



North Tyneside Council

Economic Prosperity Sub Committee (Extraordinary Meeting)

Monday, 2 May 2022

Tuesday, 10 May 2022 in Room 4.02 - Quadrant, The Silverlink North, Cobalt Business Park, North Tyneside, NE27 0BY commencing at **5.30 pm**.

Agenda Item	Page
1. Apologies for Absence	
To receive apologies for absence from the meeting.	
2. Appointment of Substitute Members	
To be notified of the appointment of any Substitute Members.	
3. Declarations of Interest and Dispensations	
You are invited to declare any registerable and/or nonregisterable interests in matters appearing on the agenda, and the nature of that interest.	
You are also invited to disclose any dispensation in relation to any registerable interests that have been granted to you in respect of any matters appearing on the agenda.	
You are also requested to complete the Declarations of Interests card available at the meeting and return it to the Democratic Services Officer before leaving the meeting.	
4. Green Skills Sub Group	3 - 22
To consider the report of the Green Skills Sub Group.	

Circulation overleaf ...

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Members of the Economic Prosperity Sub Committee

Councillor Liam Bones
Councillor John Harrison
Councillor Hannah Johnson
Councillor Willie Samuel
Councillor George Westwater

Councillor Margaret Hall
Councillor Janet Hunter
Councillor Bruce Pickard
Councillor Joan Walker (Deputy Chair)
Councillor Matt Wilson (Chair)

Meeting: Economic Prosperity Sub-Committee

Date: 10 May 2022

Title: Green Skills Sub Group

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Service: Law and Governance

Wards affected: All

1. Purpose of Report

- 1.1 To present the findings, conclusions and recommendations of the Green Skills Sub Group and to seek the sub-committee's approval for its submission to Cabinet.

2. Recommendation

- 2.1 The sub-committee is recommended to approve the report of the Green Skills Sub-Group for submission to Cabinet at its meeting on 23 May 2022.

3. Details

- 3.1 In November 2022 the Sub-Committee appointed the Green Skills Sub Group to examine the Council's approach to adapting to a green industrial revolution and ensuring people have the right skills for the future green jobs. The Sub Group was set the following remit, to:
 - a) consider the steps required to ensure residential, public, commercial and industrial buildings in the borough have the lowest possible carbon emissions to support the Council's 2030 net zero ambition;
 - b) analyse the skills, qualifications and accreditations that will need to be gained by the local workforce so that:
 - i. they are equipped to deliver energy efficient buildings;
 - ii. the need for imported skills is avoided; and
 - iii. the borough benefits from the low carbon economic growth;
 - c) identify sources of funding that could be accessed for skills and training from a variety of sources to support the local economy; and
 - d) make recommendations to the Elected Mayor and Cabinet on how the Council and its partners might stimulate the local training market so that the required skills, qualifications and accreditations can be taught to our residents by North Tyneside based providers.
- 3.2 Since then the Sub Group has held a series of evidence gathering meetings with officers and key stakeholders during January and February 2022 and also had regard to a wealth

of policy documents and research papers which have been published in relation to decarbonising the built environment and the skills and jobs that will be required to deliver it. The Sub Group have reviewed the evidence received and formulated their findings, conclusions and recommendations set out in the report attached as Appendix 1. A draft report has been shared with key officers and all those stakeholders who were involved in the study. The final report takes into account the comments and feedback received during this consultation.

- 3.3 In accordance with the Constitution, the Sub Group is required to present its report and any recommendations to the Sub-Committee for consideration and to either approve, amend or reject it for submission to the Overview, Scrutiny and Policy Development Committee and Cabinet.
- 3.4 The Chair of the Overview, Scrutiny and Policy Development Committee, Councillor Janet Hunter, has waived the requirement that the report be submitted to and approved by the Committee because its next scheduled meeting is not until 13 June 2022. It is hoped that by presenting the report and recommendations to Cabinet at the earliest opportunity this will assist the Cabinet in reviewing and revising its Climate Emergency Action Plan during the summer.

4. Background Information

The following documents have been used in the compilation of this report and may be inspected at the offices of the author:

- Green Skills Sub Group Scope & Work Programme
- North Tyneside Council Constitution

