment of the building stock needs to change to meet national objectives, including achieving net zero greenhouse

## LOCAL ENERGY POLICY STATEMENT

gas emissions in the building sector, and the removal of poor energy efficiency as a driver of fuel poverty.

- Generation of spatial zones which local authorities and the Scottish Government will use as an evidence base for delivery through Energy Efficient Scotland and other programmes.
- Take account of local policies and priorities in shaping Strategies, ensuring proposed upgrades to the building stock are aligned with local issues.
- Function as the backbone of the LHEES, establishing a shared understanding across stakeholders as to what energy efficiency and low carbon heating installations will be needed across the local area and on what timescales.
- This would support coordinated action and send clear investment signals across supply chains and to infrastructure providers.

### LHEES Delivery Plan

**Purpose:** To set out how local authorities, their partners, and the Scottish Government propose the Strategy be delivered over a 3-5 year period.

### Key elements

- Clarify and agree the roles and responsibilities that local authorities and the Scottish Government will share in delivering actions in the Zones.
- Build on existing documents, such as existing area based scheme plans (e.g. HEEPS: ABS), as far as possible.
- Initial LHEES would focus on off-gas grid areas, heat networks in urban areas, as well as identifying areas in which building owners acting in concert would be the most effective way to reduce emissions caused by heating (e.g. works in conservation areas or implementing solutions for multi-tenure buildings).

However, the Scottish Government does not want to limit ambition, if there is an appetite to extend local energy planning beyond heating and energy efficiency. Some local authorities are already looking to use LHEES as the foundation of local energy planning with a wider scope, for example including transport or local power generation. The decision on whether to undertake this, alongside the potential statutory minimum requirement under LHEES, is one for local stakeholders to take.

## 2.7 Wider climate change ambitions

The Scottish Government has supported a number of local energy demonstrator projects. However, these have tended to be undertaken in isolation and did not take into account the wider energy systems in which the project was based.

## LOCAL ENERGY POLICY STATEMENT

In our journey to net zero, we need to take a more strategic overview, covering larger geographical areas, and involving partnership arrangements at the delivery level between local communities, energy network companies, local authorities, the public, and private sector.

LHEES and, where applicable, other local energy plans, will be a key building block to achieving that aim - and, strategically, individual local area plans should interact with other plans in neighbouring/ nearby areas. For example, this could mean encouraging greater collaboration between local communities, local authorities, and housing developers/builders to ensure new developments are created with long-term energy planning in mind that delivers for the net zero ambition.

### **We Will**

- To include a requirement in the next CARES contract, which starts on 1 April 2021, to establish a knowledge sharing portal, which will showcase relevant and current best practice.
- Develop, in partnership with others, an understanding of what local energy planning means, how it complements or augments LHEES, and produce guidance on local energy planning, as part of our suite of existing Good Practice Principles.
- Work in partnership with Local Authorities in the delivery of LHEES to ensure successful implementation.
- We will publish a Scottish Islands Energy Strategy document.

### CHAPTER 3: NETWORKS & INFRASTRUCTURE Flexible networks can help realise local solutions.

#### Principles

- **All activity should provide a high level of security and quality of supply to all, with an emphasis on considering existing energy infrastructure first.**
- **The design and operation of energy networks should consider the whole energy system while supporting local, regional and national solutions.**

**This chapter outlines the role that networks and the enabling infrastructure - electricity, heat, transport and digital will play in the energy transition and Scotland's journey to a net zero future, and what this means for those developing local energy systems projects.**

#### 3.1 More flexible than in the past

Scotland should have the capacity, the connections, the flexibility, and the resilience necessary to maintain secure, reliable supplies of energy to all of our homes, communities, and businesses.

Networks allow us to share energy – local networks allow us to share energy locally, and national networks allow us to share energy nationally. Our networks need to evolve in ways that reflect the balance of local and national energy, and the different sources and uses of energy that are envisaged for Scotland.



Our *Vision for Scotland's electricity and gas networks*<sup>12</sup>, published in March 2019, states that Scotland's gas and electricity networks delivered around half of all energy used in Scotland in 2017. These networks help to deliver affordable, reliable, and increasingly renewable energy across Scotland - and will be critical in achieving Scotland's net zero emissions target by 2045.

It is difficult to determine exactly what Scotland's future infrastructure needs and requirements will be. For example, the uptake of electric heating and transport on a large scale could place extra pressure on the electricity system, affecting the networks' ability to generate, store and use electricity to meet peak demand.

<sup>12</sup> <https://www.gov.scot/publications/vision-scotlands-electricity-gas-networks-2030/>

## LOCAL ENERGY POLICY STATEMENT

Scotland's Energy Strategy highlighted two possible future energy scenarios for Scotland.

