



Action for Warm Homes
Northern Ireland

National Energy Action Northern Ireland
Response to the Department for the
Economy's Energy Strategy:
Call for Evidence

March 2020

About NEA

NEA is the national fuel poverty charity working to secure affordable warmth for disadvantaged energy consumers. NEA's strategic aims include influencing and increasing strategic action against fuel poverty; developing and progressing solutions to improve access to energy efficiency products, advice and fuel poverty related services in UK households and enhancing knowledge and understanding of energy efficiency and fuel poverty.

NEA seeks to meet these aims through a wide range of activities including policy analysis and development to inform our campaigning work, rational and constructive dialogue with decision-makers including regulatory and consumer protection bodies, relevant Government Departments, the energy industry, local and national government and we develop practical initiatives to test and demonstrate the type of energy efficiency programmes required to deliver affordable warmth.

NEA is primarily concerned with energy policy whilst maintaining a watching brief on social justice policies including income inequalities and levels of poverty in Northern Ireland.

Protecting vulnerable customers is our key aim so we work both reactively and proactively to ensure policy makers and regulators recognise the needs of the vulnerable in its widest sense. With tighter household budgets it is more important than ever that consumers are getting the best deal. Paying for domestic energy makes up a substantial portion of total household expenditure, so it is of specific concern to us but is often relegated in the ever-busy policy environment.

Background

Based on the 2016 House Condition Survey (HCS), Northern Ireland has a rate of fuel poverty at 22%. It is also estimated that there are approximately 43,800 households in extreme fuel poverty which means they need to spend over 15% of their total income to heat their homes. Additionally, one in five households in Northern Ireland are living in relative poverty and 19% of working age adults in the private rented sector spend more than a third of their income on housing.

The cold kills, and between August 2017 — July 2018 there were 1,500 excess winter deaths in Northern Ireland. According to the World Health Organisation (WHO), a third of these deaths are directly attributable to living in cold damp homes.

Improved insulation and heating standards are seen as the most rational and sustainable means of ensuring affordable warmth. Poor housing standards are responsible for the impaired physical and psychological health of millions of UK households. The links between low indoor temperature and poor health have been well understood for many years. Cold homes increase the likelihood,

repetition and the severity of respiratory and cardiovascular illnesses hence leading to increased excess winter death rates as outlined above. The links between dampness and mould growth on asthma and allergies are also well known and understood as well as the impact that a cold home has on poor mental health, low self-esteem, educational performance and social isolation.

Additionally, and unique to Northern Ireland, 68% of all households are reliant on home heating oil, a non-regulated fuel.

Response

NEA NI is pleased to respond to the first stage of the Energy Strategy consultation process through this initial Call for Evidence. The journey of decarbonisation of energy from power generation to end consumer in Northern Ireland is a momentous one and we commend the Department for the Economy (DfE) for their wide engagement with this Call for Evidence.

This strategy will impact upon every energy commodity in Northern Ireland from power station, to building, to vehicle. However, as a fuel poverty and energy efficiency campaigning charity, NEA NI will be specifically focussing on the key considerations for domestic housing stock and low-income householders.

The most recent statistics from the 2016 House Condition Survey stated that 68% of homes were reliant on domestic home heating oil to heat their homes, and while we expect that that may decrease with the roll out of gas, it still will remain the dominant fuel and this will require a specific bespoke solution in the roll out of decarbonisation. The latest Utility Regulator (UR) transparency report, published February 2020, showed 258,088 domestic gas connections in NI¹.

In terms of fuel poverty intervention investment, annually circa £25million is spent on the Affordable Warmth Scheme and the Boiler Replacement Scheme run by the Department for Communities (DfC), and a further £9million lifted from electricity bills via a Public Service Obligation (PSO) for the Northern Ireland Sustainable Energy Programme (NISEP), of which 80% is ringfenced for fuel poor households.

Whilst the average SAP ratings have increased, according to the 2016 House Condition Survey, there is no definitive data on the full scale of hard to treat homes. A paper subsequently published by the Northern Ireland Housing Executive (NIHE) estimated that it would cost £2billion to bring all dwellings up to SAP rating of 68+.

