



Department for the  
**Economy**  
[www.economy-ni.gov.uk](http://www.economy-ni.gov.uk)

# ENERGY STRATEGY - PATH TO NET ZERO ENERGY

## 2022 ACTION PLAN REPORT



**FEBRUARY 2023**

## Introduction

The Northern Ireland Energy Strategy – The Path to Net Zero Energy<sup>1</sup> was published in December 2021 after being agreed by the Northern Ireland Executive. It outlines a roadmap to 2030 aiming to deliver a 56% reduction in our energy-related emissions, on the pathway to deliver the 2050 vision of net zero carbon and affordable energy.

The Energy Strategy Action plan, which was published in January 2022, outlined the key actions that would be taken forward in 2022 by central government and partners as part of the delivery of the new Energy Strategy.

The actions for 2022 concentrated on supporting the delivery of the five key principles of the Energy Strategy:

- Placing the consumer at the heart of the energy future;
- Growing the green economy;
- Doing more with less (energy efficiency);
- Replacing fossil fuels with renewable energy (ultimately ending the importing of fossil fuels into Northern Ireland); and
- Creating a flexible, resilient and integrated energy system to deliver our power, heat and transport needs.

This report outlines the progress made against each of the Action Points over the last year.

---

1 <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Energy-Strategy-for-Northern-Ireland-path-to-net-zero.pdf>

## Context

The energy landscape has changed dramatically over the last 12 months turning the focus even more towards energy security and affordability. Shifting away from fossil fuels, through the reduction of energy demand and by scaling up renewable energy production, are now more than ever crucial solutions to both the energy cost crisis and achieving net zero.

### Climate Emergency

In June 2022 the Climate Change Act (Northern Ireland) 2022<sup>2</sup> obtained Royal Assent. It sets targets for the reduction of greenhouse gas emissions; provides for a system of carbon budgeting; and confers powers to impose climate change reporting duties on public bodies. The Act established that the Department for the Economy must ensure at least 80% electricity consumption from renewable sources by 2030, which is a significant departure from the 70% target established in the Energy Strategy.

### Energy Crisis

The current energy crisis is unprecedented. Wholesale gas prices have significantly increased over the last year. At the time of publishing the Action Plan in January 2022, the wholesale price of gas was £158.11/therm, however, at the time of writing this report, the wholesale gas price was £351.63/therm.<sup>3</sup>

Global events including the conflict in Ukraine and supply chain issues following the Covid-19 pandemic have exacerbated the situation with both a squeeze on supply and increasing demand, affecting the global price for wholesale gas, oil and coal.

The Consumer Council's Home Energy Index tracks changes in household gas, electricity and home heating oil (HHO) prices in Northern Ireland. A composite index is calculated, meaning that all three energy prices are combined to create one overarching figure which uses appropriate weighting to reflect usage and market share. At the end of December 2021, the composite HEI was 153.64<sup>4</sup>, this compares to the most recent figure of 297.92<sup>5</sup> by the end of October 2022.

### Fuel Poverty

The Department for the Economy published statistics in March 2022<sup>6</sup> that indicated households in Northern Ireland directed a greater share - 16% of their non-discretionary expenditure to energy compared to 10% for the UK as a whole and are therefore more vulnerable, compared to other regions of the UK, to increased energy prices and energy expenditure. With the increase in energy prices since then, this 16% figure will have increased further.

<sup>2</sup> [Climate Change Act \(Northern Ireland\) 2022 \(legislation.gov.uk\)](#)

<sup>3</sup> [Wholesale market indicators | Ofgem](#)

<sup>4</sup> [Home Energy Index Decembr 2021.PDF \(consumercouncil.org.uk\)](#)

<sup>5</sup> [Home Energy Index October 2022.PDF \(consumercouncil.org.uk\)](#)

<sup>6</sup> [Northern Ireland household energy expenditure: income differences and non-discretionary impacts \(economy-ni.gov.uk\)](#)

## Security of Supply

Global events in 2022 have also led to unprecedented changes in global energy markets and heightened public concern regarding security of supply. The Department for the Economy has been working closely with the energy industry to ensure that Northern Ireland continues to have a secure and diverse supply of energy. In the short / medium term, it is anticipated that we will face increasing challenges as older fossil fuel generation is scaled down and new low carbon and renewable generation is increased.