<b>SCENARIO 1 AN ELECTRIC FUTURE</b> 	<b>SCENARIO 2 A HYDROGEN FUTURE</b> 
<p>By 2050 electricity generation accounts for around half of all final energy delivered. The sustained growth of renewable generation has helped ensure that we meet our climate change targets.</p> <p>Scottish electricity demand has increased by over 60% since 2015, and is increasingly supplying transport demand through battery powered electric cars and vans. Space and water heating is largely supplied, where practical, by highly efficient heat pumps, and via a new generation of smart storage heaters.</p> <p>Peak electricity demand has risen significantly, moderated to an extent by smart meters, responsive demand, new national and local market structures, and the changes in consumer behaviour that these have supported.</p> <p>Scotland retains its pumped storage stations, with new capacity added during the 2020s, and electrical energy storage is widely integrated across the whole system. For example, the EV fleet operates as a vast distributed energy store, capable of supporting local and national energy balancing.</p>	<p>By 2050, much of the demand previously met by natural gas has been converted to low carbon hydrogen. This is produced through strategically deployed electrolyzers and from SMR plants paired with CCS. The effective transition from natural gas to hydrogen – assisted by Government support and regulation, and by consumer behaviour – has helped us meet our climate change ambitions.</p> <p>CCS development during the 2020s has allowed the production of low carbon gas on a scale large enough to transform the energy system. Final energy demand has fallen, but natural gas demand has greatly increased – mainly to produce hydrogen, but also to power flexible electricity generation, with both processes utilising CCS.</p> <p>The flexibility offered by gas has also enabled the expansion of the gas network into new locations without compromising the sustainability of the energy system.</p> <p>Scotland has developed electrolysis facilities, meeting a proportion of the overall hydrogen supply. This helps balance renewable generation on the system, and creates demand which ensures that new gas generation with CCS can run in the most efficient way.</p> <p>New hydrogen transmission pipes link production facilities with the main demand centres, and new and repurposed pipelines take captured CO<sub>2</sub> to old North Sea gas fields for storage. The gas distribution network has been converted area by area, starting with the main cities.</p>

However, irrespective of the type of energy system which may emerge, there will need to be significant investment in the management, at all levels, of our networks (including enabling infrastructure).

There must also be scope for a flexible and open approach to decarbonisation: one that allows and enables local, regional and national solutions. The design and operation of our networks should be able to help deliver these solutions.

Our electricity networks today are based on a wholly national energy picture. There are limited opportunities for local communities to benefit from managing their local energy supply and demand in ways that limit the need for unnecessary network investment. However, the Scottish Government wants that relationship to change, and has established an Energy Networks Strategic Leadership Group. Its focus will include local energy needs



## **LOCAL ENERGY POLICY STATEMENT**

and issues, and ways to ensure that energy networks can understand and respond to these.

Electricity policy is largely reserved, which means that persuasion, partnership and collaboration are important parts of our approach. The Scottish Government will continue to work closely with the UK Government, Ofgem, National Grid and Scotland's grid owners to ensure that Scotland's priorities are understood and reflected in any decision making process.

This will include playing as full a part as possible with Scotland's energy network operators (both gas and electricity), consumer representatives and other stakeholders – in the discussions and debate which will inform the RII O-2<sup>13</sup> price control period. The Scottish Government will ensure that network companies reflect the ambitions and opportunities of local energy projects within their business plans.

### **3.2 Local and National**

Local energy will not replace the need to have a flourishing national energy sector – rather, it will enhance it by allowing us to promote and maximise an efficient system and use of the network, as well as value from Scotland's renewable resources. Both are critical to ensuring that Scotland can transition to a net zero future in a way that delivers secure, affordable, clean energy for Scotland.

This balancing and combination of local and national needs and capabilities will need to play a key role in providing both a secure supply and greater resilience across our networks from the bottom up. This will mean local and distributed energy, and demand-providing-services, will help ensure that the national network can operate securely and safely in an increasingly decarbonised system.

### **3.3 Must meet the needs of all consumers**

Any changes must be designed to meet the interests of all people and businesses. Above all, this means ensuring that decision-making starts from the impact of change to all consumers - in particular, reflecting the needs of vulnerable consumers across Scotland.

Today's energy networks provide a high level of security and quality of energy supply to all. Local energy projects can (and must) help retain and deliver these high levels, and have the potential to reduce the cost of doing so. For example, local generation or local energy balancing can defer the need for expensive reinforcement of the network while maintaining a high quality supply.

### **3.4 Integration with other Scottish Government policies/ programmes**

There are other related policies, providing enabling infrastructure, that are essential in our shift towards decentralised renewable generation.

---

<sup>13</sup> <https://www.ofgem.gov.uk/network-regulation-riio-model/network-price-controls-2021-riio-2>

## LOCAL ENERGY POLICY STATEMENT

The key areas are:

- The promotion of ultra-low emission vehicles (ULEVs) and the associated infrastructure that will be necessary to achieve our targets. We have invested over £30 million since 2011 to establish the comprehensive ChargePlace Scotland charging network, the largest in the UK outside London in support of our ambition to phase out the need for new petrol and diesel cars by 2032. Since 2017 we have provided financial support to install over 3500 domestic chargepoints at people's homes and almost 400 at workplaces to support business switching to ULEVs.
- The transition to renewable heat, and the extent to which the pathways for this transition will comprise low/ decarbonised gas or a major shift to electric heating – the latter in particular could have major implications for investment and growth across the lower voltage distribution networks.
- Our commitment to world-class, future-proof infrastructure that will deliver digital connectivity across the whole of Scotland.

