Energy Strategy Call for Evidence

Response Template

How to Respond

This template replicates the questions asked in the Call for Evidence found at: https://www.economy-ni.gov.uk/energy-strategy-call-for-evidence

It is recommended that you should read the full consultation document before completing your response. Please note that the text boxes used throughout this template can be expanded to accommodate your response – there is no character limit.

For further information on how we handle your personal data please read our Privacy Notice

Early responses are encouraged but all responses should arrive no later than **5pm on 20 March 2020.**

Please send your response to:

energystrategy@economy-ni.gov.uk

Or alternatively by post to:

Energy Strategy
Department for the Economy
Netherleigh
Massey Avenue
Belfast
BT4 2JP

Quote the reference "**Energy Strategy Call for Evidence 2019**"

1. General Information

1. **Name (required)**

[redacted]

2. **Are you responding:**

   ☐ **as an individual (please complete 3 to 5 below)**

   ☒ **on behalf of an organisation / company (please complete 6 to 8 below)**

If you are responding as an individual:

3. **E-mail address**

4. **Address**

5. **If you are responding as an individual, please read the Privacy Notice and tick the statement below as applicable.**

   ☐ **All responses will be published on the Department for the Economy website following completion of the Call for Evidence process. Please tick if you are content for your name to be published alongside your response.**

If you are responding on behalf of an organisation / company:

6. **Organisation / Company**

Causeway Coast and Glens Borough Council

7. **Position within Company / Organisation**

[redacted]

8. **Contact details**

   a. **E-mail address**

[redacted]

   b. **Address**

[redacted] [redacted] [redacted] [redacted]

2. Energy in Northern Ireland

Q1. What lessons can we learn from elsewhere in addressing energy within an overarching climate action framework?

Q2. What are the key considerations for decarbonising Northern Ireland's energy sector given existing linkages to other jurisdictions?

Q3. To what extent should Northern Ireland implement the key energy-related recommendations from the CCC 'Reducing Emissions in Northern Ireland' report?

Q4. Do you agree with the 30-year timeframe? If not, please state your preferred approach and reasons.

Q1. Causeway Coast and Glens Borough Council believes valuable lessons can be learned from the Climate Action Plan (CAP) in the Republic of Ireland, as this is a comprehensive and cross-government strategy document.

Q2. The priority for decarbonisation of energy should be putting the consumer at the heart of any policy decisions. Building regulations need to be revised to move away from oil and gas to low carbon technologies. Infrastructure across Northern Ireland needs to be improved to facilitate different energy systems and with the move towards electric vehicles, additional charging points need to be installed. Finally, smart metering needs to be rolled out to every building and data gathered from this securely processed.

Q3. Causeway Coast and Glens Borough Council believes all the key energy-related recommendations should be implemented.

Q4. Causeway Coast and Glens Borough Council supports the 30-year timeframe but would encourage energy to be at net zero by 2045.

3. The Energy Transition in Northern Ireland

Q5. What are the unique characteristics of Northern Ireland that need to be considered in a net zero carbon energy transition?

Q6. Is your organisation undertaking or planning to undertake projects to support the energy transition? If so, please provide further details.

Q5. Northern Ireland has high levels of energy imports (gas) and lack of security with own energy supply. Northern Ireland is unique in that it has over 23K decentralised generators with three times network / Km connected. However, there is a load and generation imbalance between East & West and little/ to no smart metering. Additionally, there is very little network automation and limited interconnection. If we look at the challenges Northern Ireland faces compared with Mainland Britain, the reliance on agricultural sector within Northern Ireland, we produce three times more emissions than the rest of the UK. The agricultural sector will require additional support and incentives to encourage a change of approach to farming. The regulatory model in Northern Ireland is different from UK / ROI. Currently Northern Ireland has a high reliance on heating oil and the gas network.

Q6. Causeway Coast and Glens Borough Council is currently supporting a number of renewable energy proposals e.g. Girona Project; Coleraine Smart Energy Demonstrator Project; Smart Grid proposals; and has started engaging with local businesses to assess their energy needs, to ascertain what support Council can provide.

4. Consumers

Q7. How should we ensure that energy remains affordable for domestic consumers? What approach should be taken to eradicate fuel poverty?

Q8. What steps could be taken to improve the relative cost competitiveness of larger non-domestic consumers?

Q9. Is a strategic position of "enable and protect" the correct policy stance?

a) What policies or schemes are needed to enable active consumers?
b) What policies or schemes are needed to protect vulnerable consumers?

Q10. What types of advice and information are required by all consumers and what are the best mechanisms for facilitating this?

