Quality Assurance Short Life Working Group
Recommendations Report

March 2019

Energy Efficient Scotland has the potential to offer significant benefits to householders and businesses across Scotland. In order to achieve this, there needs to be a robust supply chain in place that can provide high quality energy efficiency products and services across Scotland. Furthermore, the capacity of the supply chain will need to increase significantly over the coming years if the aims and objectives of the Programme are to be met. This includes eradicating fuel poverty, mitigating climate change and growing the Scottish economy in an inclusive way. Consequently, this is expected to offer significant economic and development opportunities for suppliers across Scotland.

Alongside these opportunities come challenges. Through my work at the Energy Saving Trust I have witnessed first-hand the issues facing both householders and suppliers. Whilst most householders have little cause for complaint with the work done on their property, the fact remains there are still householders out there who are being mis-sold energy efficiency measures and/or are having problems with the quality of their installations. On the other side of the coin, suppliers – particularly micro-sized businesses (10 employees or less) - have their own issues. I have spoken to many suppliers, from Dumfries and Galloway to the Shetland Islands, and the same themes come up again and again highlighting the cost and hassle of obtaining certifications as well as perceived barriers relating to procurement being the most common. Given the important role that suppliers will play in Energy Efficient Scotland, the challenges they face and the need for robust consumer protection, the Scottish Government decided to set up a Short Life Working Group looking at supply chain and skills and I was pleased to accept their invitation to Chair this group.

Members of the working group were chosen on the basis of their expertise with representatives having significant knowledge on construction, economic development, qualifications and skills, historic buildings and consumer protection. I would like to personally thank them all for the significant time they have given in helping shape the recommendations in this report. I would also like to take this opportunity to thank the team at the Scottish Government for bringing the Group together and facilitating our discussions.

This report summarises the work of this Group and covers five key themes: quality assurance, building the workforce, consumer protection, procurement and non-domestic. Each chapter represents one of the key themes discussed and sets out the Group's perspective for each along with recommendations of which there are 21 in total.

Should these recommendations be adopted, it would mean installation work undertaken under Energy Efficient Scotland would be carried out by fully competent people, providing appropriate warranties and guarantees and be backed by independent inspections. There would also be robust sanctions taken against any supplier falling foul of the Programme's rules as well a single point of contact to help guide consumers through a clearly outlined complaints process.

The Group was keen to recognise the good work suppliers are currently doing and through these recommendations, we want to make sure that every business who is committed to achieving high quality work should have the opportunity to benefit from the Programme, no matter where they're based or what their size is. Furthermore the quality assurance requirements for the Programme should be fair, proportionate and not cost-prohibitive for businesses

Over the next few months we will continue to engage with industry and other stakeholders to look at ways in which we can work with the Scottish Government to raise awareness of Energy Efficient Scotland amongst our SME suppliers and how best to support their participation in the Programme. In addition work is already underway through the Energy Skills Partnership and Scottish Colleges to implement the recommendations from the Building the Workforce chapter. Overall by implementing these recommendations we hope to develop a supply chain that can grow and develop with the Programme and at the same time provide a high level of service to householders and businesses.

Ian Cuthbert
Chair of Short Life Working Group

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Introduction

The Policy Landscape

Energy Efficient Scotland is the Scottish Government's flagship energy efficiency programme. It brings together work to improve the energy efficiency of Scotland's buildings and has two main goals; to remove poor energy efficiency as a driver of fuel poverty and to reduce greenhouse gas emissions from Scotland's building stock.

Improving energy efficiency of buildings is a priority of the Energy Strategy [1] which outlines that the Scottish Government will take action to improve the use and management of energy in Scotland's homes, buildings, manufacturing and industrial processes. Energy Efficient Scotland is also a key delivery mechanism for the new Climate Change (Emissions Reduction Target) [2] and Fuel Poverty (Targets, Definition and Strategy) (Scotland) [3] Bills which were introduced in Parliament earlier this year. Through setting ambitious goals for fuel poverty and greenhouse gas emission reductions, the two Bills make the successful delivery of Energy Efficient Scotland key to achieving these targets. In the context of the Energy Strategy, the Programme has a role in achieving the vision of a flourishing and competitive local and national energy sector, which will deliver secure, affordable and clean energy for Scotland's households, communities and businesses. Energy Efficient Scotland will operate across all parts of Scotland - rural, urban, small towns and islands. It builds on Scottish Government's existing successful programmes and over time will integrate and extend them so that they make an offer of support to property owners across Scotland.

The Scottish Government published the Energy Efficient Scotland Route Map in May 2018. The Route Map [4] sets out the pathway to realising the vision to make Scotland's buildings warmer, greener and more efficient.

Previous consultations on Energy Efficient Scotland [5] [6] have identified a consensus that long-term standards are essential to allow property owners to plan for the future and to provide long-term certainty for the supply chain. The Route Map therefore sets out the trajectory for all domestic buildings to reach an Energy Performance Certificate (EPC) of band C by 2040 with stretch targets for different sectors, bringing the ambition forward to 2030 in the private and social rented sectors and for households experiencing fuel poverty. Non-domestic buildings will also be assessed and improved to the extent which is technically feasible and cost-effective by 2040.