### **ULEVs, Electric Vehicle charge points and energy system integration**

On 29 August 2019, a new Strategic Partnership was announced between Scottish Government, Transport Scotland, Scottish and Southern Electricity Networks, and SP Energy Networks. It will deliver and improve coordination between Electric Vehicle (EV) charging infrastructure and electricity networks in Scotland.

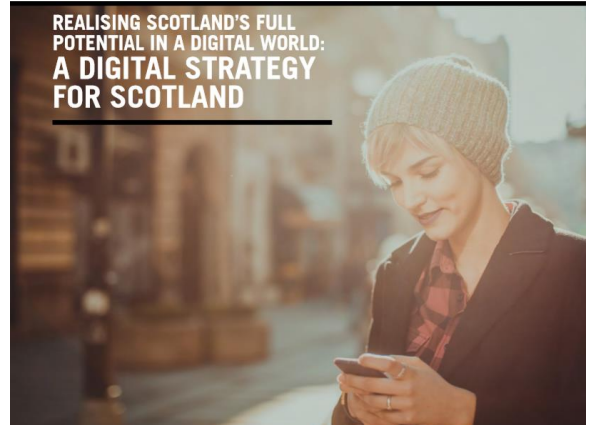
The £7.5 million partnership includes Scottish Government funding of £5 million and at least an additional £2.5 million from the network companies to deliver trial projects, aimed at demonstrating the benefits of coordinated planning in electricity and EV charging infrastructure.

Through the Strategic Partnership a demonstrator project will be undertaken across Lanarkshire in 2020/21 by SP Energy Networks. This aims to evaluate the efficiency of an electricity Distribution Network Operator-led model for delivery of public EV charging infrastructure at scale. Scottish and Southern Electricity Networks are also working with Transport Scotland to understand the impact of seasonal growth in EV tourism on the local electricity grid. Taking a 'use case' approach and focused on a number of tourist locations in the northern half of Scotland, this work is intended to enable flexible solutions to be identified that will be of benefit to consumers and minimise unnecessary investment in electricity network assets.

### **Realising Scotland's Full Potential in a Digital World: A digital strategy for Scotland**

*Realising Scotland's full potential in a Digital World*<sup>14</sup> sets out our plans for ensuring that digital is front and centre of future plans – in the way in which we deliver inclusive economic growth, reform our public services, and prepare our children for the workplace of the future.

It's a strategy for Scotland, not just the Scottish Government. It recognises the profound challenges that digital poses for the nature of work, for society and for both the world and domestic economies. It also accepts that no single organisation can hope to have the answers to these questions and, therefore, looks to create a culture and environment of partnership where collective action is taken to ensure that nobody is left behind and everyone remains safe, and secure and confident about the future.



<sup>14</sup> <https://www.gov.scot/publications/realising-scotlands-full-potential-digital-world-digital-strategy-scotland>

## LOCAL ENERGY POLICY STATEMENT

### 3.5 Using our powers

Where the Scottish Government has devolved powers, we will use these to maximise the impact of the opportunities around technological and digital innovation, and their application to energy. Adopting an integrated approach across different policy areas will help to ensure that the necessary enabling infrastructure is in place. Examples include:

- Our role in planning and consenting new energy infrastructure.
- Supporting the deployment of enabling infrastructure to increase the take-up of ULEVs.
- Our Digital Strategy, which aims to provide high quality connectivity across the whole of Scotland.
- Our *Vision for Scotland's electricity and gas networks*.
- Our CARES programme, which provides a wide-range of free advice and support, as well as funding to support solutions that both generate and use energy locally, often to overcome infrastructure constraints.

However while the Scottish Government will do all we can within our devolved powers, the UK Government needs to take action to ensure that the policy and regulatory environment keeps up with the pace of change required to cope with an energy system based on significant renewable generation. We will continue to engage with the UK Government on this matter.

#### **We Will**

- Ensure the Energy Networks Strategic Leadership Group, whose membership includes regulatory bodies, including DNOs, NG and Ofgem, considers local energy as part of its remit.
- Ensure provision within the next CARES contract period, to start from 1 April 2021, to support community groups in their dealings with DNOs and other infrastructure providers.

# CHAPTER 4: PATHWAY TO COMMERCIALISATION supporting local energy projects that provide a pathway to replication at scale.

### Principles

- **Prioritise projects that demonstrate a commercially viable and replicable opportunity, in line with the principle of inclusive growth.**
- **Prioritise and act upon “low regret” opportunities that support net zero emissions.**

**This chapter focuses on the importance of developing commercially and economically viable local energy projects while recognising key changes that the energy market will face in future years.**

## 4.1 It starts with research and innovation

Scotland has a global reputation for leading research and innovation in a host of different fields – including energy with Scotland already home to a number of world-class research, development and innovation centres which stretch across the country.

The Scottish Government remains committed to both supporting technical innovation, individuals and businesses throughout Scotland who are exploring innovative ways to deliver business models that decarbonise Scotland's energy system.

Research and innovation in this area, to prove and scale technologies will be a priority in helping to unlock potential commercial opportunities, both in Scotland and internationally.

## 4.2 Road to commercialisation

The Scottish Government has supported, and continues to support, a range of innovative demonstration and replication of projects through initiatives such as the Low Carbon Infrastructure Transition Programme (LCITP) and CARES.

