Appendix 1 - Draft response to Dept for Economy consultation on low carbon residential heating – 2024

No.	Question	
	CHAPTER 1	**Climate Team incorporating comments from Belfast Building Control**
1	Do you agree with the criteria used to inform technology eligible for support? Yes No Please give reasons for your answer	Belfast has around 100,000 domestic properties with 63% of dwellings EPC rated D-G and a high dependence on fossil fuels for heating. These properties include significant numbers where it would be costly and disruptive to install ASHP (eg solid wall, an archetype commonly found in dense, older housing areas of Belfast with higher levels of fuel poverty - where the cost of retrofit is proportionately very high). The Belfast LAEP identifies retrofit (via a fabric first approach), district heating and the transition of homes currently heated by oil to low carbon heating (including hybrid systems as well as ASHP) as the most affordable near-term interventions to achieve net zero by 2050. A copy of the Belfast LAEP and its annexes has been attached. The techno-economic modelling and sensitivity analysis highlight the additional costs of relying on ASHP in isolation from measures to retrofit homes and establish heat networks. This is due to the need for high temperature ASHPs (in the absence of retrofit measures) and significant upgrades to the electricity grid. The most affordable pathway for the City involves the injection of biomethane into the gas grid (as it requires no changes at the household level and less investment in upgrading the electricity grid) though this depends on the price of biomethane. In all likelihood, biomethane is likely to be significantly more costly than natural gas and would be used more frugally leading to the uptake of more ASHP and hybrid heating systems. The provision of grants for low carbon heating at the household level therefore needs careful coordination with DFE's plans (if any) to support and incentivise district heating in urban areas like Belfast. If the heat zoning approach currently being trialled in England were adopted in NI, a situation could arise whereby grants are provided to households to install ASHP in areas that are subsequently included in a heat zone. This could be a wasteful use of public resources. The characteristics of Belfast's dense urban landscape with residential areas co-located with significant base loads and 10km of river makes it highly suitable for heat networks as evidenced in the LAEP. Promotion of an ASHP focused approach in isolation risks undermining the development and uptake of large-scale district heating solutions. In Belfast, funding support should be aligned with the recommended measures set out in the LAEP and hence focused on incentivising retrofit and investment in low carbon heat networks where heat pumps can be installed at scale in dedicated energy centres. Comments on criteria:

		#1. Upfront capital cost – We agree with the structure of the grant as an upfront payment, helping to minimise cashflow issues with applicants and reduce the premium of high-cost measures such as heat pumps. Experience in Great Britain and Republic of Ireland (RoI) has highlighted the value of heating suppliers applying for grants to reduce administrative burden on applicants. **#2. Technologies that currently offer efficiencies greater than 100%** – We agree with criteria but suggest inclusion of heat batteries and hybrid systems, recognising their potential role in terms of CO2 equivalent emissions reduction and increased affordability to householders. This will approach will also reduce the upgrade costs to the electricity grid. Please refer to the attached Belfast LAEP documents for the results of the techno-economic modelling and sensitivity analysis. **#3. Exclusion of technologies that includes the combustion of a fossil fuel** – Whilst we endorse a zero carbon approach to heating, we also recognise the potential risk of increased heating costs that can be associated with air source heat pumps (ASHP) and the subsequent risk of increased fuel poverty. We suggest in the short term, hybrid systems that incorporate natural gas should be considered for inclusion, given the plans to decarbonise the gas grid in the longer term. **#4. Consideration of air quality and health impacts** – we support. **#5. Upper capacity limit** – **#6. Technology that also generates electricity will not be eligible** – support. **#7. Primary heat/hot water source** – we have reservations about the exclusion of hybrid systems which may offer better affordability to householders. We refer to the Belfast LAEP and its Annexes which highlights poor levels of insulation across a large proportion of the housing stock in Belfast. ASHP are most suited in the short term to off grid properties but will be challenging for properties with solid walls, limited space and low levels of insulation.
2	Do you think that other criteria should be applied Yes No Please give reasons for your answer	No
3	The department does not intend to provide financial support for biomass boilers, do you think there should be exceptions to this? Yes	We support the exclusion in general, however, we recognise that in exceptional circumstances, property may clearly not be suited to heat pumps e.g. grid capacity, however location and local air quality should be considered. Any fuels being financially supported should also consider the implications of meeting proposed Target Primary Energy Rates