In 2017, 58% of homes were rated EPC band D or below [7] and this represents the scale of the opportunity for the supply chain in Scotland to increase the rate of installation of energy efficiency improvements between now and 2040. In addition, there are currently 200,000 non-domestic premises in Scotland, 20,000 of which are public sector buildings and many of which are likely to require some improvements to their energy performance.

Energy Efficient Scotland therefore has the potential to support substantial employment opportunities and build Scotland's supply chain. It has been estimated that the Programme will require investment of £10 billion over its lifetime and that every £100 million spent on energy efficiency improvements in 2018 will support approximately 1,200 fulltime equivalent jobs across the Scottish economy[1].

Considering the significant economic opportunity, as well as the importance of Energy Efficient Scotland in achieving Scotland's fuel poverty and greenhouse gas emission reductions targets, establishing trust in the programme is vital to its success. In addition, robust quality assurance, consumer protection, and a skilled workforce as well as compliance and enforcement of these standards are critical. Energy Efficient Scotland provides an opportunity to build on existing provisions and create an integrated, accessible and effective quality assurance framework.

Short Life Working Group on Quality Assurance

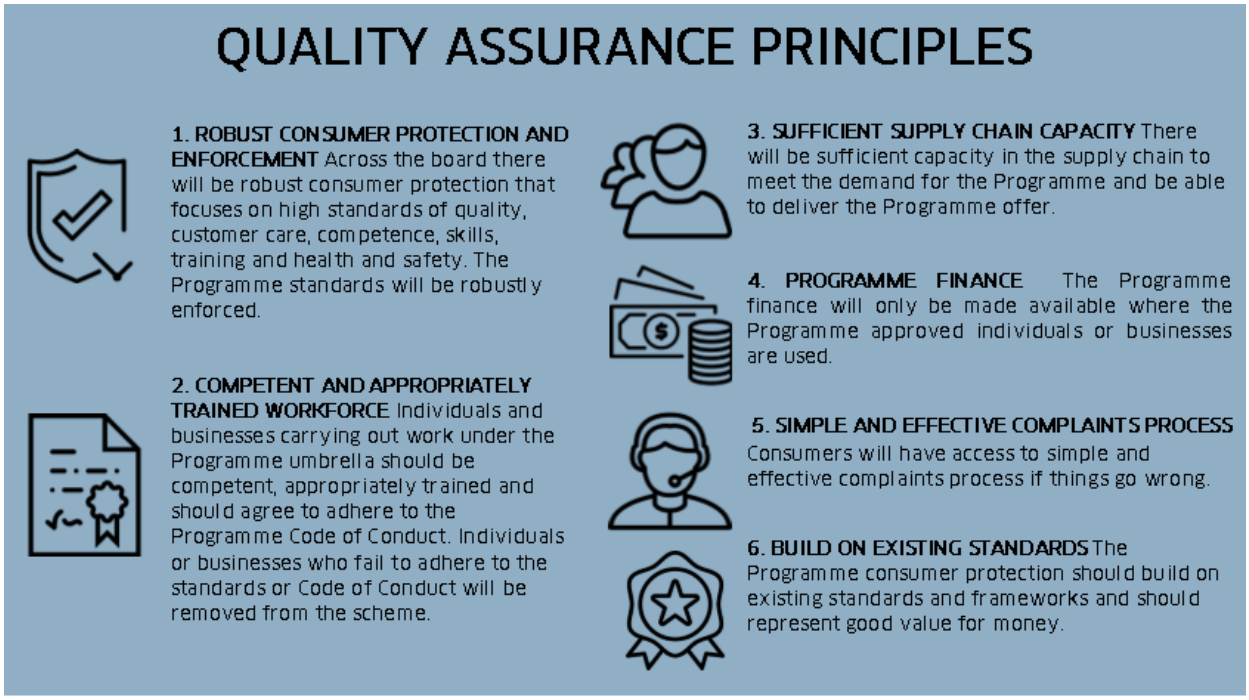
In order to ensure that quality assurance under Energy Efficient Scotland reflects the needs and views of the Scottish supply chain, Scottish Ministers agreed to convene a Short Life Working Group (SLWG) to focus on the quality, skills, supply chain and consumer protection requirements of the Programme. This Group included representatives from across industry, consumer organisations and enterprise and skills agencies. A full list of member organisations as well as the Group's remit can be found in Annex A of this report. The role of the Scottish Government in the Group was to facilitate the discussions by providing administrative and secretariat support.

The SLWG worked to put forward the recommendations set out in this report to ensure that a comprehensive quality assurance framework can be developed as part of Energy Efficient Scotland, that consumer protection is at the core of the framework, and that Scotland has a competent, appropriately-trained supply chain to meet likely consumer demand for energy efficiency improvements. The work of the SLWG and the themes discussed were guided by the Principles set out in the Route Map and outlined below. The Group's discussions were principally focussed on the self-funding market (householders not in receipt of any public grant support) and Local Authority-led delivery of energy efficiency improvements in domestic and smaller non-domestic properties i.e. those out of scope of the Non Domestic Energy Efficiency (NDEE) framework developed by Scottish Government[2].

In developing these recommendations, the Group considered current developments around the Each Home Counts review and the development of new retrofit standards[3]. We suggest that Scottish Government continue to monitor its progress to ensure there is sight of this in future policy development and that Scotland's supply chains can benefit from energy efficiency initiatives elsewhere in the UK.