Ensuring that we can learn from these successful projects and transfer this innovation to wider energy stakeholders will be the driver for encouraging replication at scale across the country. It is only through replication at scale that Scotland can achieve our net zero ambitions and deliver inclusive growth.

The ultimate aim is to de-risk the sector, making local energy projects more attractive investment propositions and thereby reducing the level, or need for public sector support.

We recognise however that there will still be a role for public sector funding, particularly as we seek to rebuild and recover from the pandemic. We need to prioritise and target funding towards those areas which are most in need and where we get maximum benefit and impact.

## LOCAL ENERGY POLICY STATEMENT

Going forward, we need to share the learnings from these early projects - building on the ones that were successful and sharing the lessons from those that failed. The consultation responses highlighted the need for the Scottish Government to provide a knowledge sharing portal for all stakeholders to access. We have made a commitment to do this in the Delivery Framework.

### 4.3 Public Sector Exemplars

The public sector has a role to catalyse and accelerate the transition – for example, by acting as an off-taker and anchor load - to a local energy project, or through embracing the challenge to decarbonise its buildings at a faster pace than the commercial and domestic sectors.

The Scottish Government recently announced its commitment to decarbonise its own estate by 2028. The approach taken to achieve this will have to deliver a set of economic solutions that demonstrate best value. In this way the public sector does not differ from the private sector.

### 4.4 Drivers for change - multi-faceted

Previous chapters highlighted the uncertainty of the final design of the future energy system. We are already seeing early signs of this, with changes happening across a number of areas, disrupting the status quo. The drivers for change are not down to a single issue - but are complex and involve a range of factors, such as:

- **Step change in heat decarbonisation requirements** – the Scottish Government will publish a Heat in Buildings Draft Strategy in December 2020, setting out our vision and programme for decarbonising heat in line with Scotland's net zero commitment. This will involve a significant scaling up of project activity over the coming decades, providing opportunities for communities across Scotland.
- **New business models** – the removal of UK government energy incentives and subsidies has, amongst others, contributed to a need to consider other options to obtain a revenue stream, such as flexibility services, energy co-operatives, peer-to-peer trading, multi-bundled services, aggregation, and virtual private wires.

These options currently are only attractive to or/ taken-up by a small energy consumer base but overtime are expected to become common place, offering more flexible choice for domestic and business users.

- **Digital technologies and techniques** – such as the capture and application of data-driven approaches to create or improve products and services. These are already transforming sectors across the economy.

This is happening in the energy sector too, reflected by the move from passive to more active energy systems and consumer interactions. For example, heating systems which respond to a user's location or remote commands, or smart devices

## LOCAL ENERGY POLICY STATEMENT

which can be activated when required and, therefore, prices are low. This concept is expanded on below.

- **Switch to EVs** - as ULEVs become increasingly prevalent within the market, this will impact on peak demand periods for electricity, creating both opportunities and pressures for local distribution networks as drivers look to connect and charge their vehicles. ULEVs and vehicle to grid may also be expected to provide flexibility benefits to the network.
- **Energy empowerment of local communities** - seeking more local benefit from local energy resources, which has included developing and owning generation or taking a financial or ownership stake in a local project.

Adding to this decarbonising energy usage, energy management, storage, supply has also been the norm for “off-grid” communities out of necessity. However, the Scottish Government are beginning to see a desire for this more widely in more communities across Scotland. This is encouraging, but it's important that we do not lose sight of the need to do so in a way that is inclusive; ensuring the most vulnerable are not worst off.

- **Remote and rural areas** – seeking to build on the pioneer work undertaken by a number of remote rural communities who have developed local energy solutions that meet their unique needs and circumstances.

### Case Study: Crossdykes Wind Farm – Community Shared Ownership

Muirhall Energy Ltd offered the local community an opportunity to acquire up to 10% equity shared ownership in a 46 MW wind farm. The offer was made to five local community council areas throughout Dumfries and Galloway.

The project is now consented and under construction, with completion programmed for Q1 2021, and community investment by Q3 2021.”

This is the first subsidy-free wind farm to be constructed, involving both community Shared Ownership and Community Benefit.

The Scottish Government, through CARES, awarded the community a grant to contribute towards costs for the necessary professional advice required to properly assess the opportunity.

This is an exciting opportunity for the community to receive substantial payments from Community Benefit funding, along with substantial income from Shared Ownership and, ultimately, to deliver long-term local ambitions and aspirations, that will be in place for future generations.

## 4.5 Digitalisation

There will be an increased role for digital technologies and techniques in the future energy sector. These will likely aid more intuitive systems that will have a powerful bearing on the

## LOCAL ENERGY POLICY STATEMENT

future energy sector. The growth of the digital economy may offer more flexible choice for domestic and business energy users alike.

There is already a growing demand for storage, technological innovation, and smarter networks. Other developments include cloud computing and blockchain, which will transform business models, markets and employment.

These will continue to change the ways in which energy is produced and consumed, and will be vital in realising energy system balancing in a decentralised system with a wider range and number of generators, and greater reliance on flexibility.

