

Retrofit Leeds homes with high-quality insulation and heat pumps: a plan and call to action!

Preface and summary

This couldn't be more urgent!

- **The climate and ecological breakdown is so severe and the threat to our shared future is so real that we must act now - we cannot wait.**
- **Leeds TUC is calling all union members to take immediate action to secure our future, our jobs and a sustainable future for our children.**
- **Our most important and urgent action is to halt the flow of carbon dioxide into the atmosphere.**
- **This means radical changes to the way we use energy for work, travel and to heat our homes.**

What are we doing?

- **Leeds TUC is calling on all union members to support and campaign for a huge investment in home retrofitting, to high standards of insulation and with space and water heating mainly from heat pumps using renewably produced electricity. The scheme should be coordinated by Leeds City Council, in partnership with unions, practitioners, community groups and local training providers such as Leeds College of Building.**
- **Leeds TUC has produced this document describing how the above proposals could work and why we believe they are to be preferred to current industry proposals to use hydrogen as a domestic fuel, and the development of carbon capture and storage linked to this.**
- **We do not believe the hydrogen option can produce the well paid secure jobs that we are crying out for in this double crisis of climate emergency and soaring unemployment due to COVID. We need an alternative that can be implemented rapidly, and can effectively and drastically *reduce energy***

***demand* to ensure a long term carbon neutral future for our families whilst saving householders money and making our homes more comfortable now.**

- **All union members and jobseekers must demand the training or retraining necessary to equip them for the new, sustainable economy that we must build, with an urgent plan for the investment and the policies needed to get workers employed where they are needed - in retrofit, sustainable building and transport, genuinely renewable energy and similar green projects.**
- **In setting out a plan for Leeds, our hope is to offer a model that will be taken up by other towns, cities and regions, providing a basis for collaboration between local authorities and a common focus for trade union and community-based campaigners.**

What you can do

- **Contact your local union representative and arrange urgent meetings to discuss this document and what you can do to support its proposals**
- **Read up on the facts so you have an informed argument when presenting your case to union leaders. References at the end of this document may be a useful starting point.**
- **Join local and regional campaigns for a just transition to real, sustainable, well-paid jobs that will ensure an equitable future for all.**
- **Take a motion to your branch asking for the adoption of a policy of job-creation through mass retrofitting of homes with insulation and heat pumps, with the funding and training needed to make this an urgent reality**

(The model motion at the end of the document sets out some more specific actions and demands that you could include in your motion).

Introduction - Why do we need an urgent programme for retrofitting homes?

- **Urgency of climate emergency**

Limiting global warming to 1.5 °C above pre-industrial levels would require global greenhouse-gas emissions to be halved by 2030 [1]. But emissions are still rising, and on current trajectories a more likely scenario is a temperature rise of somewhere between 2.4 and 4 degrees, potentially exposing literally billions of people to life-threatening temperatures, extreme weather events, food and water shortages, disease, loss of livelihoods, mass displacement and war.

The UK government has set a target of net zero CO2 emissions by 2050, but we know this is too little too late: the Intergovernmental Panel on Climate Change (IPCC) estimated in 2018 that another 10 years at the current rate of global emissions was likely (ie with a probability of 66%) to commit the world to over 1.5 degrees of warming [2] Although estimates vary as to the amount of carbon we can still burn without passing that threshold, it is beyond doubt that the deepest cuts need to happen within years rather than decades - and that these cuts must come mainly from the “developed” countries which account for the largest share of emissions. In light of these facts, Leeds City Council has committed to cutting the city’s carbon emissions by around 55% by 2025 and to net zero by 2030 [3].

Heating and hot water for buildings accounts for around 20% of UK greenhouse gas emissions [4], and the necessary switch to renewable electricity also depends on significant reductions in energy demand. We therefore argue that the only way to eliminate these emissions - within the necessary timescale and without sacrificing comfort - is to retrofit almost all homes to an excellent standard of energy-efficiency, and install heat pumps (electrically powered) as the primary method for space and water heating. We believe that Leeds City Council must lead the way, setting the pace for a rapid roll-out of such a scheme across the country.