[1] Applying the latest construction sector multiplier (for 2014) from the Scottish Government input-output tables, and deflating 2018 spend to 2014 prices using the GDP deflator.
[2] https://www.gov.scot/policies/energy-efficiency/energy-efficiency-in-non-domestic-buildings/
[3] British Standards Institute (BSI) Publically Available Specification (PAS) 2035

We also suggest that the recommendations are re-visited once we have greater clarity on the delivery of the Programme. This will allow for a more accurate determination of the cost of their implementation and how they could be applied in practice. In the meantime, development will continue to be built on industry best practice and existing processes to minimise costs for both the consumer and supplier and will be carried out in conjunction with Scottish Procurement and Commercial Directorate and other partners to ensure the final requirements are proportionate, fair and non-exclusionary.



The SLWG met for the first time in January 2018 and held five meetings covering the following themes:

- **Quality** – identify how we can ensure high standards are consistently met across the lifetime of the Programme;

- **Skills and Capacity** – make sure that Energy Efficient Scotland drives improvements in the skillset of the industry and that there is sufficient capacity in the supply chain to meet a potential increase in consumer demand;

- **Procurement** – identify any remaining barriers still faced by small and medium enterprises (SMEs) and micro-businesses in public sector procurement and how these could be overcome;

- **Non-domestic buildings -** understand the opportunities for the supply chain in this sector and identify the skills needs;

- **Consumer protection** – ensure that the needs of consumers are considered at every stage of the Programme development and the delivery of the eventual customer journey.

In considering the specific needs of the supply chain in Scotland, the SLWG also discussed how:

- to provide clarity on the quality assurance and consumer standards expected from supply chain participants as part of the Programme delivery framework;

- to keep the supply chain informed of the work and training opportunities available;

- to assess and address any barriers that suppliers might face in participating in the Programme;

- we can best promote the opportunities available to small and medium enterprises (SMEs) and micro-businesses throughout Scotland and help ensure that they can benefit from the significant economic investment presented by the Programme;

- to promote skills and training opportunities for the supply chain;

- we can best help the industry overcome inefficiencies and keep their costs low, making participation in the Programme financially viable while maintaining a high standard of quality;

- to be inclusive of industry and support them through the Programme transition period and beyond.

Next steps

This report is the culmination of the SLWG's work over the last 12 months and includes 21 recommendations on the themes and topics considered. In addition, the report includes information on progress to date as well as suggestion of how the recommendations and actions could be monitored and evaluated.

As suggested throughout, there is a need now to engage with wider industry on these recommendations, the projects that are being taken forward as a result and the wider plans for Energy Efficient Scotland to both raise awareness and to seek their views on this proposed direction of travel. There will also be a need to re-visit the recommendations once there is greater clarity on the delivery of the programme and the offer that will be made to its recipients.

Chapter 1: Quality

ROBUST CONSUMER PROTECTION AND ENFORCEMENT Across the board there will be robust consumer protection that focuses on **high standards of quality**, customer care, competence, skills, training and health and safety. The Programme standards will be robustly enforced.

Quality: Underpinning Energy Efficient Scotland

Trust in Energy Efficient Scotland and demonstrable realisation of the Programme's potential benefits for all of its customers are crucial to the Programme's success. As the principles set out, consistently high levels of customer care, a focus on good workmanship and ensuring that only the most appropriate measures are installed in each building will form the basis of the quality assurance framework, and effective enforcement of these standards will build trust and consumer confidence in the Programme . The SLWG wanted to ensure that the Programme's quality standards are robust and that they underpin all of the work completed as part of Energy Efficient Scotland. As such, quality intersects with all other topics considered by the SLWG and was therefore the first topic to be explored.

The Short Life Working Group perspective

The subject of quality was a recurring theme throughout all five meetings, with the main opportunities identified as follows:

- Industry are likely to find it difficult to fully commit to the Programme without certainty on investment and delivery timescales. Energy Efficient Scotland provides a long-term vision until 2040, but it will be crucial to have clarity on the Programme delivery mechanisms. This will provide a level of comfort to ensure industry buy-in and allow industry to make the commitment required to participate in the Programme;

- We must learn lessons from previous programmes such as the Green Deal to ensure that Energy Efficient Scotland becomes a high quality, trusted brand;

- As certain measures, such as External Wall Insulation (EWI), are currently not recognised as a distinct trade, this has led to no formalised training taking place in Scotland. Energy Efficient Scotland provides an opportunity to address this to ensure work is completed by appropriately-trained and competent suppliers;

- Installers' understanding of what is technically appropriate e.g. which materials should be used for a particular property, is crucial to the maintenance of quality standards.

Recommendations

The recommendations outlined in this section seek to address the issues raised and opportunities identified, from the quality of the technical execution and the long-term impact it has on the building fabric to timeliness of the work done and customer care.

Recommendation 1. There should be Quality Assurance criteria developed which detail the key mandatory requirements for suppliers wishing to participate in Energy Efficient Scotland.