However, there are challenges associated with the continual digitalisation of the energy system for energy users, such as:

- Encouraging greater consumer engagement in the energy market
- Simplifying what can be a complicated process
- Digital exclusion

There are a number of issues surrounding the concept of smart energy systems. These include the current telecommunications network coverage difficulties experienced across many rural and remote areas throughout Scotland, as well as the lack of compliant metering technology available to energy users (who may not have yet received a smart meter due to either technical or behavioural reasons). It is important to ensure that no groups are left behind during this digital transition.

Through this policy statement and our *Energy Consumer Action Plan*<sup>15</sup>, the Scottish Government will continue to ensure the people of Scotland voices are heard by making use of our powers and, where powers are reserved, seeking to influence the UK government and appropriate regulatory bodies (such as Ofgem). For our approach to succeed, we need regulators and the UK Government to be responsive to Scotland's needs.

### 4.6 Financing the transition

The Scottish Government will continue to support and encourage projects that can demonstrate a clear pathway to solutions that can be self-sustaining and replicated across Scotland, both efficiently and at scale.

We recognise the challenge of wholesale replication. Successfully replicating place-based projects from remote, rural areas into more densely populated and urban areas (and vice versa) will require an in-depth understanding of the areas, resources, economy and strategic drivers.

---

<sup>15</sup> <https://www.gov.scot/publications/energy-consumer-action-plan-putting-consumers-heart-scotlands-energy-transition/>



## LOCAL ENERGY POLICY STATEMENT

The Scottish Government will continue to signal to the market, through policy and legislation where appropriate, the priority it gives to renewable and low carbon generation in order to attract resources and investment.

The Scottish Government will continue to support the acceleration of the shift to low carbon local energy solutions through existing support/ funding programmes, which include:

- **CARES** - a “one-stop-shop” providing advice and support, including financial support to community groups, third sector, public sector and rural SMEs seeking to develop renewable and low carbon projects.
- **Low Carbon Infrastructure Transition Programme (LCITP)** – providing support to make low carbon projects commercial investor ready.
- **Energy Investment Fund** - providing commercial investment for renewables and low carbon energy solutions.
- **Energy Efficiency Scotland** - which aims to make Scotland's buildings near-zero carbon.
- **Scottish National Investment Bank** - operational November 2020. As highlighted within the Scottish Government's Programme for Scotland 2019-2020, the Bank's primary mission will be the “transition to net zero”.

In this way, through clear stable policy and targeted support, new business models will emerge that can attract investment and be replicated both across Scotland and internationally. In order to achieve this, the Scottish Government will ensure that our support is flexible and can be adapted quickly to meet the changing environment.

Our support is augmented by that provided through our enterprise agencies and other national and UK bodies.

### 4.7 What can be delivered now?

The delivery of a greater number of local energy solutions is needed now. However, being an early adopter or a trailblazer can increase the level of risk. These risks can be minimised by considering the importance of place solutions that reflect local characteristics, and ensuring that lessons are learnt from these early projects.

There remains some fundamental questions to be answered about if and how the existing gas network can be decarbonised to support our net zero aim. However, as stated in Scotland's Energy Strategy, low carbon gas could either fully replace existing forms of gas, or be blended with existing gas to partially decarbonise the network.

The GB gas distribution networks are already investigating the performance of hydrogen and other low-carbon gasses across their infrastructure. This is the case in Scottish Gas Network's H100 project, which is looking to construct and demonstrate a 100% hydrogen

## LOCAL ENERGY POLICY STATEMENT

gas grid in Scotland. Furthermore, 15 biometane sites are already injecting low carbon gas into gas distribution networks.

The forthcoming Heat in Buildings Draft Strategy and Hydrogen Action Plan will set out more detail on the potential role of decarbonised gas in providing heat for Scotland's buildings and industry. As such, the Scottish Government is committed to encouraging prioritisation of "low regret" (low cost/ large benefits) local energy projects.

"Low regret" areas may have one or more of the following characteristics:

- Off-gas grid locations
- Adding new demand in areas with grid constraints
- Adding value to existing constrained generation assets
- Islands
- Remote and rural areas
- High-rise accommodation without gas

### **We Will**

- Continue to support the acceleration of the shift to low carbon, local energy solutions through various funding programmes, including:
  - CARES
  - LCITP
  - EIF
  - EES
  - SNIB
- Continue to work in partnership with Skills Development Scotland (SDS), and other relevant organisations, to ensure we have the right skills in the transition to net zero.
- Ensure SNIB prioritises investments which support Scotland's Net Zero Climate Change ambition.
- Ensure provision within the next CARES contract period, which starts on 1 April 2021, to prioritise shared-ownership models and promote the awareness of inclusive business models.

**CHAPTER 5: OPPORTUNITY** delivering sustainable, inclusive economic growth across Scotland and capitalising on the wider-benefits that local energy projects will bring.

### Principles

- **Local energy projects should seek to support the creation of jobs, including the development of the Scottish supply chain.**
- **Any changes to the energy system should ensure a just transition for Scotland's workforce.**

**This chapter highlights the potential economic opportunities - locally, nationally and globally - that a shift towards localised energy systems can deliver (as well as a reduction in carbon emissions).**

### 5.1 Inclusive growth is key to success

Inclusive growth<sup>16</sup> is a strategic priority for the Scottish Government. Put simply, this means: *growth that combines increased prosperity with greater equality, creates opportunities for all, and distributes the benefits of increased prosperity fairly.*

It is essential to create the right environment for more inclusive employment opportunities to flourish. Through supporting investment, innovation, internationalisation and fairer work, the Scottish Government is encouraging competitiveness and more responsible business behaviour.