Green Skills for Retrofit Jobs



April 2022

1. Introduction

- 1.1 The Council's Economic Prosperity Sub-Committee is a scrutiny committee. It has no decision making powers but it examines matters relating to the economy, transport and tourism in North Tyneside and makes recommendations to the Elected Mayor and her Cabinet to help shape the Council's future policies, plans and strategies.
- 1.2 In determining its work programme for 2021/22 the sub-committee agreed to appoint a sub-group to examine the Council's approach to adapting to a green industrial revolution and ensuring people have the right skills for the future green jobs.
- 1.3 At the same time the Chair of the Sub-Committee, Councillor Matt Wilson, as part of the Executive Leadership Academy, had studied the steps required to ensure buildings in the borough have the lowest possible carbon emissions and how the local workforce might be equipped with the required skills, qualifications and accreditations to upgrade building insulation and ventilation and switch energy source from gas to green electricity, via a process known as 'retrofitting'. In response to this work the Elected Mayor, Norma Redfearn, asked Councillor Wilson to work with the Sub-Committee, in conjunction with the Children, Education and Skills Sub-Committee, to do some further policy development work on this area to explore what opportunities are available and what the Council might do to support businesses and residents to take them.
- 1.3 In response the sub-committee appointed a sub group, made up of members of the Economic Prosperity Sub-Committee, Environment Sub Committee and Children, Education and Skills Sub-Committee. The following members agreed to serve on the sub group:
Councillor Matt Wilson (Lead)
Councillor Brian Burdis
Councillor Bruce Pickard
Councillor Margaret Hall
Councillor Trish Brady
Councillor Liam Bones
Councillor Maureen Madden

2. Objectives and Key Lines of Enquiry

2.1 The Big Why:

At the outset of this sub group there were three main drivers;

- To stimulate and support new economic activity that would be beneficial in terms of the quality of jobs available and the overall prosperity of the borough.
- To make a difference in terms of reducing overall greenhouse gas emissions in North Tyneside.
- To respond to the growing sense of alarm around energy costs which are affecting both households and businesses.

As the work of the sub group progressed the third item on the list above was brought into ever-greater relief. It has quickly risen up the agenda nationally as a matter of critical importance.

- 2.2 In setting the objectives of the sub group, members were mindful that the transition to a low carbon economy will be an enormous and complex task and so they agreed to focus attention on one element of the agenda, namely the retrofitting of the building stock in North Tyneside. Retrofit is the process of upgrading existing homes and buildings to make them more energy efficient. This usually involves improving the fabric of the building through installing insulation, upgrading the building services and introducing renewable energy and heat sources such as solar panels and heat pumps.
- 2.3 Accordingly, the sub-group were asked to:
- a) consider the steps required to ensure residential, public, commercial and industrial buildings in the borough have the lowest possible carbon emissions to support the Council's 2030 net zero ambition;
 - b) analyse the skills, qualifications and accreditations that will need to be gained by the local workforce so that:
 - i. they are equipped to deliver energy efficient buildings;
 - ii. the need for imported skills is avoided; and
 - iii. the borough benefits from the low carbon economic growth;
 - c) identify sources of funding that could be accessed for skills and training from a variety of sources to support the local economy; and
 - d) make recommendations to the Elected Mayor and Cabinet on how the Council and its partners might stimulate the local training market so that the required skills, qualifications and accreditations can be taught to our residents by North Tyneside based providers.

3. Methodology

- 3.1 The sub group began by formulating a work programme in which it identified detailed key lines of enquiry and relevant sources of evidence. The sub group then held a series of evidence gathering meetings with officers and key stakeholders during January and February 2022 (listed in Appendix A). The sub group have also had regard to a wealth of policy documents and research papers which have been published in relation to decarbonising the built environment and the skills and jobs that will be required to deliver it. These are also listed in Appendix A together with hyperlinks to the documents for reference purposes.

4. What factors should be considered when seeking to cut greenhouse gas emissions from residential, public, commercial and industrial buildings in the borough to support the Council's 2030 net zero ambition?

- 4.1 National. In 2019, the UK Government set a target of achieving net zero emissions by 2050. In July 2019 the Council, like many other local authorities, agreed to declare a climate emergency, to seek to halve the Authority's and the Borough's carbon footprint by 2023 and commit that itself and the Borough will be carbon neutral by 2050 in line with the national target. Since then, and in acknowledging the gravity and urgency of the climate emergency, the Council agreed to publish an action plan of the steps it will take and the national investment it will seek to make North Tyneside carbon net-zero by the earlier date of 2030.

4.2 Local. In September 2020 the Council's Climate Emergency Board formulated a range of policy proposals, aimed at achieving the Council's carbon reduction targets. An action plan contained a series of strategic projects to decarbonise buildings, heating and electricity. These projects provide an indication of the scale of the retrofit challenge, as they included

- a) the large scale roll out of an ambitious housing stock retrofit programme across the Council's 14,000 council houses;
- b) an acceleration of energy efficiency retrofit in the 90,000 owner occupied and private rented homes in North Tyneside;
- c) the promotion of industrial clusters to integrate and connect large industries within the Borough to deliver decarbonisation and energy savings; and
- d) the rollout of heat pumps in Council and wider public sector buildings across North Tyneside, including schools.

Note: The group heard that in North Tyneside, electrifying heat via heat pumps can achieve 88% reduction in CO2 by 2030; 91% by 2050.