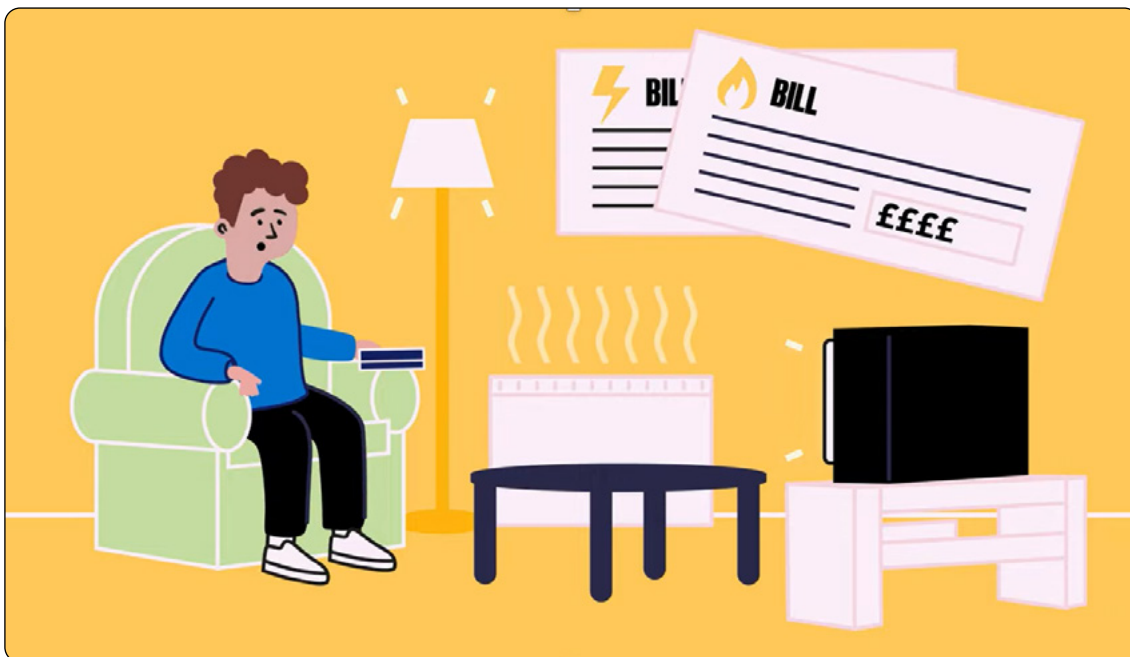
*The events of the past 12 months have reaffirmed that the Energy Strategy goal to deliver self-sufficiency in affordable renewable energy is the right path for the people of Northern Ireland. The report below illustrates that significant delivery progress has been made across all the Strategy themes.*



## Placing Consumers at the Heart of the Energy Future

The Energy Strategy notes: “Achieving our vision will require substantial changes to our energy system, economy and society. This is not something that can be achieved by government and the energy industry alone. We need every person and business to play their role and we are committed to continuing our collaborative approach.” The importance of providing information and raising awareness for consumers on energy decarbonisation was recognised in the Energy Strategy.

The Department for the Economy, in partnership with the Consumer Council and the Utility Regulator, are currently delivering a winter energy campaign to provide consumers with information and advice on how to minimise costs at a time when our energy use naturally increases. Through the campaign, information and advice will be provided on a range of issues, including energy efficiency in the home, understanding your energy bills and usage, getting the best deal from your provider, and what support is available to help those in need.



A series of energy animations<sup>7</sup> have been developed to help explain the main issues and the Consumer Council are liaising with key stakeholders who work directly with vulnerable consumers. A number of energy toolkits<sup>8</sup> have also been developed, detailing bespoke advice for different types of energy consumer.