¹ <https://www.uregni.gov.uk/sites/uregni/files/media-files/2020-02-27%20Q4%202019%20QTR.pdf>

With such a huge remit within this Call for Evidence, it is not possible for NEA NI to address every aspect; we will specifically focus on issues most pertinent to fuel poverty, energy efficiency and to ensuring that this process holds the principles of a just transition. We believe that the process of developing this energy strategy will require an agreed set of principles as to how the future of decarbonisation in domestic homes should be rolled out.

NEA NI also provides the secretariat to the Fuel Poverty Coalition Northern Ireland (FPC), which has also responded to this Call for Evidence separately. Our own response shares synergies with the key issues identified by the FPC. In the same vein we chose to work on four key themes of energy policy that we feel impact our issues of key concern, including broader considerations that cover a wide range of issues relating to energy inefficiency, low income and high energy costs, all key contributors to fuel poverty and the devastating impacts this has on people and the broader economy.

The four themes are:

- 1. Energy Efficiency**
- 2. Adoption of New Technologies for Heat**
- 3. Affordability and Who Pays**
- 4. Consumer at the Centre**

1. Energy Efficiency

Energy efficiency is the most crucial issue for us to address, as it creates the greatest savings of both carbon emission and the units of energy used by each household. Homes eventually adopting sustainable heating systems will need to be energy efficient. The co-benefits from insulating homes effectively and to a high standard not only reduce carbon emissions but also improve health outcomes and reduce energy bills. In order to effectively tackle energy efficiency in Northern Ireland, it is crucial that a statutory energy efficiency target is set. What that target should be is difficult to ascertain without appropriate data, which at present seems to be dispersed and indeed missing. This target would need to apply to all aspects of our world both domestic and non-domestic.

Evidence worth examining include:

Recent research carried out by the NIHE shows modelling on the reflective costs of interventions for certain scenarios.²

² NIHE / BRE report into “Cost to make dwellings in Northern Ireland Energy Efficient” (2019).

Key figures from GB modelling with a view to scoping Northern Ireland equivalents. The Business, Energy and Industrial Strategy (BEIS) Select Committee identified several of these in their 2019 report on energy efficiency:

- NHS Savings: Reduced NHS costs of roughly £1.4 billion each year in England alone. The health service is estimated to save £0.42 for every £1 spent on retrofitting fuel poor homes;
- Economic Growth: This ‘cost-effective’ approach would require an estimated £85.2 billion investment but would deliver benefits (reduced energy use, reduced carbon emissions, improved air quality and comfort) totalling £92.7 billion — a net present value of £7.5 billion;
- Optimises infrastructure investment: Energy efficiency can prevent expensive investments in generation, transmission and distribution infrastructure and reduce reliance on fuel imports — with a present value of avoided electricity network investment of £4.3 billion; and
- Competitiveness: The UK is a net exporter of insulation and energy efficiency retrofit goods and services.

NEA NI has identified further areas that should be explored with regards to the value that energy efficiency schemes could present, but have not yet been assessed:

- The direct value of reductions in bills and energy arrears for households, and how this would increase spending within poorer communities;
- The avoided cost of reducing carbon emissions or improving air quality via alternative actions;
- The avoided costs of investment in non-efficient forms of embedded power generation which can increase local air pollution;
- The value of reductions in rent arrears, void periods for landlords and higher stamp duty yields to HMT;
- Uplifts in VAT yields to HMT for energy efficiency measures compared to the lower rates applied to VAT on gas and electricity;
- The positive impact of reducing inflation, gas imports and the effect on the UK’s balance of payments;
- The extent of the creation of a healthier workforce and jobs from a more buoyant energy efficiency industry;
- The value to the UK economy of wider benefits such as up-skilling the workforce;
- The value of avoided costs to energy consumers of reducing network reinforcement by Distribution Network Operators. In turn, the positive impacts of also reducing civil utility works taking place in UK streets;
- More comfortable internal temperatures in homes will lead to fewer premature winter deaths and despite being unpalatable premature mortality has a clear cost;
- The reduced costs to mental health and social care, as reductions in bills can reduce stress and improve mental health for occupants and keep people living in their homes longer; and

- The cost effectiveness of zero-capital interventions such as advice which can also create less damp and mould growth within homes, in turn reducing respiratory problems at little or no cost.

While older housing stock is on the decline based on data from the 2016 House Condition Survey, a high percentage of the homes that will exist in 2050 are already built and the highest percentage of domestic energy demand is for heat. It is in that housing stock that the success of any new energy strategy will stand or fall.