- **Jobs post-COVID - a “green recovery”**

TUC Yorkshire and the Humber [5] has highlighted the high risk of mass unemployment in the region resulting from the COVID crisis, potentially affecting many of the 775,600 workers who have needed support from the government job retention or self-employed income support schemes, as well as new entrants to the labour market, and those whose sectors are hit by the general downturn in the economy. In particular, 18% of young workers in the region are likely to face unemployment.

Although Leeds itself has relatively few workers employed in carbon-intensive sectors, around 28 000 workers in the North of England as a whole will need to be redeployed as part of a transition away from fossil fuels, pointing to an urgent need for reskilling and redeployment into jobs which help decarbonise the economy. Research from Oxford University [6] has shown that investment in transitioning to a net zero carbon economy can lead to higher levels of job creation than traditional stimulus packages. However, amongst its many positive recommendations for creating “green” jobs, the regional TUC’s discussion of housing is least developed, and makes no specific mention of the emergency-level, wide-scale deep-retrofit programme needed to achieve net zero carbon in our housing stock.

Housing has seen a perfect storm of high rents and atrocious conditions in the private rented sector, cuts in Housing Benefit, sell-offs of council homes and unaffordable mortgages. High energy costs eat further into wage and benefits incomes which have dropped significantly in real value, leaving many thousands unable to heat their homes, with severe consequences for both physical and mental health. An urgent programme of deep retrofitting would not only create thousands of decent skilled jobs, but also deliver immediate social benefits whilst very significantly aiding the fight to avoid catastrophic global heating.

Why super-insulation and heat pumps?

- **Net zero can’t be achieved without steeply reducing energy demand**

There can be no realistic pathway to zero carbon which relies solely on changes in the way we produce energy. Continuing to extract and burn carbon-based fuels in any form - *with or without carbon capture* [7,8] - is not compatible with preventing dangerous global heating. On the other hand, converting all domestic heating and hot water to electricity from renewable sources - or even to “clean” hydrogen (see below) - is viable only if demand is significantly reduced. This need not mean that we miss out on comfort; in fact, if homes are properly adapted we can make them warmer (and cheaper to run) whilst using far less energy. Insulating a home to a very high standard can reduce the need for energy input by around 80%, meaning that heat pumps using renewably produced electricity will provide adequate heat with a minimal carbon cost.

- **Drastically reducing the cost of keeping warm - need for heating minimal, huge benefits for physical and mental health**

A reduction in energy requirement means a comparable reduction in bills. According to the latest estimates an appalling 13.5% of Leeds residents live in homes that are hard to heat due to structural features *and* are unable to pay for this without limiting food and other essentials [9]. High energy costs are a significant financial stress on most low-to-medium income households. Cold homes have wide-ranging effects, including higher incidence of respiratory and cardio-vascular illness, significantly greater incidence of anxiety and depression in both adults and children, and higher levels of asthma, respiratory infections and slower physical and cognitive development in children [10].

An excellent standard of insulation can save hundreds of pounds a year in bills, and heat pumps are expected to have lower running costs once installed, compared with a gas or hydrogen boiler with the same package of retrofits [11]. Like a boiler, they provide hot water as well as heating the living space - and in a heat-wave (which we expect to become a more common and severe occurrence) they could be used to *remove* excess heat too.

- **Can create tens of thousands of local jobs, distributed around the country, so contributing to the regeneration of regions affected by industrial decline.**

The Institute for Public Policy Research points out that energy efficiency is a labour intensive sector, with the ability to create 34,000 full-time jobs in the next two years alone [12]. By 2035 over 325,000 jobs could be created in the UK, in a scenario based on heat networks, heat pumps and energy efficiency measures - and even this is based on a scale of work and level of retrofit well below what would be needed to maximise energy efficiency.

Estimates by the Parity Project, who have produced the CROHM methodology for assessing and designing whole-house retrofit plans, are more ambitious, suggesting that getting all UK homes to an Energy Performance Certificate level C by 2030 would require *223,387 additional tradespeople immediately, rising to around 400,000 over the decade* [13]. Bringing the majority of stock up to an EPC rating of A/B (as is the ambition of Leeds City Council, [14]) would need a far bigger programme.

Moreover, these would be local jobs contributing to the regeneration of regions hit by industrial decline, and providing additional opportunities for local job creation through localising supply chains, in line with council aspirations to maximise retention of

economic output for the benefit of the local community. There is an opportunity here for Leeds City Council to implement strategies for meeting its wider economic and social goals, which can be taken up by other local authorities across the country.