	No Please give reasons for your answer	(TPER) that maybe introduced within Building Regulations in 2025.
4	The department does not intend to provide financial support for hybrid heat pumps, do you think there should be exceptions to this? Yes No Please give reasons for your answer	In general, we support the exclusion of fossil fuel measures from the scheme, however, we recognise that some homes will struggle to attain comfortable temperatures and risk high electricity bills to attain comfort e.g. elderly and infirm. In addition, the premium upfront cost and disruption if extensive retrofit is needed associated with ASHP compared with conventional gas boilers is likely to remain significant despite a proposed grant scheme. Hybrid heat pumps have the potential to offer a more affordable solution especially for poorly insulated homes when configured to guarantee a cost saving to the consumer by switching between electricity and gas to utilise the lower cost option at any given time. Whilst currently utilising natural gas, the N. Ireland gas network has been designed to cope with increased blends of synthetic and low carbon gases such as biomethane. We would advise the Department to review the modelling, analysis and recommendations on heating options from the Belfast LAEP before excluding hybrid technologies.
5	Should a minimum Seasonal Co-efficient of Performance of at least 2.8 or higher be applied to the low carbon technologies considered for support? Please tick all that apply. Air Source Heat Pump Ground Source Heat Pump Water Source Heat Pump Please give reasons for your answer	We support the setting of a minimal CoP across air, water and ground source heat pumps. Consideration should be given to the minimum SCoP requirements in order to meet the standards for Building Regulations. These standards are possibly due to change next year. It would be recommended that any proposed SCoP should not be less than the standards in Building Regulation guidance. It is currently being considered for Northern Ireland to follow the minimum SCoP requirements in England, which in some cases is higher than 2.8 for space heating.
	CHAPTER 2	
6	Should all domestic buildings be eligible for low carbon heating technology support? Yes No Please give reasons for your answer.	Yes, across all types and tenures. Consideration should be given to lessons from other regions such as pros/cons of a means testing approach.
7	What minimum energy efficiency criteria in relation to domestic buildings should be met (if any) to make them suitable for a low carbon heating technology support?	Option C with consideration of the comments below: In line with UK Retrofit Strategy, Belfast City Council supports the fabric first approach to low carbon domestic retrofit. We suggest that a domestic grant programme aimed at optimising energy efficiency should precede grants for low carbon heating systems.

	Option A – No minimum energy efficiency requirements Option B – A valid EPC with no loft or wall insulation recommendations. Option C – An energy assessment of the home conducted by a technical adviser. Option D – A minimum standard of EPC rating. Option E – Other method (please specify). Please give reasons for your answer.	Further background information is required to understand why this funding programme takes a 'heat first' approach, such as - why did England and Wales remove the requirement for insulation to be in place first. We acknowledge the flaws of the EPC assessment system and limitations such as many certificates being out of date. We would welcome a technical assessment on conclusion of measure installation. We suggest that a robust assessment system be devised that takes on board outcomes of the recent consultation on EPCs.
8	If you selected Option C – do you think support should be available towards the costs associated with an energy assessment as part of support for the installation of the low carbon technology? Yes No Please give a reason for your answer.	Yes - the cost should be covered by any grant to avoid excluding low income households.
9	Do you agree that support for low carbon heating technologies is provided separately for owner-occupiers with alternative provision of support made for landlord, social housing, and non-domestic properties? Yes No Please give reasons for your answer.	Financial support is needed across all tenure types however different funding pots and mechanisms are required. **Owner occupiers** require support tailored to their needs recognising the difference between owning a home and being 'able to pay', as privately owned homes experience significant levels of fuel poverty. **Social housing providers** operate at a different scale and with different drivers that would be more suited to a ring-fenced NI equivalent of the Social Housing Decarbonisation Fund. **Private landlords** have different financial motivators and are likely to face sector specific challenges such as Minimum Energy Efficiency Scheme requirements which would be better served through programmes such as Warm Homes Grant and Home Upgrade Grant available in England and Wales.
10	Do you agree that self-build properties should be eligible for support at this time? Yes No Please give reasons for your answer.	**Yes.** These are generally commissioned for and built by individuals. Installation of low carbon heating should encouraged and supported.