The requirements should include:

- Skills and competencies broken down by measure and building type;
- Quality management;
- Customer care;
- Fair work practices;
- A Code of Conduct;
- Workmanship guarantees;
- Contractual arrangements with customers;

These should be integrated, where possible, with existing quality assurance measures as provided by trade and professional bodies and should be fair, proportionate and not cost prohibitive where possible. However, where it is identified that these existing models do not satisfy the high quality standards and customer care requirements of Energy Efficient Scotland, Programme-specific criteria should be developed to ensure that robust quality assurance is in place.

Recommendation 2. There should be a Quality Mark for Energy Efficient Scotland and suppliers wishing to take part in the Programme will have to demonstrate that they meet all of the requirements (set out in Recommendation 1) through a robust vetting and verification process to achieve the Quality Mark. All approved suppliers should be listed on a publicly available Directory and where possible the use of operative ID cards should be considered.

In addition to verifying that suppliers meet the criteria set out at Recommendation 1 the vetting process must include checks and verification of:

- Credit and trading history of the business; and
- Criminal convictions of Directors, other senior management staff and operatives;

The Quality Mark should be licensed for use only by approved suppliers and only those using the Mark should be listed in the Directory.

The publicly available Directory should be maintained centrally so that it is easily identifiable by consumers. Further work will need to be undertaken to identify how this might be implemented and ensure that the Directory is successfully marketed to consumers and this is explored further in Chapter 3: Consumer Protection.

If suppliers are found to be non-compliant with any aspect of the criteria e.g. through ongoing independent inspections, they should be subject to sanctions which could include closer monitoring of their work and, ultimately, removal of the Quality Mark and their place on the Directory.

An Energy Efficient Scotland operatives Identification card could display the Quality Mark and thereby clearly demonstrate approved supplier status to consumers. However, this should be balanced with the myriad other card schemes which currently exist, such as Gas Safe and Construction Skills Certification Scheme (CSCS), and will be considered as part of quality assurance criteria research (outlined at in Recommendation 1).

Recommendation 3. The verification process must not place an undue administrative or financial burden on SMEs, particularly micro-businesses.

The quality assurance criteria (Recommendation 1) should allow suppliers to achieve the Quality Mark, regardless of company size or the location of their base of operations, including remote, rural and island areas. An option to allow suppliers a set period of time (6 to 12 months) to complete any required elements of the criteria should be considered whilst exploring how quality standards can be maintained under the Programme in this set timeframe. This would ensure that suppliers are not locked out of the Programme, while providing them with an opportunity to upskill staff.

Recommendation 4. Define what success looks like in terms of quality for the building, consumer and funder, and set specifications for the final output of work.

What success looks like for a particular building could be based on pre-determined building archetypes and should include both technical and social outputs e.g. quality of workmanship, reduction in energy usage and bills as well as improvement of thermal comfort.

Target outcomes should also take the householder's circumstances into account. For example, in a setting where householders cannot afford to maintain a warm home, the energy efficiency improvements might not lead to a saving in energy bills but may improve the thermal comfort of the residents. Furthermore, implications of the installed measures for indoor air quality should be carefully considered as unintended consequences, resulting in poor occupant health, can arise if there is a lack of ventilation or due to materials used .

The quality specifications for the final output of work should ideally apply to all work completed under Energy Efficient Scotland where an approved supplier is used, regardless of funding source. However, this will be dependent on the Programme delivery mechanism and this will be explored in more detail in due course. Therefore, we recommend that, in the meantime, the quality specifications apply to all work where public funding is made available and an approved installer is used.

Energy efficiency solutions should also be sufficiently monitored and evaluated to demonstrate their performance to help build consumer confidence in measures

applied. Solutions should align with definitions of success and could therefore assist in building trust in the Programme, which will also be complemented by the implementation of independent inspections, suggested in Recommendation 6. Monitoring and evaluation of Energy Efficient Scotland is being developed as part of a dedicated work stream which will consider evidence from the delivery of Scotland's Energy Efficiency Programme and Energy Efficient Scotland pilot projects [8] as well as schemes such as Home Energy Efficiency programmes for Scotland: Area-Based Schemes (HEEPS: ABS) and Warmer Homes Scotland.

Recommendation 5. A new designer role should be considered to ensure that that a whole building approach is taken and that only the most appropriate improvements are applied in practice.

The designer could be responsible for the technical specification of improvements that could be made to a building as a whole, including connectivity and smart technology integration. Where a designer may be required (outlined in Recommendation 8) they would be expected to take ultimate responsibility for the retrofit work undertaken in the property.

This level of intervention is unlikely to be required in all circumstances and this could be determined on a risk, cost, property type or measure-based approach. As the specifics of the role are developed, the criteria for when a designer should be engaged should be identified.

Recommendation 6. Independent inspections of installations must be carried out as part of Energy Efficient Scotland to ensure quality standards are being consistently met.

The nature and rates of inspections should be clearly defined, related to expected outcomes (Recommendation 4), and focussed on the technical quality of the work undertaken. As outlined at Recommendation 2, the independent inspections should also be linked to the approved use of the Quality Mark and help to identify where sanctions need to be applied. The rate at which inspections are carried out for a particular supplier could vary over time and could be related to the length of time that supplier has been on the Energy Efficient Scotland Directory and/or their performance (Recommendation 2).

There should also be a consideration for the frequency of inspections depending on the type of retrofit. For example, External Wall Insulation could require a follow-up inspection after a period of 5 to 10 years as it may take time before any associated problems become evident. This will allow suppliers to build up a body of evidence on their quality, performance and competence and for the monitoring of wider Programme outcomes.