Empowered people, acting within a system of fair competition, support inclusive and sustainable growth in our economy - enabling businesses to innovate and grow in response to consumer need. This approach is at the centre of the Scottish Government's economic green recovery plan post COVID-19.

Outlined below are some of the key areas where Scotland can potentially benefit from and, in some cases, lead the way.

### 5.2 Cementing Scotland's place globally

Scotland is recognised as a world-leader in decarbonisation and for our efforts in tackling climate change – therefore, Scotland is ideally placed to be a global frontrunner in the development of low carbon local energy projects.

A recent study, commissioned by Scottish Enterprise and carried out by Ricardo Energy & Environment (Smart Local Energy Systems International Research<sup>17</sup>), estimated that the local energy systems market in Scotland would be worth circa £637 million by 2030 – and almost £350 billion globally.

<sup>16</sup> <https://www.gov.scot/policies/economic-growth/inclusive-growth/>

<sup>17</sup> <http://www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=695>

## LOCAL ENERGY POLICY STATEMENT

The COVID-19 pandemic has seen many countries focusing on a “green recovery” and there may be opportunities for Scottish businesses to benefit from exporting their expertise and knowledge globally.

Conversely, with these other countries now giving serious consideration to local energy systems, it is important that Scotland acts now to consolidate our efforts at home – before then pushing internationally– to prevent our leading-edge being lost.

Within the same study mentioned above, it was suggested that the main types of services that could, potentially, be exported from Scotland broadly fit into three categories:

- Smart grid solutions
- Renewable power to hydrogen
- Renewable power to heat

And internationalisation does not solely mean the commercial export of goods, services and knowledge: there are potential opportunities for Scottish communities to benefit.

For example, knowledge-sharing between countries could be a key driver in the reduction of costs in the development and operation of local energy systems across Scotland. This is already happening, particularly in our island communities through projects such as,

- Smart Islands Energy System (SMILE)<sup>18</sup>
- Building Innovative Green Hydrogen Systems in Isolated Territories (BIG HIT)<sup>19</sup> projects.
- Concepts, Planning, Demonstration and Reputational of Local User-friendly Energy Communities project (CLUE)<sup>20</sup>

Our Enterprise Agencies (Highlands and Island Enterprise, Scottish Enterprise, and South of Scotland Enterprise) are leading the charge to ensure Scotland is front and centre, supporting internationalisation and creating opportunities to attract new investment, through initiatives such as Trade Envoys and Innovation and Investment Hubs.

### 5.3 Scotland's Enterprise Agencies

Our Enterprise Agencies, are key partners in supporting the roll out of local energy systems. A key priority is to ensure that the deployment of local energy systems in Scotland, and globally, not only benefits the energy systems themselves which helps to achieve climate change targets, but also has a significant positive impact on Scotland's businesses and economy.

A Local Energy Systems Programme Board with representatives of Scottish Government and the Enterprise Agencies was set-up in 2018. The aim of the board is to oversee the

---

<sup>18</sup> <https://www.h2020smile.eu/>

<sup>19</sup> <https://www.bighit.eu/about>

<sup>20</sup> <https://ore.catapult.org.uk/stories/clue/>

## LOCAL ENERGY POLICY STATEMENT

development of a programme of support for the emerging Scottish local energy systems sector.

One of the main activities within this programme is the establishment of a Local Energy System Scottish Industry Network (LESSIN) launched in December 2020. The LESSIN is the starting point for local energy systems industry engagement and a mechanism for the sector to collaborate, share knowledge and lessons learned via in-person meetings and online platforms.

It will provide initial support for companies to target and convert key market opportunities and connect companies to the wider local energy systems stakeholder community including public and third sector organisations seeking project partners.

It will also signpost to our Enterprise Agencies and partner products, funding opportunities and the Scottish innovation network as well as connecting companies to the local energy systems investor community. The coordinator of the LESSIN will report on progress to the Local Energy Systems Programme Board.

Beyond the establishment of the LESSIN, the Enterprise Agencies will seek to help facilitate key flagship local energy systems projects in Scotland, and also to enable export of Scottish products, services and expertise to target local energy systems markets around the world.

### **CASE STUDY: Clean Energy for EU Islands – Supporting a Collaborative Transition to Net Zero**

The Islands of Rum, Eigg, Muck, Canna, Foula and Fair Isle are all 'off-grid', not connected to the national electricity network. Highlands and Islands Enterprise supported these communities to successfully apply to become part of the EU Clean Islands Network. All islands participating have pledged to develop a Clean Energy Transition Agenda.

This support programme provides a platform for collaboration on an international scale, enabling strong linkages to be built across international islands in a similar situation. The communities will share knowledge, expertise and resource to develop one overarching off-grid Transition Agenda with specific recommendations for each island within this.

Although not a true island, the Off-Grid community of Knoydart will join them on this journey. The communities are also closely collaborating with the University of the Highlands and Islands, Shetland Islands Council, Highland Council and Highlands and Islands Enterprise on their journeys towards decarbonisation.