- **A programme of mass deep retrofitting and installation of heat pumps compares well with other pathways for domestic heating**

Regardless of the heating technology used, deep retrofit (eg to near-Passivhaus/EnerPHit* or PAS 2035 standard**) is needed to minimise energy demand, in some cases even eliminating altogether the need for any heating beyond that from solar gain and radiated body heat.

In this scenario, heat pumps are adequate for heating most homes; they are already widely available, and production and installation could be rapidly scaled up to meet demand [15]. They may be combined with district heating networks, and have the ability to cool as well as heat space - a possible solution to overheating in Leeds high rise flats with external cladding!

Adequately insulating homes can therefore virtually eliminate domestic reliance on carbon-based fuels - whether wood, coal or gas for electricity generation, gas as a direct domestic fuel, or gas for hydrogen production. This is vital, as scenarios based on decarbonising these fuels depend on massive development of carbon capture and storage (CCS) infrastructure. CCS is currently unproven at the necessary scale, involves a significant additional energy demand, and is unlikely in practice to achieve the necessary CO2 capture rates [16], whilst the question of the long-term “security” of stored CO2 should give us concern. Just as crucially, such a system would not be on stream within the necessary timescale. A focus on such a pathway is therefore a dangerous distraction from the urgency of large-scale job creation through investment in domestic energy-efficiency measures such as we are proposing, along with rapid expansion of existing clean energy.

The Northern Gas Networks’ H21 project [17] - the proposed conversion of domestic gas supplies to hydrogen - depends, in its first phase, on the production of hydrogen from natural gas by the process of steam methane reforming [18], thus increasing UK reliance on imported gas, and again relying on (currently non-existent) large-scale CCS to remove the CO2 produced in this process [19]. The capacity to produce a “green” hydrogen from water at the scale and cost required is a distant prospect, in part because it would require a huge input of renewable-produced electricity - making it nonsensical as an alternative to electrification of home heating (with potentially some use of “green”

hydrogen in industry in the longer term, and as a chemical store for surplus renewable energy). Projects such as H21 inevitably mean massive diversion of resources away from genuine decarbonisation and into infrastructure that locks in fossil-fuel dependency for years to come - whilst simultaneously reinforcing corporate control of energy infrastructure at the expense of democratically controlled programmes that place workers and households at the centre.

The timescale and ambition for H21 is not encouraging: to paraphrase the H21 North of England report, conversion will not begin until 2028, and will see only 3.7 million properties converted by 2035 and 15.7m by 2050 [20]. This may seem a lot but is trivial in comparison to the speed and scale of emissions savings needed, which require an urgent programme of deep retrofit to at least 26 million homes across England, as well as investment in existing, genuinely renewable, energy sources (solar, wind, geothermal, tidal) and the skilled workers needed to install and maintain them.

Prioritisation of retrofitting to high (PAS35) energy-efficiency standards, combined with installation of heat pumps, is the pathway recommended by the majority of environmentally-concerned organisations, eg:

Centre for Alternative Technologies <https://www.cat.org.uk/>

Friends of the Earth <https://friendsoftheearth.uk/>

Institute for Public Policy Research <https://www.ippr.org/>

Greener Jobs Alliance <http://www.greenerjobsalliance.co.uk/>

The Committee on Climate Change <https://www.theccc.org.uk/>

- **A plan based on deep retrofitting brings more opportunities for community involvement and democratic governance**

A programme of the necessary ambition would need to be coordinated by local authorities, in collaboration with tenants' and community groups, existing community-based environmental projects, retrofitting practitioners, and of course the unions representing construction trades and those providing training. The Leeds Citizen's Jury is an example of a two-way approach which could be extended, of providing educational input to communities to support their participation in policy development. (Leeds Citizens' Jury has already placed a mass retrofitting programme high on its list of recommendations to the council [21]).

A successful programme depends crucially on "buy-in" from tenants and residents in all housing tenures, with retrofit ideally carried out on a whole-street or neighbourhood group basis, potentially across a mix of tenures within that group, or on behalf of a

cooperative or a self-organised group of home-owners. This implies a high level of community activity with a need for ready access to information (both technical and financial), drawing on initiatives such as RetrofitWorks [22], Carbon Coop [23] and one-stop shops (see Otley Energy [24]). In addition, some groups may opt to buy in house assessments and training to do the work themselves under professional supervision (see models offered by SURE Insulation [25]).