Q11. Are there examples of successful citizen energy projects in Northern Ireland and elsewhere that have delivered improved energy efficiency and/or clean energy to local communities?

Q12. What opportunities are there in both urban and rural areas for citizen energy communities in Northern Ireland? What role could government have in facilitating these?

Q13. What evidence can you provide that identifies the challenges and opportunities for NI energy consumers in decarbonising energy?

Q7. UK Government energy efficiency targets were intended to move the Fuel Poverty Energy Efficiency Rating (FPEER) Band G in Households to band E by 2020, band D by 2025 and band C by 2030. The 2025 targets could possibly be met by installing solar panels Intelligent metering & electric storage at a minimum in Band G social housing. To help eradicate fuel poverty, regulations and planning of all new builds should include Solar & Storage / and or Heat Pump installations with minimum requirements on fabric insulation and heat retention. Individuals should be incentivised to their own electricity through low carbon technologies, including storage of additional energy. Battery storage can be used to balance the grid during periods of high demand.

Q8. Larger non-domestic consumers should consider the possibility of installing mirco-grids, similar to the Girona project that is currently being supported by Causeway Coast and Glens Borough Council. Other alternatives include MIC Charging consultation on changes to capacity charging arrangements – contracted capacity as well as Peak shaving through aggregation contracts etc.

Q9. Causeway Coast and Glens would be in support of the ‘enable and protect’ stance by the government.

a) To enable consumers, there needs to be regulatory standards within the supply chain which incorporate decarbonisation systems/ technologies. The system will need to be digitised to incorporate smart metering and real time data analysis.
b) The regulatory standards would also reduce the need for reactive policies in protecting vulnerable consumers. Moreover, to protect the vulnerable current network pricing should be reviewed to ensure that it is fair and a move away from volumetric to fixed type charging.

Q10. Consumers are more likely to trust information that is provided by an independent body. Consumers should be provided with advice on how they can reduce their energy consumption and how they can change their current energy systems to more efficient energy systems. This information should be communicated through a clear marketing plan that uses all media channels. Additionally, information should be provided on carbon emissions, with a breakdown for each council area. This will enable the general public to see how their council area is doing in relation to the targets.

Q11. Causeway Coast and Glens Borough Council is currently supporting the Girona Project; Coleraine Smart Energy Demonstrator Project; and Smart Grid proposals;

Q12. Causeway Coast and Glens Borough Council is working with the Ulster University on heat mapping and the potential for mirco-grids.

Q13. There are several opportunities for NI consumers in decarbonising energy, such as; economic benefits, growth in skills within the sector, job creation, growth in new businesses and in ancillary services, plus the development of new commercial models for energy. Conversely, there will be many challenges that will need to be overcome, such as, protracted planning processes, capacity within the current systems, managing the installations of connections and smart meters, costs in getting current systems ready and engaging with consumers, changing attitudes towards energy production and consumption.

5. Energy Efficiency

Q14. What, if any, energy efficiency target or targets should be set for Northern Ireland?

Q15. How should we define, measure and monitor energy efficiency to optimise its potential in our homes, business, economy and environment?

Q16. What are the most important policy levers for government to ensure zero carbon in:

a) New domestic and commercial buildings by 2050?;

b) Existing domestic and commercial buildings by 2050?

Q17. What should the future of energy efficiency support look like and who should be the key delivery bodies?

Q14. Energy efficiency targets should be aligned to that of the Republic of Ireland that is because in a UK context, Northern Ireland's contributions are insignificant. Monitoring of energy usage should also be a target, including primary use and final use.

Q15. Energy efficiency should be defined as 'the reduction of energy required'. When measuring energy efficiency, you must look at the amount of useful energy that is transferred/ supplied. To monitor this effectively the systems need to be digitised and this data analysed, to ensure energy is being delivered appropriately. This data needs to be calculated against Optimising Renewable Energy sources with Market Tariffs.

Q16a. All new buildings should be required by law to incorporate decarbonisation systems and technologies e.g. Future Homes Standard in England complies with almost Zero- energy buildings. As well CCC NI Reports recommend that by 2025 no new homes should connect to the gas grid and should instead rely on low carbon heating systems such as heat pumps.

Q16b. Existing buildings should have access to grants, to assist with retrofitting of more energy efficient solutions. Incentives are imperative to engage the most consumers.

Q17. Northern Ireland should follow the model set out by the Sustainable Energy Authority of Ireland, to create a strong energy governing body. This separation should increase public trust in the system and enable the governing body to access sustainable cross sector and cross department support. This governing body should have the power to introduce energy efficiency schemes that use incentives to modify behaviours.