The development of inspections under the Programme could be done with input from organisations already carrying out inspections of building work such as Warmworks Scotland, Changeworks, Pennington Choices, Historic Environment Scotland and local authorities. Monitoring outcomes should be aligned with the wider Energy Efficient Scotland review period and if the inspections show that outcomes are not being achieved, a process should be put in place to address this.

As the delivery mechanism for the Programme is still being developed, further work should be undertaken to explore who would be best placed to conduct these independent inspections, whether there could be a central point of inspection record collection, how this could be used to inform future Programme development and how will this be linked with the ongoing vetting and verification of Directory suppliers (Recommendation 2). In any case, the Group expect the inspection regime and Quality Mark to have real teeth and to be very robust with any supplier that failed inspections on a systematic basis being likely to lose their Quality Mark on a temporary or permanent basis.

The Chair of the Working Group, Ian Cuthbert has joined the Scottish Government on secondment from Energy Saving Trust to lead on developing the quality assurance criteria needed for Energy Efficient Scotland. This work will factor in all of the recommendations in this chapter and will overlap with the work being done by the Energy Skills Partnership (see next section).

Chapter 2: Building the workforce

COMPETENT AND APPROPRIATELY TRAINED WORKFORCE Individuals and businesses carrying out work under the Programme umbrella should be competent, appropriately trained and should agree to adhere to the Programme Code of Conduct. Individuals or businesses who fail to adhere to the standards or Code of Conduct will be removed from the scheme.

SUFFICIENT SUPPLY CHAIN CAPACITY There will be sufficient capacity in the supply chain to meet the demand for the Programme and be able to deliver the Programme offer.

Skills and Capacity: Building the workforce

Energy Efficient Scotland sets a long-term ambition for energy efficiency improvements to prevent uncertainty and ensure the development of an established market for energy efficiency retrofit. As previously outlined, the estimated investment Energy Efficient Scotland could attract is significant and has the potential to deliver considerable economic and social benefits.

It is important that local suppliers, particularly SMEs are able to participate in the Programme to ensure that these wider benefits are realised in communities across Scotland. Energy Efficient Scotland and the opportunities it presents can help develop Scotland's workforce while ensuring that individuals and businesses working under the Programme are appropriately-trained and qualified. The SLWG therefore considered both skills and capacity and the following sections provide a brief outline of the current energy efficiency supply chain landscape.

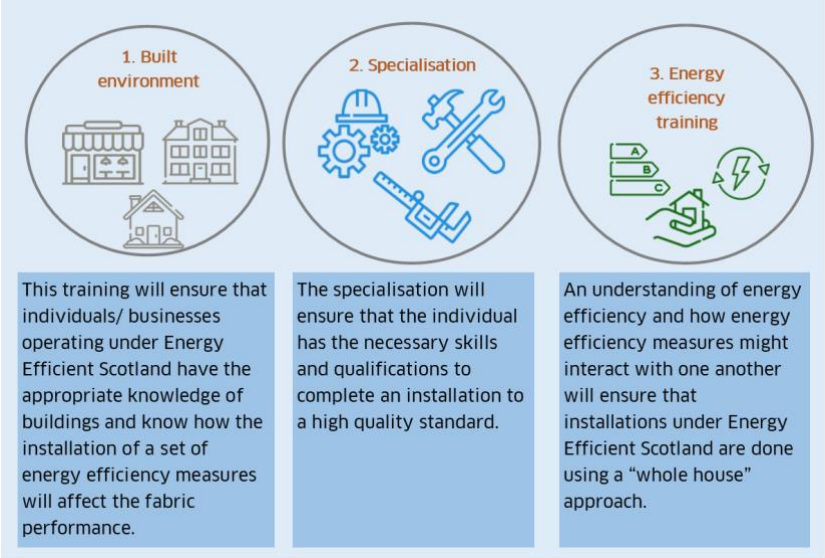
Capacity

A recent report on local skills needs for Scotland [9] identified no Scotland-wide capacity issues in the wider construction sector. However, a shortage of skilled individuals in various energy efficiency retrofit-related roles was found to exist locally in rural and remote areas, such as the Highlands & Islands, Dumfries and Galloway and the Scottish Borders.

Skills

Many of the skills needed for retrofit are already prevalent in the construction industry e.g. plumbing and heating. This is why skills requirements and provisions under Energy Efficient Scotland could not only ensure skills and capacity is sufficient to meet an increase in energy efficiency retrofit demand, but could also help build capacity within the wider industry.

Certain energy efficiency measures, such as External Wall Insulation (EWI), are currently not supported by recognised qualifications, training or apprenticeships. The training is therefore largely based on manufacturers' systems and does not necessarily include building or construction types which may risk the installation of inappropriate materials. It is crucial for installers to have an understanding of the suitable products based on the property's characteristics.



The need for a "whole building" approach which requires foundational knowledge of buildings and construction type, is reflected in the recommendations which follow. They focus primarily on the technical requirements which will be specified as part of Energy Efficient Scotland.

The Short Life Working Group perspective

The challenges and opportunities discussed by the SLWG included:

- It will be challenging to ensure successful industry engagement with Energy Efficient Scotland in a climate of fluctuating investment certainty and a lack of clarity on the full Programme delivery mechanisms. This would influence the capacity of the supply chain and in turn influence its ability to respond to any increase in consumer demand for energy efficiency improvements.