4.3 Regional. Further evidence of the retrofit challenge has been produced for the North of Tyne Combined Authority¹ to support the preparation of a business plan for a large scale housing retrofit programme designed to reduce fuel poverty and carbon emissions. This work concluded that:

- a) local retrofit rates will need to ramp up quickly. To achieve net zero emissions by 2030 will require over 80,000 homes to be retrofitted per year by 2027; more than 10 times the current rate; and
- b) the cost of achieving the net zero emissions by 2030 will require an estimated £13bn in funding, beyond known current and forthcoming grant funding.

4.4 a) Sectoral - Housing. The sub group has also heard how other sectors are addressing retrofit. Registered Housing Providers such as Bernicia, who manage 1,000 properties in North Tyneside, are setting targets to improve energy efficiency and reduce carbon emissions in their homes. They estimate that the net zero ambition will require approximately £20,000 of investment per property.

b) Sectoral – Commercial & Industrial. Many large industrial and commercial premises in the borough are dated and inefficient. Others, such as The Quorum Business Park, whilst fairly modern, no longer satisfy today's higher standards. As corporate ESG (Environmental, Social and Governance) responsibilities become more important, businesses are now beginning to give consideration to retrofit options and how they might be funded.

The group found that both sectors described above were very positive towards working collaboratively with the Council to reduce overall emissions. There was a recognition that the issues are complex and the sharing of knowledge and learning is vital.

4.5 The Council has made a start and is making progress in reducing carbon emissions from its buildings:

¹ Building the evidence base for retrofit in the North of Tyne – Energy Saving Trust

- Energy efficient air source heat pumps are being installed at Hadrian Leisure Centre, Tynemouth Swimming Pool, The Lakeside Centre and Waves.
- Energy surveys are being undertaken of the Authority's buildings with a view to developing a Renewable Heat and Energy Plan and the Council's Estates Strategy will be reviewed and aligned to the aims and objectives of the Climate Emergency Plan.
- The retrofitting of the Council's 14,000 homes housing stock is starting from a strong position following the installation of solar PV and double glazing and provision has been included in the Capital Plan for high efficiency boilers, cavity wall insulation replacement and solar PV installation alongside roof replacements, supported with funding from the Green Homes Grant Local Authority Delivery (LAD) but the overall cost of retrofitting the housing stock is estimated to be £280m.

This work means the Council is leading by example and acting as a trailblazer in demonstrating the benefits of installing low carbon, energy efficient heating systems which may help persuade others to follow the Council's lead.

- 4.6 It is important that when the council embarks on and completes pathbreaking projects such as those listed above, detailed learning is shared widely with a range of stakeholders and interested parties. The development of some kind of Knowledge Bank containing case studies would be very helpful.
- 4.7 Property owners are facing a range of risks and challenges associated with retrofit including:
- a) uncertainties about the development of future technologies such as hydrogen and the risks of investment regret by adopting currently available solutions that are superseded by more efficient future systems;
 - b) avoiding additional repairs and maintenance burdens;
 - c) avoiding increased fuel poverty;
 - d) a lack of a supply chain and the skills required to deliver assessment, advice, design, installation and maintenance services; and
 - f) the national infrastructure required to support some new technologies
- 4.8 The Council will also face challenges in achieving its 2030 net zero ambition when national targets, schemes and funding frameworks are not synchronised because they are based on the 2050 target.

5. How should we understand the opportunities and the costs of a large scale retrofitting initiative?

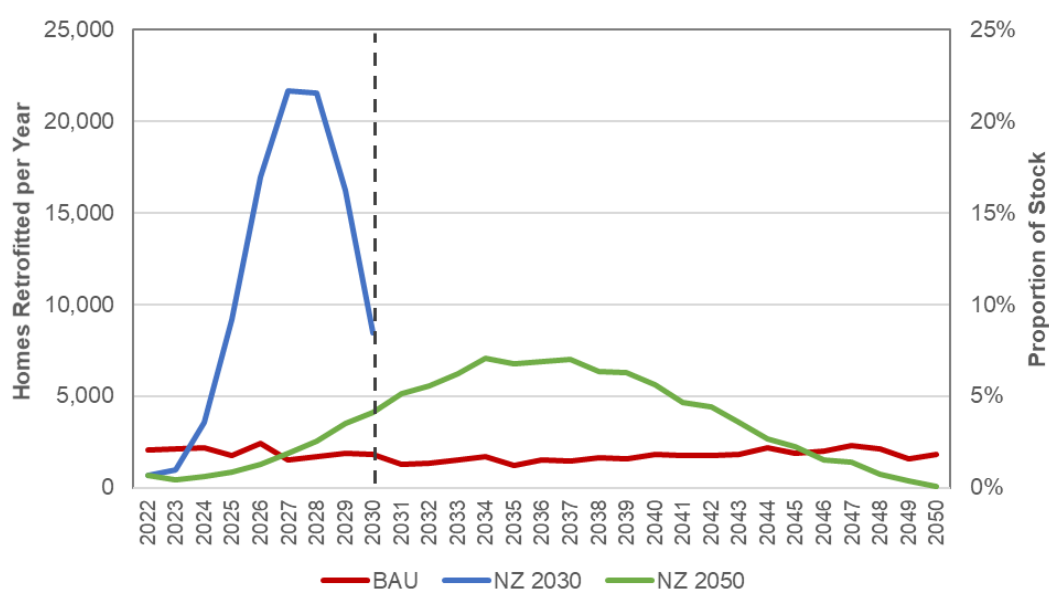
- 5.1 The low carbon economy is predicted to grow four times faster than the rest of the economy over the next decade and the transition to this green economy provides a real opportunity for driving the post-pandemic economic recovery. The Government forecasts that the policies and proposals for heat and buildings set out in its Net Zero Strategy will support up to 100,000 jobs in the middle of the 2020s and up to 175,000 in 2030 and attract additional public and private investment of approximately £200 billion. Notably, as the sub group was concluding its work the Chancellor, in his spring statement, announced a new zero VAT rating for a range of retrofit products such as solar panels, heat pumps and insulation.