6. Heat

Q18. What is the appropriate pathway and timeline for the decarbonisation of heat between now and 2030, and subsequently to 2050?

Q19. What are the appropriate ways to measure the progress of decarbonising heat?

Q20. What are the most cost-effective and sustainable steps that government might take to accelerate the reduction of the carbon intensity of heating fuels?

Q21. Is decarbonisation of the gas grid a viable option and what evidence can be provided on both the speed and affordability of decarbonising the gas grid?

Q22. What evidence can you provide on the opportunities for district heating schemes in Northern Ireland and where should responsibility lie for facilitating these?

Q23. Can you provide any evidence or information on the opportunities for geothermal heat supply?

Q18. See UK Energy Report 2018 – Kick Starting the decarbonisation of heat. It is vital that a "whole-system approach" is adopted to decarbonise heat, and that it is integrated into a wider strategy covering transport, energy, and industry, Set up a cross functional steering group to making and review recommendations. Review Element Energy Analysis of the range of uptakes of heat pumps and gas ambition which feed into 8 different pathways for decarbonisation by 2050 with mid-term milestones.

Q19. To measure the decarbonising of heat, you would need to look at the usage of carbon free electricity, green gas and non-fossil fuels compared to the consumption of conventional fossil fuels. There is also a need to monitor how many dwellings are retrofitting or installed at build phase heat pumps and this will reduce the reliance on fossil fuels.

Q20. Government could look to a centralised fully decarbonised high capacity district heat pump = e.g. MAN Electro Thermal Energy Storage technology. In addition, there will be a need for private investors to support decarbonised district heating meters plus the introduction of regulations.

Q21. Hydrogen would not be a financially sound alternative to decarbonise gas, as the current infrastructure within Northern Ireland is not set up to support hydrogen flowing through the pipes. An overhaul of all the current pipelines and the introduction of hydrogen storage facilities would be required for a hydrogen gas solution, therefore the cost would be prohibitive. The only viable gas alternate may be green gas.

Another low carbon option would be the electrification of heat, here in the Causeway Council area, we have a data centre in our Atlantic Link Enterprise Zone that would be suitable for this process.

Q22. Smart Grid Ireland has facilitated a feasibility study validated by Queens University on the potential to share resources within large public sector facilities e.g. Royal Group of Hospitals located in the centre of residential housing areas. The responsibility for such an option is cross departmental between communities and other public sector departments / buildings.

Q23. Geothermal heat supply opportunities will depend on the locations chosen. Exploration of these sites will be paramount to ensure that the hot water supply can be easily accessed. Within the Tellus project, a geological survey of Ireland was commissioned, this should be extended to cover Northern Ireland.

7. Power

Q24. What is the appropriate pathway for the decarbonisation of power from now to 2030, and subsequently to 2050?

Q25. What target for electricity consumption generated from renewable sources by 2030 is ambitious, achievable and affordable?

Q26. How can the new infrastructure necessary to meet a new renewable electricity target be delivered in a timely, affordable and acceptable way for consumers and society?

Q27. What innovations and solutions could contribute to meeting a new renewable electricity target?

Q28. What market incentives and support are necessary for investors to deliver the investment in renewable generation assets at a scale that will achieve a new renewable electricity target?

Q29. What steps need to be taken by Government to facilitate investment in offshore and marine renewables for NI?

Q24. Investment in the infrastructure relating to the electricity supply in Northern Ireland and the expansion of the DS3 programme. In addition, investments in technology (AI, Blockchain) that meet the demands for transformational growth that will reshape the economy. Potential for investments in alternative technologies to meet specific needs e.g. rural transport.

Q25. Ambitious – 80%, Achievable and Affordable – 70%

Q26. Engagement with all other councils within Northern Ireland to develop a comprehensive roll out plan, supported by the necessary external agencies. Option to create a steering group to assist with delivery and implementation.
On a local level, the continued installation of smart meters to all homes and businesses, as a means to monitor progress and changes in energy patterns.

Q27. To meet the renewable energy targets, homeowners and businesses need to be incentivised to change what they already have. Electric vehicles need to increase their mileage per charge or significant investment will be needed to install EV charging points. Electricity for these vehicles will need to be charged at the normal rates. Homeowners will require practical solutions to have EV chargers installed in their homes, with minimal disruption.
Advances within technology need to be made; energy storage options, micro-grids, AI, Blockchain and IOT, parity within the grid and reduction of costs. This technology will need to be embraced by heavy energy users, such as the public sector, to be viable and this will in turn create opportunities for inward investment.