11	Do you think additional financial support should be available to those homes in rural and island locations? Both – rural and island Rural only Island only Neither Please provide reasons for your answer.	**Yes.** Both rural and island with a system informed by lessons from the Home Energy Scotland programme. This reflects Belfast City Council's commitment to a just transition.
12	If you answered yes to Question 11, how would homes be identified as rural by the department? Please provide reasons for your suggestion	System similar to the Scottish Government Urban Rural Classification (provides a consistent way of defining urban and rural areas across Scotland. The classification is based upon two main criteria: population and accessibility).
13	Do you agree that to be eligible for support, a new heating installation should replace fossil fuel heating, replace direct electric heating, or be installed where no central heating currently exists? Yes No Please give reasons for your answer	**Yes.** Displacement of fossil fuel heating should be prioritised to maximise the emissions reduction benefits with the caveat that, as above, hybrid technologies are included as the most affordable option. Exceptions would need to be made for the 2,400 homes identified as having no central heating system in the 2021 census.
14	Do you agree that replacing a low carbon heating system with another low carbon heating system should be ineligible for support? Yes No Please give reasons for your answer	**Yes** but with qualifications around fuel poverty and health. We are conscious of the risk of low income households existing on current poor quality low carbon heating e.g. wood burning stove and may risk exclusion. The system requires allowance for anomalies to be addressed as it develops and will clearly benefit from lessons in other regions.
	CHAPTER 3	
15	Should households who have received energy efficiency support via schemes such as NISEP or Affordable Warmth be able to apply for additional low carbon heat support? Yes	**Yes.** Any funding support to date is likely to relate to insulation and gas boilers. These properties should be eligible however priority might be given to older boilers.

	No Please give reasons for your answer.	
16	Should support options be designed to prioritise or target certain groups of people (such as those on low incomes)? Yes No Please give reasons for your answer. If you answered Yes, please detail which groups should be targeted and how could this be achieved?	**Yes.** However, consumer, community and fuel poverty groups as well as social housing providers report significant issues in engaging vulnerable groups in energy efficiency programmes which suggests that targeting these groups will be challenging. The success of the programme in engaging these groups will depend on effective and tailored groundwork with householders. Any support for low carbon heat for these groups should be accompanied by support for any necessary upgrades to the fabric and CH system as well as education on how to use the new technology. This should draw on lessons from the NIHE retrofit programme. Which groups – use existing research from Consumer Council and Energy Action Network. Design should involve the NI National Energy Action network.
17	Should prioritisation or additional support be given to those with older (perhaps 15+ years) fossil fuel boilers? Yes No Please give reasons for your answer.	**Yes.** Older boilers have increased risk of imminent replacement with similar fossil fuel systems, locking homes into an additional 10-15 years of emissions.
18	Should additional support be offered to the consumer where no central heating system is present in the home? Yes No Please give reasons for your answer.	**Yes**. Lack of central heating system could be indicator of deprivation. The 2021 census reported 2,400 homes as not having a central heating system with approx. 97% of NI households taking part. Research suggests that lower income households and rental tenants are less likely to engage in censuses*1 Any carbon reduction programme must be balanced with wellbeing of householders and just transition. *1 De Montford census research
19	Should those with multiple occupied properties e.g. holiday homes be eligible to apply for support for more than one property? Yes No Please give reasons for your answer.	**No** – Belfast City Council subscribes to a just transition approach and in line with this, recommends that in its initial form at least, priority should be given to 'first homes' or primary residences. In the event that the grant system proves to be undersubscribed, conditions may amended to allow a reduced grant amount or proportion.
20	Do you agree that the department has a requirement for consumer protection measures to be	**Yes.** Any programme should be supported by an established and robust consumer protection and quality assurance standard. In line with lessons reported by SEAI, quality assurance should be incorporated at the start of the process rather than relying