Beyond promotion and information sharing, perhaps the most crucial role for community groups, alongside unions, will be to campaign for the national policies and funding to enable the work to be done equitably and at the necessary scale! Grass-roots campaigns for retrofitting would have major payoffs in generating conversations in workplaces and neighbourhoods, raising awareness and creating a greater sense of agency and involvement with regard to the immediate and drastic change needed in many areas of life and work to limit global heating.

How do we see this plan being implemented?

Implementation must be considered in detail by the local authority in collaboration with unions, community organisations, other housing providers and low carbon building and retrofitting practitioners. Essential principles are community involvement and access to information, and of course prioritising council and other social housing, and areas with a high incidence of fuel poverty. Collaborating with housing and anti-poverty campaigners and community-based mutual aid and self-provisioning projects (eg PAYF cafes and free shops) is part of building this as a solidarity project connected with other concerns of those on low incomes. Other considerations include:

- **Labour and training models**

We are conscious of the huge problems caused by chaotic and exploitative employment conditions in the construction sector, with over a million construction workers in bogus self-employment and 300 000 more employed by umbrella companies. Clearly this poses a threat to workers' conditions and security of employment as well as to training opportunities. The long outsourcing chains common in both public and private sector projects pose additional problems for standards and accountability. Insecure and inflexible employment conditions combined with entrenched stereotyping have also resulted in persistent gender inequality issues, with women comprising only 12.5% of workers in the construction sector [26].

Training for low-emissions construction and retrofit is compromised by the deep underfunding of adult education; the narrow scope of most training courses which prevents trainees understanding the whole house and how the different elements fit together; the structure of the industry (predominance of small businesses, often narrowly specialised, without capacity to offer good-quality apprenticeships or sufficiently broad-based work experience, widespread use of labour only contracts etc), and separation of trainings for installing heating systems from those dealing with energy-efficiency. Initial training and upskilling needs to be a high priority for funding, especially in the current context of youth unemployment, job losses connected with COVID, and the need to transition workers away from high-emissions production.

We favour local authority insourcing of labour (direct labour organisations or DLOs), which is not only cheaper and more accountable, but also gives a unified workforce more say, more leverage in terms of pay, conditions and job-security (including, for example, parent-friendly employment conditions and stronger protections against gender-based harassment or discrimination) and potentially a structured framework for skills development. At the same time, this would enable local authorities to develop an integrated approach to training, employment and planning works for public need.

Whilst large-scale projects are dependent on the availability of suitably skilled labour, training provision is equally dependent on the availability of suitable work experience and employment destinations, so strong collaboration between the council and Leeds Building College is vital. Here also lie opportunities for encouraging young women into the sector, as well as those hit by the COVID crisis or who are seeking to escape the trap of low-paid precarious employment. Addressing the gender imbalance in the construction sector is a key strategy to reduce the gender-based income gap and the generally more precarious position of women in the job market, currently worsened by the impacts of the COVID crisis [27].

At the same time, we recognise the importance of small businesses/social enterprises in demonstrating the standards which can be achieved, and of voluntary-sector projects which offer trainings as well as managed accommodation (eg Latch [28] and Canopy [29] in Leeds), as well as DIY projects which can upskill, enthuse and empower self-organised community groups. Unionisation drives in these sectors would be essential in order to integrate these employment models on the basis of common standards of pay and conditions alongside common standards for skills and outcomes of the work.

- **Funding**

IPPR and local organisations such as Otley Energy recommend a “blended” approach with, for example, private homeowners receiving means-tested grants guaranteeing them at least 50% of the cost of retrofits with low-interest loans for the remainder, whilst council and Private Registered Providers (aka housing associations) could use a model such as Energiesprong [30], in which the capital costs are essentially repaid from the savings on tenants’ energy bills. However, the most equitable (indeed, redistributive) approach with the highest likely take-up would be a national programme financed entirely from progressive taxation, and coordinated by local authorities.

Regardless of what approach is used, it needs to support a community-wide plan and a whole-house approach to retrofit, even if this has to be done in stages. Whilst “piecemeal” improvements make a difference (for example energy-efficient appliances, smart controls, triple glazing or loft insulation applied as a single intervention), a whole-house approach is required to avoid a scenario where one improvement simply shifts heat loss elsewhere, or needs upgrading later. Small grants to homeowners such as we have seen in the Summer budget, as well as being inequitably targeted, invite this kind of unplanned piecemeal work.