## LOCAL ENERGY POLICY STATEMENT

### 5.4 Scottish supply chains

Scottish businesses, including community-led organisations, have developed real strengths across the whole energy supply chain. To emphasise this diversity, the Smart Local Energy Systems International Research study identified over 250 companies in the local energy systems field, which can be categorised as follows:

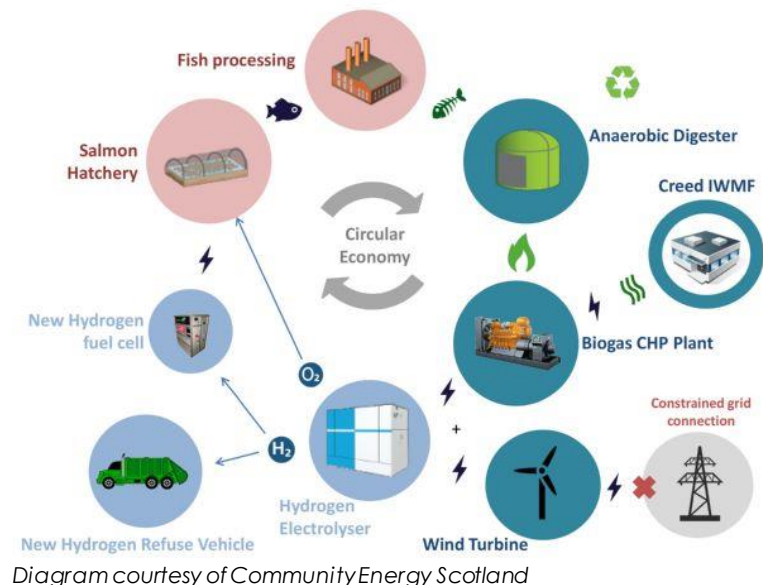
- 51% consultancy/desk-based design
- 32% project developers
- 69% technology/software developers
- 42% installers/providers to end customer
- 37% O&M

Chapter 4 refers to the impact which the digitalisation of the energy market will have on the way energy is generated and consumed. This also opens up huge potential for Scottish companies to offer a wide range of digital applications from software to data science to informatics – especially as many companies have never considered energy as a potential market place historically.

There is also growing interest (and opportunity) in adopting the circular economy approach in relation to energy – i.e. where the aim is to reduce unnecessary waste in the system, and across the wider Scottish economy. The circular economy approach is already having an effect in the manufacturing sector, with more thought given to the use and re-use of materials in manufacturing processes.

#### Case Study: Outer Hebrides Local Energy Hub (OHLEH)

The OHLEH project delivers renewable power, heat, and transport to the local community by integrating a variety of innovative technologies to improve the efficiency and output of the Anaerobic Digester site at Creed, and the salmon hatchery in Barvas – both on the Isle of Lewis. The project is focused on encouraging a circular economy, where fish waste from the hatchery is used to increase the biogas output of the anaerobic digester. The added value of this being:



- Increased heat and electricity output from the CHP, which allows for the production of hydrogen.
- The use of new and existing hydrogen-generation infrastructure to release additional renewable energy generation capacity.
- The use of hydrogen as transport fuel for the Council's refuse collection vehicle.

## LOCAL ENERGY POLICY STATEMENT

- The development of the local supply chains and skills required to generate, transport and use hydrogen and oxygen locally, with both gases supplied to the salmon hatchery to power their Hydrogen fuel cell.

Overall, there is potential to develop local supply chains across a range of emerging and growing markets for local energy projects and systems across all regions of Scotland – thereby, providing an opportunity for more balanced regional development within Scotland.

### 5.5 Community-led activity has a role

Scotland has a legacy of strong community engagement in local renewables generation, primarily through supporting community ownership. There continues to be a role for community-led activity in the future local energy landscape, such as:

- By developing, owning and operating local energy projects that create local solutions.
- By being meaningful partners in commercial renewable energy projects through shared ownership (and this opportunity is expected to continue for larger infrastructure projects).
- Whole system projects will need to engage, encourage participation, and inspire collective action within the project area - and communities can be key partners with unrivalled local reach.
- Energy innovation and market disruption could see new opportunities for more localised systems and trading, with local communities having the opportunity to deliver these models.

Overall, local energy projects have the potential to help local communities reduce carbon emissions, create local jobs, upskill local people, reduce energy costs, and allow greater investment in the local economy – while innovative business models, such as those involving peer-to-peer trading, may help to retain wealth within local communities.

The Scottish Government will ensure that our Enterprise Agencies and Local Energy Scotland will continue to work with businesses and communities to build the necessary capacity for all to capitalise on the benefits arising from the transition.

### 5.6 Equipping Scotland's workforce for the future

Scotland's Energy Strategy highlights the need to ensure there is a pipeline of suitably-skilled people to grasp the opportunities that our transition to a net zero economy (and decentralised energy market) will bring: from the manufacturing jobs which will produce the plant and equipment required to power Scottish communities and businesses, to the engineering roles required to install and maintain such equipment. However, this has to be the right kind of job creation: jobs which are sustainable and secure.