7 [www.consumerCouncil.org.uk/energyvideos](http://www.consumerCouncil.org.uk/energyvideos)

8 [Consumers are encouraged to consider switching to save money on energy bills | Consumer Council](#)

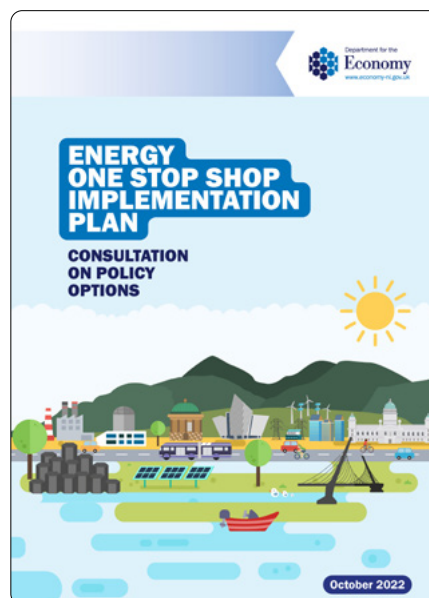


**Action Point 1: Produce a detailed plan with timescales for establishment of a one stop shop for energy information, advice and support scheme delivery**

The Department published the Consultation on Policy Options for the Energy One Stop Shop Implementation Plan on 27 October. The Plan was informed by evidence, best practice and views provided by a wide range of stakeholders including the Utility Regulator, consumer representatives, energy industry and organisations managing one stop services in Northern Ireland, Republic of Ireland and Scotland.

The Energy One Stop Shop aims to be a single point of contact where consumers, communities and businesses can receive information, advice and support about energy efficiency, power, heat and transport.

The consultation proposes launching a pilot Energy One Stop Shop service to deliver core energy information, advice and support for consumers who wish to reduce and decarbonise their energy use while giving feedback on different delivery mechanisms for the future expansion of services.



**Action Point 2: Establish a cross-departmental steering group, chaired by the Department for Communities to develop and deliver actions to reduce fuel poverty**

The Department for Communities did not establish this steering group, rather it commenced work on developing a long-term Fuel Poverty Strategy and Action Plan. It intends to establish a cross sectoral group in early 2023 to explore how best to take forward a resilient long-term approach to address fuel poverty. Over the past year, the Department for the Communities has delivered a range of targeted interventions to address the 'cost of living crisis' including the Emergency Fuel Payment Scheme and made other specific energy support payments. This work included extensive regular engagement with a broad range of partners across Government and other stakeholders including the Utilities Regulator, Consumer Council and Third Sector.

The Department for the Communities also convened the Emergency Leadership Group to discuss key issues and priorities for responding to the current cost of living crisis including the impacts of fuel poverty. This group brought together regional and local grass roots community sector leaders to inform and shape the policy response from the Department to the cost-of-living crisis and provided important lived experience in relation to cost of living increases and the impact on families and communities.



**Action Point 3: Issue a call for evidence on protection for consumers during energy decarbonisation**

The Utility Regulator and Consumer Council collaborated to produce a Call for Evidence<sup>9</sup> to explore the changes needed to develop a more agile framework for protecting consumers during energy decarbonisation. It includes research on lessons learned from other jurisdictions on the principles, goals, and dimensions of energy consumer protection during energy decarbonisation.



9 [Protecting consumers during the energy transition to net zero: Call for evidence | Utility Regulator \(ureg.gov.uk\)](https://www.ureg.gov.uk/protecting-consumers-during-the-energy-transition-to-net-zero-call-for-evidence)



## Growing the Green Economy

The Energy Strategy sets out a vision where we create new jobs and grow a skills base for the net zero carbon economy through innovation, support and focusing on our competitive strengths. This is a fundamental aspect of the delivery of the 10X Economy<sup>10</sup>. As recent global events have illustrated, the issue of securing an indigenous supply of zero carbon energy is more critical than ever.

### **Action Point 4: Deliver £10m of funding through a new Green Innovation Challenge Fund**

In March 2022, the £10m Green Innovation Challenge Fund was launched to support energy decarbonisation research and innovation, administered through the Centre for Advanced Sustainable Energy (CASE) at QUB in Belfast.

To date, £4.5m has been allocated, with additional money being made available during 2023, to local companies' development of zero carbon energy solutions, such as the development of a market ready battery suitable for domestic energy storage; the integrated capture and conversion of carbon dioxide to Emission Free Fuels; and the design of systems for electrochemical compression of hydrogen.

### **Action Point 5: Carry out an Energy Skills Audit for energy decarbonisation**

The Energy Skills audit has not been completed but nonetheless remains a priority. It is now anticipated that it will be completed in the first half of 2023.