	associated with support for low carbon heating technology? Yes No Please give reasons for your answer	purely on work quality checks post installation. Award of contract to contractors should be conditional on membership of accredited organisations and the payment of contractor invoices should be triggered by final quality assurance sign off. Electrification of heat could also lead to an increased fire risk from poorly designed and installed heat pumps. The Electrical Safety First report highlights the disparity between regulation around gas and electrical installers and the emerging risks from electrification of heat and transport.
21	What do you feel would be the best method of consumer protection? Option A – Need for installers to be registered to a certification scheme such as MCS. Option B – The department to set its own consumer protection requirements. Option C – Other Please give reasons for your answer. If you chose Option B or Other, what consumer protection requirements should be specified?	**Option A–** We support the requirement for MCS certification based on roll out of their proposed scheme redevelopment. Consideration should also be given to standards such as Trust Mark and standards such as PAS 2035. The approach should take lessons from established funding schemes in GB and Republic of Ireland. ,
22	If it is required for installers to be accredited to a certification scheme in order to take part in any future government support, should funding be made available towards certification fees? Yes No Please give reasons and evidence to support your answer.	**Yes.** We support the principle of supporting contractors to become certified. We note that substantial annual certification costs can exclude micro and small enterprises which comprise a significant proportion of relevant contractors. Other regions report lack of skills as one of the greatest barriers to retrofit and they recommend any options for encouraging contractor uptake for certification.
23	Should any electrical work completed as part of the low carbon heating technology installation be required to be certified by an approved accredited body? Yes No Please give reasons and evidence to support your answer.	**Yes**. The construction industry reports high levels of uncertainty amongst electrical contractors around new technologies such as low carbon heating, energy generation and storage. There is currently a risk of contractors under-estimating the how different installing heat pumps are from conventional heating systems. Trainers report multiple instances of heat pump course attendees seeking solutions to address issues problems that have arisen in their installations. Lack of certification risks poor quality installations and reputational risks to the technology and any grant system. Improper heat pump installation may also void the terms of insurance policies, leaving householders with no cover if there's a related incident.

	CHAPTER 4	
24	Do you agree with the criteria for the administration of support for low carbon heating technologies? Yes No If no, please give reasons for your answer.	**Yes** - we support the 6 criteria. To be informed by lessons from other UK and RoI schemes.
25	Do you agree with the approach to offer support by providing a one-off capital grant? Yes No If no, please give reasons for your answer.	Yes. We support a one-off, up front capital grant approach, recognising that this will help to minimise cashflow issues with applicants and reduce the premium of high cost measures such as heat pumps. Experience in Great Britain and Republic of Ireland have highlighted the value of heating suppliers applying for grants to reduce administrative burden on applicants. Lessons on minimising risk of misuse are also to be learnt from forerunners. We would welcome inclusion of grant funding to cover household connection costs to low carbon heat network schemes as they have significant potential to reduce emissions. Connection charges might otherwise pose a barrier to lower income homes.
26	Which option do you think should be the approach to the level of financial support for eligible technologies? Please tick <u>one</u> box only. Option 1 – apply the same amount of funding for all eligible technologies. Option 2 – apply different amounts of funding per eligible technology type. Option 3 – other (please specify). Please give reasons for your answer.	**Option 1** – we support an approach that would allow an element of choice to reflect specific case and market conditions.
27	Are there any cost barriers beyond the cost of the technology that you feel may impact on the successful rollout of low carbon heating technology support? Yes No	**Yes** – Even with grant assistance, the initial installation costs for low-carbon heating solutions like heat pumps can be a barrier for many homeowners. While grants can offset some costs, upfront expenses for equipment, installation, and necessary home retrofits (like insulation improvements) often remain high. This can present a barrier, especially for households without immediate access to funds.