- 5.2 Research undertaken for the North of Tyne Combined Authority indicates that a large scale housing retrofit programme in the area to reach Net Zero by 2050 has the potential to support between 1,500 and 3,500 FTEs in the retrofitting sector from 2022 up to 2030, and between 2,500 and 5,800 FTEs from 2030 to 2050. The scale of activity required to reach Net Zero by 2030 will require a markedly higher labour input over the period 2022-2030.
- 5.3 However, it is also true that the transition to a net zero economy and in particular the retrofitting of homes and buildings is often presented and perceived in terms of a significant cost to homeowners, landlords and other property owners. The sub group believe that it is important that the council carefully holds these two truths (opportunity and cost) in tension. The narrative around economic opportunity, in terms of stimulating new economic activity and increasing per worker productivity, appears underdeveloped.
- 5.3 One key challenge will therefore involve enabling 'Green Finance', both grants and loans, to flow into the borough, through a variety of routes. This is essential in order to pay capital investments to be made into building fabric that will deliver a positive return over the medium and long term in terms of energy cost savings.
- 5.4 With relation to the local economy and labour market retrofit therefore presents the borough with an opportunity to
- a. create new and better jobs within an inclusive economy that offers local people with a range of new and exciting career pathways;
 - b. transition people currently working in carbon intensive industries (such as gas engineers) into the low carbon sector through retraining;
 - c. attract millions of pounds of investment expected in low carbon technologies over the next decades.
- 5.5 In summary, the sub group are aware that over the years there have been many policy initiatives to improve the energy efficiency of homes but consider that there is now a new and real sense of urgency and momentum created by the energy crisis, the climate emergency and the national and local net zero targets.
- 6. What skills, qualifications and accreditations will need to be gained by the local workforce so that:**
- i. they are equipped to deliver energy efficient buildings;
 - ii. the need for imported skills is avoided; and
 - iii. the borough benefits from the low carbon economic growth?
- 6.1 In 2015 the government commissioned a review to identify and tackle the high level of failure present in domestic retrofit, and to determine a better process for the retrofit of energy efficiency and renewable energy measures. As a result of this review PAS 2035 was introduced to provide a set of standards and specifications for assessing domestic dwellings for energy retrofit and to provide a best practice framework for their implementation. The government has proposed to make compliance with PAS 2035 mandatory for all public funded projects.

- 6.2 PAS2035 has provided training organisations with the basis on which to develop and deliver new qualifications. Organisations like The Retrofit Academy CIC, a not for profit training company, have been set up to develop and deliver qualifications that equip people with the knowledge and skills to deliver retrofit excellence covering the different roles involved in the retrofit process. The Retrofit Academy have created and offered the following qualifications:
- Level 5: Diploma in Retrofit Coordination and Risk Management
 - Level 4: Award in Domestic Retrofit Assessment
 - Level 3: Certificate in Domestic Retrofit Advice
 - Level 2: Award in Understanding Domestic Retrofit
- These are all based on the PAS 2035 standards/specification for assessing domestic dwellings for energy retrofit.
- 6.3 The sub group spoke to David Pierpoint of the Retrofit Academy CIC, a recognised national expert, with experience of developing and delivering qualifications that equip people with the knowledge and skills to deliver retrofit excellence. He confirmed the scale of the retrofit challenge and the current lack of capacity and skills within the construction industry to deliver large scale retrofit programmes. He described how Retrofit Academy CIC had established the UK Retrofit Training Network to bring together local authorities, training providers, funding bodies, candidates and employers. Two pathfinder projects have been established with Essex and Devon County Councils. The schemes deliver the courses and qualifications developed by the Academy which are based on the PAS 2035 standards framework for energy retrofit measures and provides best practices for their implementation.
- 6.4 Tyne Coast College (TyneMet) were involved in the meeting with Retrofit Academy CIC and afterwards confirmed the following:
- “Tyne Coast college is committed to ensuring that our curriculum is forward thinking, and that knowledge, skills, Personal development, attitudes and behaviours are developed in consultation with, and to meet the needs of, students, employers, the community needs and stakeholders. One aspect of this is equipping our Construction and Engineering students with ‘Green’ skills in areas such as sustainability, renewables, and retrofitting. This additionally supports our commitment to North Tyneside Council’s ‘Net Zero targets’ and our dedication to working with the local council ‘Green Skills Subgroup’ to develop our innovative and ambitious ‘green curriculum’.”
- 6.5 Whilst many of the skills required for retrofit will be specific to the sector, the transition will require and support an array of skills not unique to retrofit. The NTCA² has identified three categories of skills relating to:
- a) professional services; in relation to retrofit advice, design, compliance, and monitoring and verification services; and
 - b) installation; such as air and ground source heat pumps, solar photovoltaic, insulation and energy efficient windows and doors.
 - c) project support; including marketing, customer service, estimation, procurement, contract management, quality management, commissioning, testing and performance monitoring;