### **Action Point 6: Develop a business case to deliver a Hydrogen Centre of Excellence to be located at the Advanced Manufacturing Innovation Centre (AMIC)**

The proposal to establish the Hydrogen Centre of Excellence at AMIC has expanded to include the diverse expertise in the collaborative AMIC network. It now includes all relevant facilities in the Mid & East Antrim Borough Council area around Ballymena. The Outline Business Case, overseen by AMIC, has been completed. It is intended that delivery of the centre will commence in 2023.





## Do More With Less (Energy Efficiency)

The 'do more with less' theme of the Energy Strategy sets out the vision to reduce energy demand. Reducing the overall amount of energy that we consume will play a significant role in reducing emissions.

### Action Point 7: Launch a domestic energy efficiency scheme

Unfortunately, following significant engagement with stakeholders, it emerged that the delivery of a pilot domestic energy efficiency scheme would not be feasible in 2022. However, it also became clear that more urgent action at a larger scale is needed across Northern Ireland.

Officials are now progressing the development of a multi-year Energy Efficiency Intervention Programme that would scale up quickly to deliver the volume of high-quality retrofits required to both meet our net zero commitments and tackle the cost-of-living crisis. We are urgently determining the appropriate levels of support and the funding required.

### Action Point 8: Launch a non-domestic energy efficiency scheme

A new energy efficiency support programme for businesses has not been launched in 2022.

During 2022, there has been an ongoing period of evidence gathering and stakeholder engagement through surveys, workshops, and discussions with other jurisdictions to ensure a robust evidence base for scheme design.

The new scheme will be launched in 2023 providing financial support for eligible businesses, and will be accompanied by live support including advice and technical consultancy relating to energy efficiency and decarbonization.

### Action Point 9: Deliver £10m of funding for central government Invest to Save projects

Building on the successful initial delivery of 'energy invest to save' funding for central government in 2021, in February 2022, the Department for the Economy issued a call for funding applications from across central government including Arm's Length Bodies.

Following the development of a multi-year project pipeline, the Department for the Economy was able to secure a total of £20m of funding for projects in 2022. The investment surpassed the targeted £10m and was delivered across 51 energy projects in 18 separate government organisations. These projects, coupled with those delivered in 2021, have totalled £28m in focused investment leading to savings of close to £4m annually. This is an excellent example of government leading by example.



### Action Point 10: Establish minimum energy efficiency standards in the domestic private rented sector

The Private Tenancies Bill<sup>11</sup>, which received Royal Assent on 27 April 2022, gives the Department for Communities a power to make regulations concerning the energy efficiency (including minimum energy efficiency standards) of dwelling houses let under a private tenancy. Before making regulations, the Department must consult widely and this process will begin in 2023. This is part of a set of measures to make the Private Rented Sector more sustainable and affordable.

### Action Point 11: Improve the energy efficiency of new buildings

Action 11 forms part of a provisional programme to improve the energy efficiency standards of new buildings through phased amendments to building regulations and guidance. Revised Technical Booklet guides to Part F (Conservation of fuel and power)<sup>12</sup> of the building regulations were published on 25 March 2022 and came into effect for applications lodged from 30 June 2022. The new guidance uplifts the fabric and emissions performance requirements for all new buildings, such that most new homes are likely to include on-site renewables as part of their construction whilst maintaining or improving previous fabric standards.



The Department of Finance is conducting statutory consultations on papers with its building regulations advisory committee on potential next steps and on longer term issues such as assessment metrics and embodied carbon. Drafting is progressing, with a view to publication of the phase 2 discussion document referenced in the programme in the coming months, subject to appropriate agreements. This will help advise industry of expectations and gain evidence on a range of issues where industry and cross governmental input is important.

11 [Private Tenancies Act \(Northern Ireland\) 2022 \(legislation.gov.uk\)](https://legislation.gov.uk)

12 [TB Part F1 2022 On-Line Publication.pdf \(finance-ni.gov.uk\)](https://finance-ni.gov.uk)



## Replace Fossil Fuels with Renewable Energy

### **Action Point 12: Consult on a renewable electricity support scheme in 2022 for delivery in 2023**

The Department for the Economy commissioned consultancy support from Cornwall Insight to provide specialist energy market and technical analysis of potential design considerations for an incentive scheme for renewable electricity generation in Northern Ireland. This work contributed to the consultation on a Renewable Electricity Support Scheme for Northern Ireland, as committed to in the Energy Strategy Action Plan. The consultation was opened on 2nd February 2023 and will remain open for 12 weeks.