	Please give reasons for your answer.	The high cost of electricity compared to gas in Northern Ireland poses a significant barrier to low-carbon heating adoption and risks an increase in home heating costs and fuel poverty. In addition, the cost of commissioning works, necessary permissions, project and quality management support, all of which are critical and are potentially costly. Risk of their omission could impact negatively on the scheme. The provision of local one stop shops that could provide impartial advice and help to streamline the application and implementation process could help to minimise additional costs and effort by householders.
28	Do you have suggestions as to how the department can ensure financial support delivers the best possible value for money? Yes No Please give reasons for your answer.	**Yes** – through use of frameworks to control costs quoted and use of appropriate metrics to track energy efficiency savings and value for money: https://nationalretrofithub.org.uk/wp-content/uploads/2024/07/NRH-EPC-Reform-Retrofit-at-Scale.pdf As noted in Q1, the provision of grants for low carbon heating at the household level therefore needs careful coordination with DFE's plans (if any) to support and incentivise district heating in urban areas like Belfast. If the heat zoning approach currently being trialled in England were adopted in NI, a situation could arise whereby grants are provided to households to install ASHP in areas that are subsequently included in a heat zone. This could be a wasteful use of public resources.
	CHAPTER 5	
29	Is the supply chain and manufacturing base in NI well established to cope with demand for installations of low carbon heating technologies if demand increases? Yes No Please give reasons for your answer	**No** – Belfast City Council convenes the Belfast Retrofit Hub with members advising across the board that they anticipate 'poaching' of already limited installers by other UK and RoI regions where grant programmes and pipelines of retrofit programmes already exist. Construction supply companies highlighted that low carbon heating systems are typically 3-5 times as expensive as fossil fuel and cause credit issues for both contractors and suppliers. Belfast City Council has identified a lack of information around the supply chain for solar PV and is currently exploring the risks that this might pose to a series of proposed PV programmes. By providing clear market signals and supporting workforce development, the scheme can encourage sustained investment in skills, helping to secure a skilled and resilient supply chain for the future.
30	Is there any evidence of after-care delays with repairs and maintenance of heat pumps due to supply chain shortages and delays that may cause someone to be without heating? Yes No	Uncertain – very limited data is available on customer satisfaction with heat pump installation and maintenance in NI.

	If yes, please provide evidence.	
31	How can growth of the skills base within the heat pump industry be supported by the private sector and government to complement any support for low carbon heating in a) the short – medium term (up to 10 years) and b) the long term (over 10 years)? Please provide any evidence you may have.	Considerable work is being carried out across UK regions and the Republic of Ireland through the Alliance of Nations hosted by the UK National Retrofit Hub. Their series of 6 working groups is carrying out in depth work on: • Workforce growth and skills development • Warm, health, net zero • Supply chain, products and solutions • Finance • Delivery approaches • Driving uptake As convenor of Belfast Retrofit Hub and in the absence of an NI regional body, Belfast City Council is currently actively representing NI in this alliance and would welcome engagement with government departments. A lack of retrofit related skills has been identified as a significant issue by Belfast Retrofit Hub. Discussions with Galway City Council and Welsh Govt highlight that a lack of skills and materials supply are major barriers and can severely inhibit the implementation of retrofit grants programme. Third level colleges offering retrofit related courses report low levels of uptake as qualifications are currently not essential and they already struggle with staff shortages. Making specified qualifications essential for contract award would support employer engagement and investment. Government and industry could co-fund training grants or subsidies to reduce the financial burden for installers transitioning to low-carbon systems. Manufacturers can play a critical role by offering accessible, high-quality training programs that are also available in rural or remote areas. The government's commitment to a stable policy for low-carbon heating systems is crucial for industry confidence. A predictable regulatory environment and clear future goals will encourage businesses to invest in training and development, knowing that their skills will remain relevant and in demand. Establishing and promoting a standardised curriculum for low-carbon heating installations through partnerships with vocational training organisations and industry bodies will help ensure that all trainees acquire the necessary competencies. A report by Orlaith McGinley University of Galway – explores availability and uptake of retrofit related training in RoI.

32	Is there an adequate amount of heat pump installers within NI to cope with demand for installations as well as aftercare and repairs/maintenance should demand for heat pumps increase in the short – medium term? Yes No Please give reasons for your answer	In depth discussions with Belfast Retrofit Hub members suggests that NI currently has limited numbers of qualified and experienced heat pump installers with those who are qualified already engaged in long term pipelines of significant work programmes in GB and the RoI. Technical college members report very limited take up of heat pump training courses to date but anticipate significant uptake in the event of grant funding being made available.
33	What actions can be taken to support the scaling and growth of the low carbon industry, particularly installers, to meet future demand projections of heat pump deployment targets? Please give reasons for your answer	Hub members indicate that shortages of staffing in the construction industry mean that the capacity for rapid expansion will be limited. Issues include ageing workforce, relatively low wages, impact of Covid 19 on the construction industry, perception of male-only, low skilled industry with poor wages and limited scope for growth. Suggestions have included programmes targeting secondary schools, increasing the number of women in the workforce and literacy support.