² Developing a Delivery Framework for Climate Change Improvements Across Domestic and Non-Domestic Properties Across the North of Tyne Authority

- 6.6 The sub group supports the NTCA's commitment within its Skills Strategy 2021-23 to deliver a skills system which will equip the local workforce with the right skills to build an inclusive and competitive low carbon economy and to work with providers to consider the technical qualifications that will be required in curriculum planning and development. This includes a recognition of the requirement to train young people and create apprenticeships, T-levels and similar pathways, in order to enable access to the emerging technologies of the future.
- 6.7 There now needs to be a borough-wide retrofit skills assessment to identify in detail the skills needed and the phasing of training to meet expected demand across the area. Any assessment should:
- engage with local employers to assess and map existing demand and deliver training to match actual demand;
 - identify the different interventions required to deliver the breadth of skills required as set out in paragraph 5.4; and
 - include a monitoring and evaluation framework to capture learning.
- 6.8 The sub group also noted risks associated with creating new jobs in the retrofit sector. There is the possibility of displacement (the increase in low carbon economic activity being offset by reductions in economic activity in other sectors) and substitution (employers meeting the demand for increased housing retrofit activity by switching away from other areas of their work without increasing overall employment.) The sub group is also concerned about the sustainability of employment created by a retrofit programme and the extent to which skills obtained for this purpose could be transferrable to other parts of the construction sector in the longer term.
- 6.9 This concern has particular salience with respect to the pace at which retrofit takes place. A sudden rush to retrofit at scale may be needed from a Climate Emergency point of view, but could have unintended consequences in terms of producing a 'boom and bust' effect. This has been modelled by consultants working for NTCA, showing 2030 and 2050 scenarios. See below:



- 7. What sources of funding could be accessed for skills and training to support the local economy?**
- 7.1 Attracting 'Green Finance' into the borough will be critical. The sub group discovered various sources of funding and resources available to equip people with the skills required for retrofit. A portfolio of models is required, not a one-size-fits-all approach. Longevity of funding models is of key importance and private finance needs to be commercially attractive to investors i.e. a positive return-on-investment must be proven within a given time frame. Pilots, trials and demonstrator projects can be used to establish feasibility and grow the number of willing to invest in their properties, be they domestic or commercial.
- 7.2 The NTCA has allocated £2m within its Skills for Growth Fund for innovative proposals that equip people with the skills they need to capitalise on the growing employment opportunities in the Low Carbon and Renewable Energy Economy. Two projects have received funding:
- i) Geon Training Solutions Ltd have developed a project to address the skills shortage in the construction sector; in particular, green construction skills needed to deliver the domestic retrofit agenda. The objective is to increase local employment numbers and address the skills shortage through sustainable, meaningful employment opportunities tailored to individual learner needs, aptitudes and capabilities. Partnered with Re-Geon, Karbon Homes, Shaw Construction, HS Scaffolding, MGM Ltd, Utility Team and Ovington Boats. The programme consists of regulated and non-regulated qualifications in Domestic Retrofit & Environmental Sustainability in Construction. If approved they will begin delivery in May 2022;
 - ii) Newcastle University Group are to work with the retrofit supply chain to identify the skills required to install heat pumps, smart metres etc and formulate a curriculum to be shared with colleges to plug the skills gaps. This work will consider training standards to ensure there is quality and consistency. It will also consider non-accredited areas outside formal qualifications such as licenses to practice.
- 7.3 The NTCA has control of the £23m Adult Education Budget which to date has been targeted at entry level courses and Level 2 employability skills in relation to the construction sector and it is acknowledged that there will need to be a shift in emphasis towards low carbon, green technologies.
- 7.4 Government funded Skills Boot Camps delivered as part of the Lifetime Skills Guarantee, offer free, flexible courses of up to 16 weeks aimed at giving people the opportunity to build up sector-specific skills and fast-track to an interview with a local employer. The NTCA has submitted a bid for £5m from the Government to deliver a Skills Boot Camp programme to include green construction skills and recognise retrofit.