- In addition to establishing a long-term vision up to 2040 and market certainty, Energy Efficient Scotland provides an opportunity for developing local skills and building capacity in Scotland. This is in alignment with the Scottish Government Enterprise and Skills Strategic Board's Outline Plan [10] aiming to facilitate a wide range of organisations and agencies working collaboratively for a better Scotland.

- There is potentially a gap in customer care training and this will be particularly evident under a programme like Energy Efficient Scotland. As retrofit work differs from other types of construction, where typically no or limited face to face interaction with customers happens, additional skills are required to ensure a good level of customer service is achieved.

- The supply chain must be able to respond to a potential increase in consumer demand and be able to adapt to emerging technologies and innovation to avoid gaps in provision.

- Energy Efficient Scotland represents an opportunity to further develop training on buildings and/or construction types to ensure that only the most appropriate measures are installed each time.

Recommendations

The following recommendations aim to ensure that individuals and businesses undertaking work as part of Energy Efficient Scotland are appropriately trained or upskilled, qualified and have the required competence to meet the needs of the Programme.

Recommendation 7. Installations under Energy Efficient Scotland must be based on skill and competencies, and a skills and qualifications matrix should be developed and clearly communicated to the supply chain to reflect this.

To ensure this is the case, the skills and qualifications requirements must be mandatory for any business wishing to participate in the Programme. However, it must take into account prior learning and on the job experience to allow participation of suppliers already within the industry. Scottish Government should also consider how any public sector procurement carried out for Energy Efficient Scotland can drive skill and competence whilst ensuring that requirements are proportionate, fair and non-exclusionary.

As a minimum, participants must meet core competency requirements including knowledge of the building or construction type (Recommendation 4) to ensure "a whole building" approach as well as customer service and care. In addition, individuals completing installations under Energy Efficient Scotland should be able to advise consumers on changes in behaviour following the installation to optimise the performance of the measure installed for example, where new heating controls have been installed.

An exercise should be undertaken to identify existing qualifications relating to energy efficiency, colleges offering them and any potential gaps. The Energy Skills Partnership will be taking forward this work in collaboration with the Energy Saving Trust, and more detail is provided below.

Energy Skills Partnership will undertake research in collaboration with the Energy Saving Trust to map Energy Efficient Scotland requirements against existing National Occupational Standards and determine where gaps exist. This work will also clearly set out qualification requirements under the Programme and create a new energy efficiency data link to all qualifications as part of the existing interactive skills map[4]. This work will ensure that Scotland's colleges are central to training. It is intended that this project will help achieve smarter integration and alignment of existing training and qualifications, drive sustainable inclusive growth and deliver good quality jobs.

Finally, all training opportunities should be advertised and be accessible to any supplier wishing to participate, particularly SMEs and micro-businesses, and those in remote and rural areas.

Recommendation 8. The skills and competency requirements of the designer role should be determined and an analysis of current capacity within the workforce should be undertaken.

If the role of the designer as outlined in Recommendation 5 is taken forward, it should be executed by an appropriately qualified individual e.g. an architectural technologist. These requirements will be considered as part of the skills and qualifications matrix developed by the Energy Skills Partnership detailed in Recommendation 7.

Recommendation 9. A mobilisation plan for developing skills for the supply chain should be published to help provide pipeline security and build capacity.

Many of the skills and trades already exist and this should therefore begin with an analysis of current supply chain capacity to identify any gaps that might impact on the ability to meet consumer demand under Energy Efficient Scotland. The mobilisation plan should also include timescales and key milestones for Energy Efficient Scotland from a supply chain perspective for example, the publication date of the Energy Efficient Scotland Quality Assurance criteria and the list of Programme-related training courses.

The mobilisation plan should have a particular focus on SMEs and micro-sized businesses across Scotland but especially in those areas with existing capacity issues i.e. the Highlands and Islands, and South East Scotland. It should be developed before the end of Energy Efficient Scotland Transition period and continue to be used as a tool for capacity building and skill development once the Programme is underway.

[4] http://www.esp-scotland.ac.uk/collegesmap-menu

Recommendation 10. Energy Efficient Scotland should be well advertised to the supply chain via roadshows, events, webinars and trade publications.

Communications should be flexible and suited to the needs of the supply chain. Additionally, information on Energy Efficient Scotland should be regularly updated and communicated to give confidence to industry that the Programme has a financial commitment and will launch on schedule. This could build on existing research on energy supply chains [11] [12] and the Sustainable Energy Supply Chain Programme managed by EST [11], which provides on the ground training, webinars and guidance for SMEs on topics such as public procurement.

Recommendation 11. Investment in Energy Efficient Scotland must support inclusive economic growth

This means growth that combines increased prosperity with greater equality, creates opportunities for all, and distributes the benefits of increased prosperity fairly.

Energy Efficient Scotland should contribute to the development of a strong labour market that drives inclusive and sustainable economic growth, characterised by:

- growing and competitive businesses;
- an inclusive work environment which encourages more women to join the workforce;
- high employment;
- a skilled population capable of meeting employers' needs;
- fair work being central to improving the lives of individuals and their families;

The Programme should foster a culture of fair work in Scotland, in which employees feel valued and fulfilled, and jobs are secure and well-paid. Businesses participating in Energy Efficient Scotland should be encouraged to commit to using fair work practices, such as paying the Living Wage, by signing up to the Scottish Business Pledge[5].