The government has offered £380 million per year for 10 years to the social rented sector through the Social Housing Decarbonisation Fund [31]. However, covering even half the cost of retrofitting social rented sector homes falling below EPC level C would need £1.8 billion per year over the same period. The IPPR [32] estimates that the full cost of retrofitting all homes currently falling below this standard would be around £10.6 billion per year through to 2030, reducing to £7 billion per year from 2030 to 2050 (including private investment, which is likely to become far easier to leverage once the market is established). We need to go much further and much faster than that! However, there is scope for trade unions to perform their own analyses of cost and best funding models, and to campaign accordingly!

We should also remember that an estimated £10.7bn per year investment is needed to provide the 150 000 new council and other social rented houses per year that are needed to help fix the shortage of affordable homes [33] - and potentially somewhat more if these homes are to be built to adequate (PAS 2035) standards. However, investment in council housing not only pays for itself through rents, but also brings huge returns for the economy both in terms of employment in the sector and in boosted

supply chains, as well as large savings on Housing Benefits, health and social care, and benefits on numerous measures of social well-being.

- **The private rented sector**

This is the most problematic sector, with almost 70% of the private rented sector in Leeds having an EPC (Energy Performance Certificate) rating of D or E, with over 15% with a rating of F and below [34]. Clearly, far more stringent statutory standards are needed for this sector, with powers for councils to require landlords to participate in street- or neighbourhood-based retrofit schemes. Help for landlords to upgrade their properties would need to be accompanied by measures to prevent the improvements resulting in rent rises placing decent homes yet further out of reach of ordinary workers and benefit claimants.

Campaign demands

- To ensure democratic ownership and control of a mass programme of retrofit, with proper representation of both workers and householders, the programme needs to be coordinated by the council and developed in collaboration with the unions, as well as with residents and community organisations and retrofit practitioners. We are calling upon Leeds City Council to convene a working group which includes representatives of Leeds TUC and of relevant unions, to develop a specific strategy along the lines we have suggested.
- As well as working with the council, the City Region and community organisations to develop plans for mass deep retrofitting and installation of heat pumps, unions need to pose demands for national policy and government investment to support this pathway to a rapid decarbonisation of the domestic sector. This must include the necessary training and job creation schemes, and up-front government investment in large-scale projects in the social sector, implemented by local authorities, to stimulate supply chains, bring down prices, and create guarantees of job destinations for trainees and candidates for reskilling and redeployment.
- Unions can be proactive in estimating funding and training needs, drawing on skills and experience to develop policy on best training and employment models, and lobbying and advocating at the highest level for the necessary funding and policy frameworks, including necessary standards of energy efficiency for all housing regardless of tenure.

- Union members at the grass roots have an important role in pushing, through their branches, for these policies to be adopted at the highest level in their unions, as well as forming alliances with community-based campaigns. Union members are also householders and community members, and so stand to gain on all fronts from demands not just for work, but for socially useful and necessary work that will benefit their families and communities now and in the future.

Notes

*For details of Passivhaus construction and the related EnerPHit Standard for retrofit see, for example, https://www.passivhaustrust.org.uk/what_is_passivhaus.php

We suggest that aiming for EnerPHit certification for the millions of homes which need to be retrofitted within the next few years would be unrealistic, as it would require all components to be certified to full Passivhaus standard. A more pragmatic aim would be to achieve the best performance improvement possible for each dwelling using existing components, thus making it cheaper and faster. However, it must be emphasised that such a whole house approach must go far beyond a standard package of cavity wall insulation, double glazing and loft insulation.

The importance of a proper evaluation and whole-house plan for each dwelling or group of dwellings cannot be overstated, along with safety checks, inspection and monitoring of energy performance. Given the variety of routes involved in the delivery of retrofit across the housing stock in practice, these requirements underscore the importance of the council's direct coordinating and monitoring role across the range of finance and implementation models and housing tenures.