- 7.5 European Social Funding for projects to provide training opportunities for unemployed and economically inactive people is coming to an end. It is hoped that the new UK Shared Prosperity Fund may go some way to plugging this gap. Details of UKSPF were not available at the time the Sub Group was considering evidence. Some details have subsequently been released by the Government revealing that funding is expected to align with the 12 'missions' contained within the recent 'Levelling Up' white paper. North of Tyne Combined Authority (NTCA) have been allocated £51.2m to invest over three years which is significantly lower than the equivalent EU funding allocation. NTCA are developing a Local Investment Plan to be submitted to Government by 1 August 2022. The Plan will take account of the 3 themes set out by Government: communities and place, local businesses and people and skills.
- 7.6 Funding for apprenticeships and the Apprenticeship Levy. There are however currently no apprenticeships directly related to retrofit or the PAS2035 standards. Responsibility for the establishment of these programmes rests with major employers to work in conjunction with the Institute of Apprenticeships to create new apprenticeships standards as demand emerges. The sub group heard of inertia within the construction industry to engage with energy efficiency and decarbonisation programmes. Similarly, the process of creating new apprenticeship programmes takes a long time with the development of standards for the low carbon sector only just beginning.
- 7.7 The Government has committed significant additional funding to the roll out of T Levels. T Levels are two-year courses that can be studied by 16-18 year olds and equivalent to 3 A Levels. They are technical-based qualifications developed in collaboration with employers and businesses so that the content meets the needs of industry and prepares students for work. T Levels will be offered in relation to engineering for construction, design, surveying and planning for construction and onsite construction.
- 7.8 The Retrofit Academy reported that in its experience around 60% of its learners were self-funded and 40% either part or fully funded by a range of government sources including Adult Education Budgets (Manchester), DfE Innovation Fund (West Midlands) and the Community Renewal Fund (Devon & Essex). Offering a financial incentive to professionals looking to upskill is likely to help offset the risk to those professionals of shifting focus towards a newly emerging sector. This could be in the form of loan, grant, or a mix.
- 7.10 The sub group also acknowledged the range of activities that are engaged in raising aspirations, changing perceptions and convincing young people that there are opportunities in the low carbon sector to build a successful career in the future. Whilst there is little reference to the impact of the climate emergency within the National Curriculum, schools in North Tyneside do address the topic with young people through a wide range of extra curricular activities. Careers advice and guidance within schools relating to retrofit is currently not well developed and needs work.
- 7.11 There have been a range of Government, LEP and NTCA interventions to lever in private sector investment, but this is reliant on confidence within the sector. Uncertainties regarding future funding for retrofit programmes such as the Green Homes Grant have not helped. A portfolio of scalable, sustainable funding models for retrofit will stimulate demand and offer confidence to the

construction sector, which in turn will lead to greater investment in training people in the skills required. The NTCA³ have shortlisted funding models for a large scale retrofit programme but these models are yet to be fully evaluated.

7.12 At the domestic level a number of Green Finance initiatives have been proposed to NTCA and could therefore present options for North Tyneside:

Secured Loans	<ul style="list-style-type: none"> • Secured loan allows homeowners to borrow money while using property as 'security' • May lead to better mortgage terms as house value increases with energy efficiency and because borrowers are less likely to default on their loans with lower energy bills
Demand Aggregation Finance (DAF)	<ul style="list-style-type: none"> • Online service, coupled with new financial products, that establishes 'critical mass' for a retrofit technology (eg heat pumps) in a local area • Lowers up-front and financing costs for property owners that register interest in scheme
Pay as you save	<ul style="list-style-type: none"> • Utility company pays for upfront cost of a distributed energy solution and recovers costs on the monthly bill with charge less than savings • Customer sees positive cash flow at start of the operation, and once the utility recovers its costs, the equipment belongs to the customer

8. A North Tyneside Retrofit Strategy

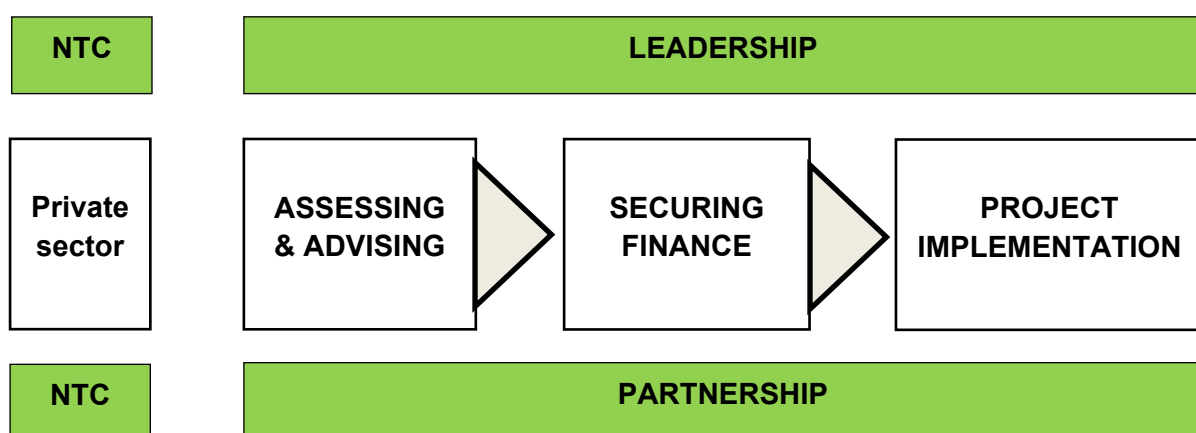
8.1 Offering a simple overview the retrofitting process is important in helping stakeholders to see the sequence of events required to develop and complete each individual project, whether domestic or commercial. The process can be seen as a chain linking 3 key elements:

- a) Assessing and advising. This is the design end of the process. Retrofit requires a set of assessment skills and qualifications to specify in detail, with costings, the appropriate works within any specific building. The skills are currently lacking in the borough and the wider area so training stimulus needed. Trust is vital, the advice people require is highly technical, specific and detailed with estimated costs that are realistic. An NTC approved list of advisors is needed. PAS2035 is an essential qualification.
- b) Securing Finance, which requires a range of financial products, for example, Homeowners may re-mortgage with a green mortgage product releasing equity to pay for work, thereby adding capital value to their home and also reducing monthly cost of energy. Grant funding could be offered towards pilot schemes that help to illuminate the costs, benefits and project delivery challenges. This may be best aimed at commercial projects and higher volume domestic work e.g. Housing Associations.
- c) Implementing the work on site. Retrofit requires a set of technical skills and qualifications to ultimately deliver on site whatever improvements

³ Building the evidence base for retrofit in the North of Tyne – Energy Savings Trust

have been specified at the assess & advise stage. These skills are currently lacking in the borough and the wider area so training stimulus needed. Quality is essential, the highest standards must be achieved. Poor work risk reputational damage which could slow down progress, as was shown in previous poor quality cavity wall insulation schemes, many of which failed. Again, an NTC approved list of technical providers is needed. Projects should be followed up with case studies and impact evaluations.

- 8.2 The sub group gave consideration as to how the Council must intervene to affect the prevailing market dynamics so that each stage of the retrofitting chain is in place and ready to hand on to the next. The model below shows that whilst the 3 main elements within the retrofitting process are delivered by the private sector*, the market is currently very fragile and requires the support of the council to ensure it functions effectively:



*Note: The term 'Private sector' is used here loosely. For example, in Greater Manchester homeowners can obtain specialist retrofitting assessment and advice from People-Powered Retrofit, which is a Co-Operative enterprise.

8.3 Leadership

It was clear from the evidence submitted by The Retrofit Academy that the Council has a key leadership role to play in stimulating the local retrofit market in North Tyneside. In order to stimulate demand for retrofit activity, a communications strategy should be developed to create and maintain a sense of urgency regarding the climate emergency and promote the opportunities and benefits of retrofitting homes and buildings, including cost savings in the light of energy price rises.

8.3 Partnership

At such an early stage it is not sufficient to hope that the local retrofitting market will self-develop according to an 'invisible hand'. Potential points of failure need to be anticipated which requires a 360 degree view. This will only be achieved through a co-ordinated approach working in collaboration with training providers, funding bodies, employers and local communities. The Climate Emergency Partnership Board will be key, if retrofit can be properly established as a Working Group within it. See below.

9. A North Tyneside Retrofit Partnership

- 9.1 The Authority cannot deliver this strategy alone. It will require co-ordinated action from a diverse range of stakeholders including the private sector, funding agencies, training providers, and communities too.
- 9.2 The sub group found a desire from the private sector to advance more quickly against the carbon reduction goals and a recognition that retrofitting their buildings is an important part of this. For example, the operators of Quorum Business Park, Shelbourne Assets, are keen to work collaboratively with tenants, landlords and businesses on the Park to identify retrofit options and solutions. Whilst businesses located at Quorum have experience on how to make the Park more sustainable they do not have the knowledge or expertise to deliver net zero, particularly with reference to the fossil fuel consumption within existing buildings. They are therefore keen to collaborate with others in taking a lead on retrofit and may be willing to lead by example in contributing towards the delivering the Council's net zero ambition.
- 9.3 The sub group also heard from registered housing providers who would consider joining a net zero group.
- 9.4 It is suggested that an external partnership board be established. An aspirational retrofit engagement event could be used to test levels of interest and secure involvement. This could then be followed by a more detail oriented gathering of stakeholders to determine the terms of reference. The Board could have 2 sub-groups:
- Commercial/industrial property retrofit
 - Domestic property retrofit