[5] https://scottishbusinesspledge.scot/

Chapter 3: Consumer Protection

ROBUST CONSUMER PROTECTION AND ENFORCEMENT across the board there will be **robust consumer protection** that focuses on high standards of quality, **customer care**, competence, skills, training and health and safety. The Programme standards will be robustly enforced.

SIMPLE AND EFFECTIVE REDRESS Consumers will have access to simple and effective redress if things go wrong.

Consumer Protection: putting consumers at the heart of Energy Efficient Scotland

Consumer protection in energy efficiency and renewable energy is currently provided by a number of organisations including Trading Standards Scotland, Ofgem, Ombudsman organisations and independent guarantee schemes. However, levels of redress vary significantly between different organisations and compliance schemes. Redress processes, where they exist, can be unclear, slow and difficult for consumers to navigate. Ultimately, they may not satisfactorily resolve the consumer's complaint.

Consumer protection enforcement powers are reserved to the UK Government, although the Scottish Government has new powers to provide consumer advocacy and advice, and is able to stipulate quality requirements for installers on incentives that are made available through Energy Efficient Scotland and other Scottish Government schemes.

We are keen to see Scottish Government use these powers and ensure that consumers are at the heart of Energy Efficient Scotland. This would also ensure that the Programme will help to build a fairer Scotland overall.

Consumer Protection: A Short Life Working Group perspective

The SLWG identified the following opportunities:

- A "one-stop shop" approach is required to ensure a streamlined consumer journey from the initial independent advice to seeking redress if things go wrong. There are certain challenges with designing this at the current stage as the Energy Efficient Scotland delivery mechanism is, at time of publication, still to be determined.

- Some of the most prominent consumer issues in relation to energy efficiency improvements are mis-selling and high-pressure doorstep sales tactics, particularly involving consumers in vulnerable circumstances.

- It was emphasised that confidence in the Programme will also be strongly dependent on the level of transparency any supplier directory (Recommendation 7) would provide. For example, publicly available vetting and verification guidelines will give confidence to consumers that suppliers completing energy efficiency work under the Programme are appropriately qualified and competent to do so.

Recommendations

As a result of the SLWG's work, the following 5 recommendations which focus on consumer protection as part of the installation and after care of the Energy Efficient Scotland offer, aim to ensure that consumers:

- continue to have access to free, independent and impartial advice;
- recognise Energy Efficient Scotland as a trusted brand, offering a quality assured environment (Chapter 1: Quality and 2: Building the Workforce), and understand the potential benefits of increasing the energy efficiency of their home; and
- have access to a clear, simple and well-defined complaints process, with support to navigate this, if things go wrong.

Finally, it is important to note that the delivery of these recommendations is dependent on the delivery mechanism identified for the Programme. Once this has been defined, it will be possible to identify the mechanism through which these recommendations could be taken forward but we would suggest that this work feeds into the creation of the new Consumer Scotland body and the Consumer Energy Action Plan.

Recommendation 12. There should be a clear, simple and well-defined complaints process with support available for the consumer to navigate the process.

This should set out the levels of service consumers can expect when they have a query or make a complaint including timescales.

A clear path to resolution should be available for consumers who receive energy efficiency improvements under Energy Efficient Scotland and additionally, guidance should be available for consumers who choose to do so outwith the Programme.

This should also be linked to the Quality Mark where any supplier with systematic failures in relation to upheld complaints or poor customer care would risk losing their Quality Mark on a temporary or permanent basis

Recommendation 13. There should be data sharing between key agencies in Scotland to monitor the frequency and nature of complaints, and identify and deal with non-compliant and rogue companies promptly.

This should include consumer protection organisations and partners, including (but not limited to) Citizens Advice Scotland, Trading Standards Scotland and Police Scotland.

Additionally, it would be beneficial if information on all complaints made on Energy Efficient Scotland suppliers is held centrally to allow for issues or complaints to be detected and tracked, and dealt with swiftly and thoroughly including the application of the sanctions identified at Recommendation 2 such as removal of the supplier's Quality Mark on a temporary or permanent basis. This would also allow for quality outcomes to be monitored, gaps identified and progress against targets to be tracked.

Recommendation 14. Consumers and suppliers should be encouraged or required to enter into a contractual agreement outlining the responsibility of the supplier completing any of the retrofit stages.

As set out in in Recommendation 1, all approved suppliers will be required to enter into a contractual agreement with the householder for retrofit work. For consumers not using a Directory supplier, support should be made available to ensure that the consumer is encouraged to enter into a contractual agreement which outlines the responsibility for the retrofit work completed. This could be based on the Scottish Building Contracts Committee "Minor Works" contract [3].

This contract would make it clear who the customer should approach just in case something goes wrong.

Recommendation 15. A campaign of awareness raising about Energy Efficient Scotland and energy efficiency retrofit in general should be undertaken during the transition period and beyond.