Finally, a new high speed, secure and resilient telecoms metering infrastructure and significant network reinforcement.

These changes have the potential to lower operating costs, increase the production of renewable energy and remotely track consumption via smart system management.

Q28. Causeway Coast and Glens Borough Council would look to reduce the amount of time it takes for planning permission to be granted for any project related to renewable energy. As well as quicker planning approval, businesses would need faster connection to the grid and pricing guarantees.
Moreover, there would need to be a recruitment drive to get more highly skilled engineers into the sector, to be able to facilitate these demands.

Q29. The incentives for this investment need to be attractive, for instance, opportunities to enter into long term contracts, providing financial securing for any investor. Changes to be made to planning to ensure that any energy related project is processed as quicker as possible. Finally, the government could support a geological survey to identify prime locations for these investments to harness the most renewable energy.

8. Transport

Q30. What would be an appropriate pathway to decarbonised energy for transport to 2050?

Q31. What role should active travel have in the decarbonisation of the transport sector and what should government do to support this?

Q32. What energy infrastructure is needed to facilitate the uptake of electric vehicles in line with UK Government's 'Road to Zero' targets?

Q33. How will transport integrate with other energy uses (e.g. homes with solar generation, battery storage, EV charging) and what can government do to optimise the opportunities represented by this integration?

Q34. To what extent can alternative low carbon transport fuels contribute to decarbonisation of the transport sector?

Q35. Do you have any data/research to help inform and reduce the carbon intensity of our transport energy in order to achieve net zero carbon by 2050?

Q30. The Element Energy Pathway proposes an extension to the range of transport with a ban on eliminating the internal combustion engine by 2040. Council would encourage the continuation of efforts to secure funding relating to the roll out of fully electric buses and the development of hydrogen fuel cells. Finally, there is a significant need to engage with stakeholders (vehicle suppliers, energy markets, government, councils, communities and customers) on developing prototypes within this area.

Q31. Currently only 5% of all journeys in Northern Ireland are made by using public transport, this accounts for 35% of all the energy expended on transport. There needs to be a cultural shift within society to encourage a move away from personal car usage to public transport. Perception of public transport is that prices are continually increasing for are service that is unreliable, changes need to occur. There is increasing support for continued investment in public pedestrian and cycling infrastructure and a continuation of promoting a cultural shift to active travel and public transport. The benefits of this include; decarbonisation, clean air, active travel, improved health and reduction in congestion.
Additionally, the government could incentivise a move towards the purchase of hybrid and electric cars through insurance cost reductions and tax incentives.

Q32. Significant investment into the installation of EV charging points, with electricity charged at normal rates. Incentivising zero emission and clean air technologies through the purchase of electric vehicles.

Q33. Any new system designed in relation to smart energy should take into account the need to be able to communicate with the smart systems already in existence (smart home technology and smart cities), such as solar generation or battery storage. Ideally all systems will be able to communicate with each other either vertically or horizontally, providing real time data, to optimise the performance of the network and reduce costs for consumers.

Q34. The roll out of hydrogen and full electric buses will provide a significant contribution to the decarbonisation of the transport sector. This will only be possible if the infrastructure is put in place to accommodate these changes (additional EV charging points, Solar power, photovoltaic (PV), Battery storage and electric heating.)

Q35. In London ‘Over 2,600 diesel-electric hybrid buses currently run through the capital, making up 30% of the bus fleet.

9. Other Issues:

a. Security of Supply

Q36. What specific risks to security of energy supply are likely to emerge as a result of our changing energy mix, and what actions can be taken to mitigate these?

Q37. What measures or indicators could be adopted or developed to monitor energy security of supply?

Q36. Production of renewable energy can irregular therefore convention means of supplying energy will need to be maintained, to ensure no break in supply. This can be mitigated by having large energy supplies in reserve, using battery storage solutions. This also means that energy can be purchased from Europe when rates are lower, preventing fluctuations in the cost of electricity.

Q37. Introduction of 'smart' controls to assist with the monitoring of energy security and the installation of additional gas interconnectors to keep up with demand. In addition, more emphasis to be put on the development and implementation of Carbon Capture Use and Storage (CCUS) systems.

b. The Role of Data

Q38. What is the most cost-effective method of capturing consumer energy usage data in electricity and natural gas (where meters are in place)? In heating oil (where there is no metering obligation)?

Q39. What concerns need to be addressed regarding data privacy, security and/or ownership?

Q40. What are your views on applying the key recommendations of the Energy Data Taskforce for NI?

Q41. What organisations or businesses do you see as having a key role in optimising the value of data? How will they do this?