Scottish colleges and universities are world-renowned for producing talented graduates across a host of fields – including engineering, science, and digital technology. Indeed,

## LOCAL ENERGY POLICY STATEMENT

many further educational institutions across Scotland have already recognised the need to tailor courses they offer to ensure graduates are prepared for a future net zero economy by incorporating renewables/ renewable energy into, for example, environmental engineering courses.

The Scottish Government recognises that there are concerns over what impact our transition to a net zero economy will have on existing jobs – whether this be through increased automation or the move towards renewable energy away from fossil fuels.

This statement highlights our desire for a just transition: it is essential to ensure that this encompasses Scotland's workforce – particularly those who may be impacted by these changes – by providing opportunities for re-training or upskilling that are accessible by those experiencing socio-economic disadvantages.

The Scottish Government will continue to work collaboratively with organisations such as Skills Development Scotland, Energy Skills Partnership, Scottish businesses, and academic institutions to create modern apprenticeships that are fit-for-purpose and future-proof to enable Scotland to meet its ambition on climate change.

### **We Will**

- In partnership with our Enterprise Agencies, seek to maximise the opportunities for developing Scottish supply chains and creating jobs in the transition to net zero, part of which included the establishment of a Local Energy Systems Scottish Industry Network.
- Continue to build on our links with academia to ensure Scotland continues to show leadership in supporting research and innovation opportunities.
- Ensure there is a role for community-led activity in the future local energy landscape.



# LOCAL ENERGY SYSTEMS FRAMEWORK

## Principles

## People

## Places

## Network & Infrastructure

## Pathway to Commercialisation

## Opportunity

### YOU ASKED FOR

- Align with LHEES
- Encourage adoption
- Funding to align with Principles
- A voluntary public register showcasing best practice.

- A just transition
- Advice and support to:
  - Encourage community-led projects,
  - Engage with vulnerable groups
- A network of local energy contacts across Scotland.

- A knowledge sharing portal for local energy
- A framework or forum to facilitate joint working/ collaboration at a local level.
- Guidance on local energy planning to include
  - how to integrate local energy plans into LHEES,
  - benefits of local energy plans.
  - Role of LAS on delivering LHEES.

- Engagement with regulatory bodies: DNOs, NG, Ofgem to support industry particularly on grid issues
- Additional support for community groups to engage with DNOs.

- Access to finance at all scales
- Investment in future skills development
- SNIB to have a key role in facilitating low carbon projects
- Prioritisation of locally-owned and shared ownership opportunities
- Promotion of inclusive business models.

- Funding for:
  - Creating a pipeline of projects, supporting Scotland's supply chain
  - testing and deployment of innovation technologies
- Enhanced links with academia
- SG and UKG energy policy to be aligned where practicable.

### CROSS CUTTING STAKEHOLDER ENGAGEMENT

- Clarity regarding specific roles and responsibilities for facilitating joint working between different stakeholders, including who is responsible for facilitating joint working between different stakeholders.

## WE WILL/WE HAVE

### We will

- Include in the next CARES contract a requirement to establish a register.
- Ensure the Principles are aligned with LHEES.

### We will

- Review JTC recommendations and principles, and apply as necessary.
- Include in the next CARES contract:
  - a tailored package of support for community-led projects.
  - Identify and support disengaged and vulnerable groups.

### We will

- Collaborate with our Enterprise Agencies, to establish a knowledge sharing portal.
- Provide guidance on local energy plans.
- Work in partnership with LAs in the delivery of LHEES.
- Publish a Scottish Islands Energy Strategy document.

### We will

- Ensure the Energy Networks Strategic Leadership Group, considers local energy as part of its remit.
- Include in the next CARES contact support for community groups to engage with DNOs and other infrastructure providers.

### We will

- Continue to support local energy solutions through various funding programmes,
- Continue to work in partnership with Skills Development Scotland (SDS),
- Ensure SNIB prioritises investments which support Scotland's Net Zero Climate Change ambition.
- Include in the next CARES support to prioritise shared-ownership models and promotion of inclusive business models.

### We will

- Work in partnership with our Enterprise Agencies to:
  - maximise the opportunities for developing Scottish supply chains.
  - Support them to establish a Scottish Local Energy Systems Industry Forum.
- Continue to build links with academia.
- Ensure there is a role for community-led activity in the future local energy landscape.

## CROSS-CUTTING STAKEHOLDER ENGAGEMENT

**We will**, in discussion with stakeholders, set out a framework outlining roles and responsibilities.

## DELIVERY TIMELINE 2020-2023

**We will** review the statement and delivery framework end 2023



Scottish Government  
Riaghaltas na h-Alba  
gov.scot

© Crown copyright 2020

**OGL**

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit [nationalarchives.gov.uk/doc/open-government-licence/version/3](https://nationalarchives.gov.uk/doc/open-government-licence/version/3) or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk).

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available at [www.gov.scot](http://www.gov.scot)

Any enquiries regarding this publication should be sent to us at

The Scottish Government  
St Andrew's House  
Edinburgh  
EH1 3DG

ISBN: 978-1-80004-006-9 (web only)

Published by The Scottish Government, January 2021

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA  
PPDAS756886 (01/21)

W W W . g o v . s c o t