10. A North Tyneside Retrofit Academy

- 10.1 To ensure that the North Tyneside economy takes full advantage of the opportunities presented by retrofit and that local people benefit from the jobs created, it will be necessary to create a local pipeline of training for the following groups:
- a) providing young people at school, during further education and apprenticeships with the aspirations, basic skills, technical skills and career pathways to work in the retrofit sector;
 - b) upskilling those already working in construction sector and related trades and professions; and
 - c) re-skilling those moving into this area from other sectors.
- 10.2 The sub group believes there is an opportunity for North Tyneside to become a leader in the delivery of retrofit training regionally. The Retrofit Academy has demonstrated in places like Essex and Devon that it is possible to establish local partnerships, secure funding, and stimulate demand to deliver PAS2035 based qualifications through local retrofit academies. The NTCA have also taken a lead locally in delivering retrofit training through its Skills for Growth Fund.
- 10.3 The sub group concludes that the Council ought to commission a suitably qualified education/training institution to establish a Retrofit Academy in North

Tyneside to deliver PAS2035 compliant qualifications, according to the national Quality Assurance standards.

11. Recommendations

The Cabinet is recommended to consider:

- 11.1 Development a Retrofit Strategy to stimulate the local retrofit market, including a phased approach to:
 - a) retrofitting of the Council's 14,000 council houses
 - b) acceleration of energy efficiency retrofit in the 90,000 private homes
 - c) development of industrial/commercial retrofit clusters
- 11.2 Integrating the above as a key area of focus within its existing Climate Emergency Action Plan.
- 11.3 Establish the Climate Emergency Partnership Board. Within this establish two retrofitting working groups, one focused on industrial/commercial property, the other on residential property. Membership of the groups should be extended to significant property owners in the borough who share our ambition to lower the carbon footprint of their buildings and are committed to sharing best practice.
- 11.4 Develop a communications strategy to stimulate demand by creating and maintaining a sense of urgency regarding the twin benefits of energy efficiency and carbon reduction. Promote the opportunities and benefits of retrofitting homes and buildings, including cost savings in the light of energy price rises.
- 11.5 Develop a set of scenarios (fast, medium, slow) for the retrofitting of various building types under various ownership. Consider undertaking this work in concert with colleagues at NTCA.
- 11.6 Develop a Knowledge Bank for the sharing of locally relevant retrofitting information, evaluation and case studies.
- 11.7 Ensure that the relevant officers take up the challenge of enabling 'Green Finance', both grants and loans, to flow into the borough, through a variety of routes.
- 11.8 Increase the number of PAS2035 qualified professionals in North Tyneside by commissioning a Retrofit Academy in North Tyneside for the delivery of PAS2035 qualifications. Recognise that this is likely to require the offer of some kind of financial incentive to professionals looking to upskill, to mitigate the risk to those professionals of shifting focus towards a newly emerging sector.

- 11.9 Commission pilots, trials and demonstrator projects that can be used to establish feasibility and grow the number of willing to invest in their properties, be they domestic or commercial.
- 11.10 Work closely with NTCA on its retrofitting-related workstreams, to ensure that North Tyneside is an early adopter of any programmes to upskill in green construction skills and to accelerate the pace of retrofitting of local property.

Sources of Evidence

The following background documents have been considered in the course of the sub group's investigation:

[North Tyneside Climate Emergency Action Plan](#)
[UK Green Building Council](#)
[Energy Efficiency Infrastructure Group](#)
[National Energy Action](#)
[North Tyneside General Hospital](#)
[BREEAM - Sustainability Assessment Method](#)
[Green Homes Grant Local Authority Delivery scheme, Phase 2: funding allocated to Local Energy Hubs - GOV.UK \(www.gov.uk\)](#)
[NTCA Green New Deal Fund](#)
[Retrofit Academy](#)
[Salix Finance](#)
[Local Climate Bonds](#)
[Financing energy efficient buildings: the path to retrofit at scale](#)
[Green Homes Grant Local Authority Delivery Scheme](#)
[Skills for Jobs White Paper](#)
[Government Green Jobs Taskforce](#)
[CBI – Skills and Training for the Green Economy](#)
[LGA – Local Green Jobs](#)
[Skills for a Green Economy](#)
[NTCA Green Growth Skills](#)
[NTCA Strategic Skills Plan](#)
[Green Jobs Barometer - PwC UK](#)
[Place Based Climate Action Network](#)
[Microgeneration Certification Scheme](#)
[TrustMark & The Delivery of PAS 2035](#)
[Net Zero in the North East of England: regional transition impacts](#)
[Building Skills for Net Zero - CITB](#)
[Retrofit Academy CIC](#)
[GreenerSussex](#)

The sub group would like to place on record its thanks and appreciation to the following people for agreeing to meet with the sub group to discuss and consider the skills required to retrofit the building stock in North Tyneside:

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 Paul Nelson, Environmental Sustainability Manager
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 Wayne Stark, Operational Manager
 Iain Betham, Senior Manager: Strategic Investment & Property
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 Robert Peach, Housing Strategy
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