** PAS (Publicly Available Specification) 2035 is designed to improve the quality of retrofit work for domestic properties, incorporating a whole building approach to the retrofit process. "TrustMark" holders will be required to comply with this standard when carrying out any domestic retrofit work (see <https://www.trustmark.org.uk/ourservices/pas-2035>)

References

1. Intergovernmental Panel on Climate Change (2018) *Special Report on Global Warming of 1.5 degrees* <https://www.ipcc.ch/sr15/>
2. Intergovernmental Panel on Climate Change (2018) *Special Report on Global Warming of 1.5 degrees* <https://www.ipcc.ch/sr15/>

3. Leeds City Council 2019 Climate Emergency cover report
<https://democracy.leeds.gov.uk/documents/s198403/Climate%20Emergency%20Cover%20Report%20191219.pdf>
4. Leeds City Council 2019 Climate Emergency cover report
<https://democracy.leeds.gov.uk/documents/s198403/Climate%20Emergency%20Cover%20Report%20191219.pdf>
5. TUC 2020 *A Better Recovery for Yorkshire*
<https://www.tuc.org.uk/sites/default/files/2020-07/A%20better%20recovery%20for%20Yorkshire.pdf>
6. O Allan. J et al., (May 2020) A net-zero emissions economic recovery from Covid-19 at www.smithschool.ox.ac.uk/publications/wpapers/workingpaper20-01.pdf
7. Trade Unions for Energy Democracy, 2015,
<http://unionsforenergydemocracy.org/resources/tued-publications/tued-working-paper-5-the-hard-facts-about-coal-landing/>
8. Mark Z. Jacobson. The Health and Climate Impacts of Carbon Capture and Direct Air Capture. *Energy & Environmental Science*, 2019; DOI: 10.1039/C9EE02709B
9. Leeds City Council Best Council Plan 2018/19 - 2020/21
<https://democracy.leeds.gov.uk/documents/s178000/App%202%20-%20BCP%202018-21.pdf>
10. Public Health England, 2014, Fuel Poverty and Cold Home-Related Health Problems
https://1drv.ms/b/s!AoXg_zk3fZjNdx7-euIHzzMnc
11. Institute for Public Policy Research (IPPR) 2020: *All hands to the pump: a home improvement plan for England* <https://www.ippr.org/research/publications/all-hands-to-the-pump>
12. Institute for Public Policy Research (IPPR) 2020: *All hands to the pump: a home improvement plan for England* <https://www.ippr.org/research/publications/all-hands-to-the-pump>
13. Liz Laine 2020 *Net Zero Housing Workforce* <https://parityprojects.com/net-zero-housing-workforce/>
14. Leeds City Council 2019 Climate Emergency cover report
<https://democracy.leeds.gov.uk/documents/s198403/Climate%20Emergency%20Cover%20Report%20191219.pdf>
15. Institute for Public Policy Research (IPPR) 2020: *All hands to the pump: a home improvement plan for England* <https://www.ippr.org/research/publications/all-hands-to-the-pump>
16. Trade Unions for Energy Democracy, 2015,
<http://unionsforenergydemocracy.org/resources/tued-publications/tued-working-paper-5-the-hard-facts-about-coal-landing/>

17. See <https://www.northerngasnetworks.co.uk/>
18. Leeds Climate Commission Hydrogen Position Paper
<https://www.leedsclimate.org.uk/hydrogen-conversion-potential-contribution-low-carbon-future-leeds>
19. Institute for Public Policy Research (IPPR) 2020: *All hands to the pump: a home improvement plan for England* <https://www.ippr.org/research/publications/all-hands-to-the-pump>
20. H21 North of England <https://www.h21.green/wp-content/uploads/2019/01/H21-NoE-PRINT-PDF-FINAL-1.pdf>
21. The Leeds Climate Change Citizens' Jury September - November 2019
<https://sharedfuturecic.org.uk/wp-content/uploads/2019/11/REPORT-V1.1-FINAL.pdf>
22. <https://retrofitworks.co.uk/>
23. <https://carbon.coop/>
24. <https://otley2030.com/otley-energy/>
25. <https://sureinsulation.co.uk/>
26. <https://www.gmb.org.uk/news/construction-industry-just-125-women-and-54-bame>
27. <https://www.theguardian.com/world/2020/jul/24/economic-fallout-from-pandemic-will-hit-women-hardest>
28. <https://www.latch.org.uk/>
29. <http://canopyhousing.org/>
30. What is Energiesprong? <https://www.energiesprong.uk/about>
31. <https://www.socialhousing.co.uk/news/news/social-housing-needs-massive-programme-of-retrofitting-64522>
32. Institute for Public Policy Research (IPPR) 2020: *All hands to the pump: a home improvement plan for England* <https://www.ippr.org/research/publications/all-hands-to-the-pump>
33. Building our future: A vision for social housing
https://england.shelter.org.uk/support_us/campaigns/a_vision_for_social_housing
34. Leeds City Council 2019 Climate Emergency cover report
<https://democracy.leeds.gov.uk/documents/s198403/Climate%20Emergency%20Cover%20Report%20191219.pdf>