As outlined above, there are issues with gaps in the current data available regarding energy efficiency and energy performance of homes. Some of that data cannot be easily aggregated which needs remedied. A particularly harmful gap is in the private rented sector (PRS) and the levels of uptake of energy efficiency measures in that arena signalling a policy failure in many aspects of the PRS.

The DfE will be unable to devise the most cost-effective strategy if we do not know or understand what we are working with. This includes the housing stock, its condition, the work already carried out, the technology used to heat it and its energy efficiency rating.

A range of organisations need to be brought together in a data collection forum including the Building Research Establishment (BRE), the NIHE, Housing Associations, Local Government, Universities, and VCSE organisations. They could create a standardised and centralised database for recording data (measures installed, fabric, costs) contributing to models of what is possible. There will also be the possibility of collecting real-time data using Smart technology, which is increasingly present in people's homes but will require appropriate protections.

The setting of a statutory target will accelerate action across Northern Ireland, which will also facilitate the pressing need for new building control regulations and improved investment by landlords and housing associations. GB is working toward EPC band C by 2030.

With any target, there will be a need for oversight and scrutiny in the delivery of the target — aimed at different groups including energy providers, categories of homeowners, and public bodies. Leadership in this work is crucial and the DfE will need to establish a structure which reflects the role that all will be required to adhere to. The operational outworking will need to include delivery models such as advice, installations, grants and surveys — from energy companies, to installers, builders, architects, surveyors, public bodies, VCSE and more. Consensus, coordination and consistency across all of these interests will be required. The customer journey is crucial in the process with due regard for the most vulnerable.

Councils should be integral to this process, as they have the best opportunity to lead on heat networks as well as educate and enforce on the upgraded building regulations.

There is recognition that the cost of decarbonisation will be significant. These costs must be managed in a way that creates the least impact on consumers. There are some practical actions and then a set of principles that may help with this aspect. In terms of action — there is a need to establish some comprehensive costings that will include the cost of upgrading different types of property (rural bungalow, social housing stock, apartments, etc) and to establish the payback periods for the upgrades.

Principles

- Ensure the most vulnerable are protected;
- All options should be affordable to the average person;
- Seek innovation in financial models — e.g. Would the banks be able to create new mortgage models for energy efficiency?
- Whole house approach rather than one aspect at a time; and
- Prioritise the worst performing to make the maximum gain.

Equity is a Key Principle (Energy Efficiency)

The thresholds for who is able to access energy efficiency measures are mainly means-tested based on gross household income. There will need to be some scoping in the PRS, as the statistics show that this sector has higher levels of fuel poverty. Any new system should influence landlords to access grants and programmes. The existing schemes are also very popular and often oversubscribed. In terms of the rural divide where there is no gas network available, is it worth considering if the “off-grid” households could get priority.

Ensure Good Standards are Enforced (Energy Efficiency)

Standards of work and having trusted installers are important. Strong enforcement and a high bar to qualify to be an approved installer are required to protect the good and reputable companies from bad reputation created by others. Scrutiny is important.

2. Adoption of New Technologies for Heat

NEA NI is not in the position to advise on what technology is recommended, but we respectfully suggest a number of principles to consider in the strategy timeline.

While natural gas remains a fit for the short to medium term, there is a need to scope out how gas pipelines etc. can be used with any new and emerging technology. NI must not be left with stranded assets nor forced to use a highly expensive asset as we are out of step with GB and Europe. The technologies currently in the mix are district heat, heat pumps, storage heaters, hydrogen, biogas

like bio methane mixed in gas and maybe others. There is a consideration for short, medium, and long-term solutions but there is no silver bullet.

There is an accepted climate imperative that NI addresses its carbon emissions as recognised in the UK Legislation, that sets out a target of net carbon zero by 2050. This target requires legislative adoption in Northern Ireland, which is both an opportunity and challenge for those in fuel poverty. The opportunity comes from the target allowing for the status quo to be genuinely challenged. For too long, householders have been trapped using old technology in poorly insulated homes in both the private and rented sectors, as well as purchasing unregulated fuels to produce heat.

We do, however, recommend that the Department sets out a clear timeline that will show what is achievable during the coming 30 years. This timeline must recognise that:

Most technologies that will be effective in the short term are already tried and tested;

- Emerging technologies will be required to upgrade what is there (e.g. biogas in the natural gas pipes); and
- Emerging technologies could help to leapfrog carbon technologies altogether (hydrogen, heat pumps etc).