Q38. In line with government policy, the installation of smart meters that can provide real time consumption data. In relation to heating oil, providing an incentive for homeowners who use heating oil to provide their annual consumption data.

Q39. Comprehensive legislation relation to the use of data collected over and above the stipulations of GDPR. Legislation to include ownership of data and detail of what data should be restricted.

Q40. Causeway Coast and Glens Borough Council would support the application of all the key recommendations of the Energy Data Taskforce for NI.

- Digitalisation of the Energy System
- Maximising the Value of Data
- Visibility of Data
- Coordination of Asset Registration
- Visibility of Infrastructure and Assets

Q41. NIE to support government's strategic decision making and SONI to provide operational data usage from smart metering. Universities to provide comprehensive analysis of data.

c. Carbon Capture and Storage

Q42. What steps, if any, should NI policy-makers consider with regard to the development or implementation of CCUS in NI?

Consultation will be needed to determine where these facilities will be located.

d. Energy and the Economy

Q43. What specific economic opportunities will arise from the decarbonisation of energy?

Q44. What skills are needed to realise the potential economic benefits of energy in the future?

Q45. What are your views on the future of overall energy demand in NI and how can we ensure that any potential demand growth aligns with our net zero carbon target?

Q43. The low carbon market is continuing to grow and is projected to deliver trillions of US dollars in revenue in the coming years. The government needs to be ready to exploit this opportunity through establishing energy networks within Northern Ireland that can deliver these low carbon solutions and provide the right types of incentives. Additionally, Northern Ireland will need to address a skills shortage within the energy sector, this will lead to increased job creation within this sector. Finally, when Northern Ireland develops its own decarbonised energy solutions, we reduce our reliance on external resources, leading to greater energy security. Q44. The private sector will need to recruit more engineers, data analysts, environmental scientists, software developers etc. Q45. As the population of Northern Ireland continues to grow, energy supplies will continue to be stretched. This makes the development of this energy strategy vitally important. However, this strategy will not be successful if it is too complicated for the general public to comprehend, engaging the entire population will be critical if Northern Ireland is to meet its net zero carbon targets. It has already been identified that there is a skills shortage within the energy sector and schools, need to ensure that their students are exposed to a variety of opportunities highlighting career paths in this sector. Causeway Coast and Glens Borough Council is aware of the importance of STEM education within schools that is why we have supported over the years, STEM Villages at Air Waves and the Salmon and Whiskey Festival.

e. Delivery Framework for an Energy Strategy

Q46. Do the existing division of responsibilities and powers across government enable the most effective approach to the overall aim of decarbonising energy? If not, what are your suggestions for improvement?

Q47. What are the opportunities for local government to contribute to the delivery of the net zero carbon target?

Q48. What are your views on how statutory duties and accompanying legislation and regulatory frameworks would need to change to facilitate the transition to net zero carbon by 2050?

Q49. Is there a need for a dedicated organisation to champion, lead and deliver sustainable energy interventions? If so, what should this look like?

Q46.Northern Ireland needs a dedicated department that oversees every aspect of energy transition within the country. This should also include significant partnership with the Republic of Ireland and Scottish governments.

Q47. Causeway Coast and Glens Borough Council are involved in a few energy initiatives e.g. Girona Project; Coleraine Smart Energy Demonstrator Project; Smart Grid proposals. The Council are currently engaging with local businesses to assess energy needs, with the objective of encouraging/ supporting these businesses to transform their energy structures, leading to cleaner energy and cheaper bills. If this energy strategy places a greater onus on local government to help meet these targets, consideration needs to be given to a dedicated energy team.

Q48. Current legislation will not deliver net zero carbon by 2050, the following changes should be considered:

- Development of legislation on decarbonisation of heat/ transport.
- Streamlining process for utility companies to acquire land that will permit strategic infrastructure development.
- Incentives to promote development and installation of low carbon technologies.
- Proposed legislation to include flexibility to allow energy companies to seek investment in anticipation future needs.

Q49. Council wholeheartedly agrees that there should be a dedicated organisation leading these sustainable energy interventions.

10. Additional information

Q50. Is there anything else you would like to add in response to this Call for Evidence?

This energy strategy needs to focus on the consumer, as for too long the focus has been on the suppliers, with few energy option/little competition in Northern Ireland to encourage competitive pricing/ energy solutions.

The general public find matters relating to energy difficult to understand, therefore it is essential that there is an effective communication/ marketing plan that will convey to the public the importance of this energy strategy.

The general public need to be informed that if they make simple changes to their approach to energy, with support from Government and other local authorities, they can not only achieve substantial savings but contribute to the government's targets.