A motion calling for a programme of retrofitting Leeds homes with energy efficiency measures, and for a collaboration between trades unions, the local authority, educators and others to expedite such a programme

This Branch/TUC/AAC/Meeting believes that in we need to rapidly eliminate the burning of fossil fuels order to keep the increase of global temperatures within manageable limits.

To date there have been concerns that a policy based on the elimination of fossil-fuel energy might have an adverse impact on employment. Creating good quality jobs is a pressing concern, more than ever in the context of an economic recession resulting from the COVID pandemic.

We note that the energy used for domestic heating and hot water accounts for around 20% of the UK's greenhouse gas emissions, and so slashing these emissions must be a priority if we are to succeed in limiting global heating [1]

Great strides have been made in the development of renewable sources of energy for electricity generation in the form of wind, solar, tidal and geothermal energy. However, a successful transition to fully renewable energy also depends on an overall reduction in the amount of energy required.

Regardless of what energy source is used, the key to eliminating emissions from domestic heating and hot water is first and foremost to reduce demand by retrofitting/upgrading all homes with insulation and other measures, to excellent standards of energy efficiency.

Reducing the energy needed to heat homes to a high standard of comfort would have the advantage of eliminating fuel poverty and its many related health problems, whilst at the same time reducing the burden on renewable energy systems. For example, it would make it possible for heat pumps to become the main system for heating and hot water, using relatively little electricity.

An ambitious domestic energy efficiency programme would also create a large number of high quality skilled jobs. Exact figures depend on the timescale and scope of the programme adopted, but it is possible that 9m UK homes could receive whole house retrofit measures within the remaining course of this parliament, saving 15% of total domestic energy demand and also creating 117,000 new jobs in year one and peaking at 382,000 in year four. Estimates by the Parity Project [2] suggest that getting all UK homes to an Energy Performance Certificate level C by 2030 would require 223,387 additional tradespeople immediately, rising to around 400,000 over the decade. Bringing the majority of Leeds stock up to an optimal EPC rating of A/B would require an even more ambitious programme.

The government funding currently available for upgrading/retrofitting homes is a fraction of what is needed: for example, the Social Housing Decarbonisation Fund is worth £380 million a year for 10 years, but covering even half the cost of retrofitting social rented sector homes falling below EPC level C would need £1.8 billion per year over the same period [3]. The Green Homes Grant, worth a total of £2 billion, is a welcome step, but far more is needed.

In order to fully benefit from such measures we call on local trades councils, trades unions, local authorities, education and training establishments such as Leeds College of Building, as well as community organisations and retrofitting practitioners, to work together to enable whole house retrofits to be carried out within the region by:

1. Urgently utilising Green Homes Grants and demanding their extension
2. Seeking and campaigning for further financial methods of funding whole house retrofits.
3. Ensuring works carried out are undertaken by those with the appropriate skills, following thorough assessment of each dwelling, using safe and good quality materials, and that completed works are inspected for full compliance with safety and energy efficiency standards

4. Ensuring that the skilled workforce is available and proper apprenticeships are provided using the facilities of the College of Building and that the local authority should seriously consider creating an “in house” workforce, with fully negotiated terms and conditions of employment.
5. To convene a meeting involving all the parties above at the earliest opportunity, to explore the detail of such a programme.

References

1) <https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2020/06/Financing-energy-efficient-buildings-the-path-to-retrofit-at-scale.pdf>

2) **Liz Laine 2020 *Net Zero Housing Workforce*** <https://parityprojects.com/net-zero-housing-workforce/>

3) **Institute for Public Policy Research (IPPR) 2020: *All hands to the pump: a home improvement plan for England***