The timeline must set out what will happen in the next five years, up to 2030 and then beyond that, providing householders with sound advice in order to be able to plan ahead, therefore, the technologies should be tried and tested and all cost implications clear.

Education on Technology

There will need to be a process of engagement, listening, informing householders, and enabling and achieving new behaviours. The householder will require support, incentives, and independent information that is bespoke to each property.

There is a clear need for advice and information on options, including helping householders understand what are the best technologies and implication for each given house, and how they can navigate the options from insulation, to boiler replacement, to integrating new energy sources, and even to exporting surplus energy.

Getting people to upgrade what they have — using smart controls, efficiency measures and access to grants that are already available may be the best way to get people on the journey.

There are already education projects in schools, and this could become part of a larger scale campaign with solid, reliable, consistent messages for how different categories of householder can access support and action.

A consideration could be to consolidate this within one organisation. Actions to consider:

Short Term:

- Reduce demand for heat in dwelling.
- Use surplus wind energy to heat dwellings.
- Deep retrofit — insulation and ventilation.

Medium Term:

- Preparation planning to end new oil installations (currently 68%).
- Information / education on new technologies.
- Support for fuel poor households to install gas.
- Explore renewable options.
- Need baseline test for all new technologies (conditional study of).
- Support for non-fossil fuel initiatives.
- Explore community-based schemes.

Long Term:

- Alternatives to Gas integrated.
- Wind generation within homes.
- Electric options tried and tested.
- Thermal storage — electric storage.

Manage the Cost

Beyond the issue of knowledge and education, a further barrier and risk is the cost of adopting and running some new technologies. Many of the alternative technologies that exist today are beyond the price range of the fuel poor including heat pumps, and solar installations and will require a new tariff in place to help with the efficient running. And as outlined above, the cost implications of installing new technologies should be provided clearly at the outset by the independent advice function and be appropriately installed by a well-trained and developed industry with appropriate opportunity for redress if problems arise.

District Heating

District Heating remains a niche opportunity now. If it is to become a serious player in the energy field, it will require high levels of support and needs regulation like the UK government is currently consulting on.

Smart Technology

The move to new technologies will be facilitated by smart tech. Already early adopters are using technology in the home to control heating timers. It will be important to help homeowners make the most of the smart tech as it holds great promise for increasing efficiency. The other side of it is the data that smart tech produces. The ability to access such data will be critical for Government to be able to tailor bespoke solutions that are much needed, given the variety of housing types across

the country, but this data also needs to be used in a way that does not put any consumer at a disadvantage. The vulnerable, in particular, will require support in gaining access and assistance with technology.

Considerations:

- Costs associated with these.
- Cost, ease of use, accessibility for consumers, especially the fuel poor, these should be the key considerations.
- Technology needs to be suitable for the housing type and the occupants.
- Are there 'SMARTER' ways to use existing tech and infrastructure e.g. the grid, agreements on usage time etc will reduce the need for large scale grid reinforcement — there will still be a cost but this could be reduced significantly through demand changing behaviours and better use of existing tech and infrastructure.
- Protection of data.

As outlined above but worth reiterating, while prudent to encourage innovation in the sector, at the moment there is no silver bullet technology. People need to access the solution that is best for them and therefore need clear independent advice.

3. Affordability and Who Pays

Transition to a low carbon economy will require huge investment in alternative means of heating and powering our homes, as well as for energy efficiency retrofit programmes. With regards to power — we will need different grids, smart technology, more distributed sources, and more of it. Currently it is the bill payer (domestic and non-domestic) who pays for investment. Business in NI also pay more than business in GB for their energy, whereas domestic consumers pay less towards levies in their bills than GB consumers.

There is an acknowledgement that this programme of transition is going to cost a lot of money and that the public will have to make a big contribution either through higher bills or through general taxation. People need to know the figures. How much will a transition cost? What will different aspects cost, such as deep retrofit, boiler replacement, introduction of heat pumps, increased storage etc? We are concerned that raising bills will indeed push more vulnerable people into fuel poverty and they will therefore require some form of help and protection including grants and social tariffs. Energy in the future, which is required for good health and well-being, will make up a greater proportion of the household budget and therefore it is imperative that we use all levers to drive down the household bills. Use less energy due to living in an energy efficient home must be the first lever which links back to our first point, namely the need for a statutory energy efficiency target for NI.