The consultation responses will inform the design of a NI Renewable Electricity Support Scheme with the intention to deliver by end of 2023.

### **Action Point 13: Review permitted development legislation for low carbon heat installations to ensure it is up to date and fit for purpose**

The review of permitted development has now been completed and a consultation paper<sup>13</sup> was issued on 27 October 2022 seeking views on proposals to revise permitted development rights for the installation of domestic microgeneration equipment (heat pumps). The consultation document sets out the Department for Infrastructure's proposals for changes to the nature and scale of permitted development rights for the installation, alteration, or replacement of heat pumps (air source and ground or water) to align with modern standards and requirements.

Responses to the consultation will be considered with a view to making any legislative change in relation to heat pumps as early as possible in 2023.

### **Action Point 14: Develop an action plan to deliver 1GW of offshore wind from 2030**

In 2022, the Department for the Economy established a Steering Group to support the development of a new Offshore Renewable Energy Action Plan for Northern Ireland. It also established four expert stakeholder working groups. These groups identified the key barriers and solutions to delivering on our offshore wind ambitions and provided input into the actions necessary for successful, and where possible, accelerated delivery. We also established an Offshore Renewable Energy Forum to engage with and capture the views of key stakeholders.

A Statement of Intent with the Crown Estate (TCE), towards offshore wind seabed leasing for Northern Ireland was published on 16th January 2023<sup>14</sup>.

<sup>13</sup> [Consultation on changes to planning permitted development rights to protect the environment and help address climate change | Department for Infrastructure \(infrastructure-ni.gov.uk\)](#)

<sup>14</sup> [Department for the Economy and The Crown Estate publish a Statement of Intent | Department for the Economy \(economy-ni.gov.uk\)](#)



The draft Offshore Renewable Energy Action Plan for Northern Ireland was completed, and a public consultation was published on 21 December 2022<sup>15</sup>. The consultation will close on 16 March 2023. Following the closure of the Consultation and consideration of responses, the Plan will be finalised.

**Action Point 15: Develop and commence delivery of low carbon heat demonstrator projects**

Nine projects commenced in 2022 which are showcasing a range of low carbon heat technologies including: Air Source Heat Pumps installed in domestic and non-domestic buildings; Ground Source Heat Pumps providing communal space heating and hot water for social housing providers; a geothermal project on a university campus to provide heating and cooling across several buildings on the one site; a hydrogen ready gas hybrid heat pump capable of burning natural gas mixed with up to 20% hydrogen and a gas boiler fuelled with renewable BioLPG.



Air Source Heat Pump installation at Arbour Housing Association site in Banbridge.

The system performance of technologies is being monitored and will provide an evidence base for policy development. Case study partners have agreed to share system performance and efficiency data, which we intend to publish once sufficient information is available.



Solar Assisted Heat Pump installation in an older building on the Knockbracken Healthcare Park.



**Action Point 16: Develop and commence delivery of a geothermal demonstrator project**

During 2022 the Department for the Economy created a business case, carried out premarket engagement and is currently in the procurement phase of feasibility studies and pre-drill activities for one deep geothermal project and one shallow geothermal project. The delivery of these projects will continue in 2023.

These projects will help inform future policy in relation to geothermal energy and help develop the appropriate frameworks for geothermal heat. The Department for the Economy will commence public engagement to improve public understanding of the technology. It is expected that the projects will also encourage private sector investment in geothermal technologies to establish them as part of a wider roll out of heat networks.

**Action Point 17: Establish a cross-departmental working group on biomethane production**

The Department of Agriculture, Environment and Rural Affairs (DAERA) established the Inter-Departmental Biomethane Working Group (IDBG). A core focus of this group is not just expediting the production of biomethane for gas grid injection, but also off-grid applications including as fuel for heavy vehicles such as HGVs. The IDBG meets monthly to progress the delivery of sustainable biomethane production in Northern Ireland.



Tully Biogas, Ballymena

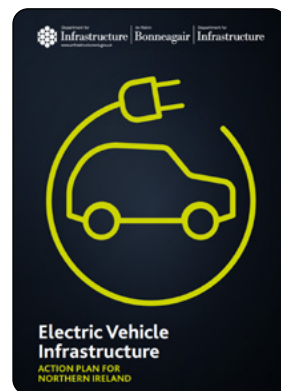


Groot Zevert Vergisting (Netherlands)

**Action Point 18: Publish an EV Infrastructure action plan**

The Department for Infrastructure established an EV Infrastructure Taskforce charged with developing an EV Infrastructure Action Plan for publication by the autumn of 2022.

The Taskforce drew its membership from both public sector and private sector organisations with an interest in electric vehicles related matters. It included representatives from the Department for the Economy, the Utility Regulator, NIE Networks, the Electric Vehicle Association Northern Ireland, the Consumer Council, CBI (Belfast) and ESB (provider of the E-Car network of charge points in Northern Ireland).



The Taskforce developed the Action Plan which was approved for publication<sup>16</sup>, by the Infrastructure Minister, in October 2022.

16 [Electric Vehicle Infrastructure - Action Plan for Northern Ireland \(infrastructure-ni.gov.uk\)](https://infrastructure-ni.gov.uk)



## Create a Flexible, Resilient & Integrated Energy System

The future of energy will be smarter and will integrate demand and supply more effectively. Innovative and flexible technologies will enable greater amounts of low-carbon electricity to provide much more of our energy needs in the next decade and beyond. The coming years are crucial for developing and implementing these transformational changes and laying the foundation for a fully net zero energy system. Our shift towards decentralised energy also means new opportunities for consumers and communities, an increased emphasis on local energy solutions and new forms of engagement.

### Action Point 19: Prepare a Northern Ireland Smart Systems and Flexibility Plan

The Smart Systems and Flexibility Plan will set out a roadmap of key actions and deliverables up to 2030 and beyond, to achieve our vision of a smart and flexible system which can accommodate increasingly high levels of renewable (non-dispatchable) energy. It is not yet completed and is expected to be published in early 2023 upon completion of current round of stakeholder engagement.

### Action Point 20: Carry out a cost benefit analysis of electricity and gas smart meters and other technologies in order to access half-hourly and daily consumption information

The delivery of this action is a key milestone in the energy decarbonisation journey as improved data and data management will form the gateway to improved energy efficiency, new products and further deployment of renewable technologies.

The cost benefit analysis was completed in December and outlines the key benefits to consumers of upgrading to a digitised energy system, the role of timely data and therefore more efficient markets, whilst capturing the potential set-up and running costs for the design and delivery of new options. It is expected that work will commence urgently on the roll-out of smart metering subject to the necessary legislation.



## Delivering the Strategy

### **Action Point 21: Review legislation and regulation requirements in the context of energy decarbonisation goals**

Engagement between Department for the Economy and Utility Regulator officials continued during 2022 across a broad range of policy issues including grid connections, scoping issues relating to offshore renewables and development of the Smart Systems and Flexibility Plan plus a range of consumer protection issues.

### **Action Point 22: Build further evidence and understanding on the linkages across our whole energy system**

The Energy Strategy contained a commitment to produce a comprehensive energy evidence programme to inform policy decisions. The programme is gathering and utilising energy information for the purposes of policy development and delivery.

The Department for the Economy commissioned a variety of research that is providing focused information on energy policy issues. In addition to these Department-led projects, energy officials have been part of UK-level energy related research projects, including work looking at opportunity areas for district heating<sup>17</sup>, key resource areas for offshore wind<sup>18</sup> and future offshore wind scenarios. Other energy related research projects have also been carried out by Arm's Length Bodies across government, such as Invest NI, the Utility Regulator and the Consumer Council. In addition to commissioning research, the Department also accepted proposals and provided grant funding to academics across Northern Ireland, Great Britain and the Republic of Ireland, to carry out research in specific areas for the Northern Ireland energy environment.

<sup>17</sup> [Opportunity areas for district heating networks in the UK: second National Comprehensive Assessment - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

<sup>18</sup> [Microsoft PowerPoint - Broad Horizons - V7 Final.pptx \(thecrownestate.co.uk\)](https://thecrownestate.co.uk)