We believe that once the upfront capital investment is done, customers should be able to enjoy a better quality of life, improved health outcomes and lower fuel bills so long as that bill is affordable. Whatever solutions are provided must bear these factors in mind. We must therefore have data that can scope out the impact of new technologies affordability on the household and look to adopt the necessary financial models to support these households such as grants, 0% pay scheme to change oil to gas, house value-based loans, reviewing current expenditure, co-payment system models for consumer and provider.

Another consideration for the transition is creating a willingness for people to change. People change habits reluctantly so any strategy to transition must adopt different behavioural change theories.

Ensure Fairness and Consumer involvement in Financing

The current system of paying for home upgrades is not meeting identified need. All fuel poverty interventions together currently account for around £25 million.

An early exercise is to identify all those who have a stake in the energy system that leads to where the costs can be recovered. This includes the Departments of Government, where there is complementarity of outcome. Longer term benefits costs for the Departments of Health or Education?

- The Northern Ireland Sustainable Energy Programme (NISE) needs to be ring fenced (short term action).
- Housebuilders (developers) have a huge responsibility and they will only be driven by the regulations that exist. There could be incentives where developers pay a levy to help subsidise other upgrades.
- Energy companies themselves have a clear role in that they need to be invested in the energy performance of their customers. They have the reach and they know how to help minimise bills.
- Polluter pays — the highest energy industrial users pay a larger amount into a levy because they use more energy. It would seem sensible to ensure that the increased amounts that are collected in this way are ringfenced to spend on energy efficiency.
- Another way of thinking about spreading the cost is carrying out area-based approaches where there are economies of scale in local areas — estates, villages etc. This could be more locally managed with incentives for the local area in getting high levels of buy in.

4. Consumer at the Centre

Currently energy policy and regulation are spread over several organisations and Departments. Energy policy is currently largely driven by the need to ensure security of supply, reduce costs, and now, to transition to a low carbon system. There is a need to keep the question of cost to the fore

and in particular, how we protect people and families in fuel poverty. Decarbonisation costs could have a disproportionate negative impact on fuel poor. The Energy Strategy should protect fuel poor customers. There is a deliberation to be had around balancing the cost impact on consumers and for it to be placed on general taxation. There is an identified need that exists for all the relevant information on all areas: energy efficiency, renewables, grants, billing. The concept of a one stop shop has been raised time and again over many years and this should be a key consideration for consumers as we outlined above.

There is a new emerging group of consumers who also produce information (Prosumers). These people may be more technically aware but still require information, advice and support to make the most of what they have invested in and to ensure they can be confident in independent and impartial information. As potentially a 'savvy' consumer, their action should not burden the less able to pay or fuel poor. The whole system of energy needs to be transparent and clear as to who pays and why and this can be done by improving engagement at all stages.

As there are many different stakeholders who are on the supply side of energy policy, there are many on the demand side who each has a distinct set of insights and issues. Some of the distinct voices include:

- Older people;
- Private homeowners;
- Rural dwellers;
- Social housing;
- Private rented tenants and their landlords;
- Young people;
- Low earners who fall outside of benefit entitlement;
- People with physical or mental health issues.

Regulation and Policy Needed to Protect consumers

Regulation is a necessary part of the work of protecting the vulnerable consumer. Policies and schemes must be created and deployed that are clear to operate.

The consideration of consumers in regulation allows for a better understanding of the consequences of a policy or strategic decision.

Create One Source of Responsibility (Consumer at the Centre)

Different Departments have responsibility for different parts of the system and there are many other public bodies who have input from consumer rights to energy efficiency programmes. While it is unrealistic that one Department maintains full responsibility for all aspects of energy policy, there is a need for a coordinating mechanism on the policy side and also one on the customer facing side.

Smart Data

As outlined above, we believe smart data has the potential to be used to gradually create the evidence needed in terms of behaviour and technologies that have been deployed. It has the potential to enhance efficiency and to tailor appropriate services. Smart data could be used to identify those in need of other forms of help such as identify those at risk e.g. self-disconnection.

Conclusion

Fuel poverty is a complex issue but there is a great opportunity to get the experts in the field into the room to get the policy right. There is a need to establish a process to join all aspects in an ongoing conversation with the key players including the consumer and people experiencing fuel poverty, industry, government and voluntary sector.

We look forward to working with you to this end.