This should be done through the development of a communication strategy and should include consumer testing and market research to ensure key messages will most resonate with the broad range of potential Energy Efficient Scotland customers. It should also include information on the standards and what to expect from an installation in terms of cost, customer service and outcomes to increase customer confidence and reduce the risk of mis-selling. This is being taken forward by a dedicated Programme Communications work stream.

This work should also include extensive 'scenario testing' to explore potential consumer detriment, based on experiences of consumer protection under other energy efficiency schemes. This would inform further Energy Efficient Scotland consumer protection developments.

Recommendation 16. There should be support and advice for consumers on guarantees and warranties.

This should include advice on maintenance and behaviour to ensure guarantees and warranties are not invalidated through improper or lack of maintenance, or through the compromise of the technical or physical integrity of the measure. As set out in Recommendation 1, Energy Efficient Scotland-approved suppliers will be required to offer a workmanship guarantee. For consumers outwith the Programme, independent advice should be provided on additional guarantees and warranties to ensure that consumers are protected past the initial installation and monitoring period.

In order to ensure that consumers truly are at the heart of Energy Efficient Scotland, much of this work will be taken forward by a dedicated Consumer Protection work stream which will ascertain cross-cutting areas affecting consumers in the Energy market as a whole, with specific focus on ensuring a robust, fair and easily accessible consumer pathway as part of the Energy Efficient Scotland programme.

This will include:

- liaison with consumer and advocacy agencies to capture further feedback and insight on the recommendations within this report;
- potential to contribute to the Consumer Energy Action Plan (CEAP) which is due to be published in Spring 2019 and is currently being taken forward by Scottish Government. This will cover all aspects of consumers energy requirements including the Energy Efficient Scotland programme;
- Highlight and initiate specific scenario testing which will help to inform any future consumer journey under the Energy Efficient Scotland programme;
- Analysis of consumer protections available under current energy efficiency Schemes;
- Looking at consumer protection that will be available via the Energy Efficient Scotland offer and what protections can be offered to consumers who receive energy efficient measures via alternative methods.

Chapter 4: Focus on the Non-domestic sector

Non-domestic: a closer look

The majority of recommendations put forward in this report refer to both domestic and aspects of the non-domestic building stock. This is why the common denominator of "buildings" is used rather than "homes" or "dwellings". However, there are still a number of considerations which should be made when discussing quality assurance, skills and capacity in a non-domestic sector context and in relation to Energy Efficient Scotland.

For example, as highlighted in the Introduction of this report, much less is known on the energy performance of non-domestic buildings due to their diverse nature. Additionally, only approximately 15% of non-domestic buildings in Scotland have an EPC Assessment (30,000 out of 200,000). Improving the evidence base and knowledge on non-domestic energy efficiency in Scotland is a critical component to achieving the targets set out in the Energy Efficient Scotland Route Map. The NDEE framework which is currently in place aims to accelerate the rate and scale of energy efficiency improvements in public sector buildings however, much less is known about the wider non-domestic stock and this is reflected in the opportunities discussed and recommendations identified below.

The Short Life Working Group perspective

The opportunities in the non-domestic sector in the context of quality assurance, skills and the supply chain, include:

- Devising a way to gather existing information on non-domestic buildings from local authorities, which could be held centrally could help address the existing knowledge gap.
- Due to the diverse nature of non-domestic buildings, recognising building archetypes and appropriate measures which fit those could be beneficial in advance of the installation process taking place. There is work underway by Historic Environment Scotland to identify non-domestic archetypes for pre-1919 buildings and this work could inform the development of development of traditional building archetypes.
- The SLWG highlighted that there are no dedicated qualifications for completing energy efficiency retrofit on non-domestic buildings. This might present a challenge in conducting vetting and verification as part of the Programme but provides an opportunity to explore whether specialised training like this is needed.

Recommendations

As highlighted in the Introduction chapter of this report, the Energy Efficient Scotland Route Map outlined that the Scottish Government will consult in 2019 on plans for the non-domestic sector and set out proposals by 2020, ahead of new regulations commencing in 2021. The recommendations in this chapter take this planned work

into consideration and would suggest that Scottish Government ensure that they are aligned more widely with non-domestic energy efficiency developments.

Recommendation 17. Work to identify improvement targets for non-domestic buildings should be fed into ongoing supply chain activity.

As highlighted above, work on the energy efficiency of non-domestic buildings is already being taken forward as part of the development of Energy Efficient Scotland and will investigate and define improvement targets for various non-domestic building types on the basis of a notional building specification which illustrates ‘what good looks like’ for that particular type of building. This may identify different targets based upon building type or other relevant parameters. The work will also consider achieving improvement targets based upon action that is ‘cost-effective’ and technically feasible improvement as well as the phasing of regulations to capture an increasing proportion of our non-domestic stock..

As this work will define the levels of both improvement and activity arising from regulation of non-domestic buildings, it will be important for this output to be fed into ongoing activity on developing skills and capacity within the supply chain.

Recommendation 18. Examine whether there is a need for a qualification for individuals completing installation work on non-domestic buildings under Energy Efficient Scotland.

There is an opportunity to explore if there are any specific skills needed in installing energy efficiency measures in non-domestic buildings and whether these exist within the current energy efficiency and wider construction workforce. This work could be included in the skills and qualifications matrix developed by Energy Skills Partnership and detailed in Recommendation 7.

Chapter 5: Procurement

The SLWG identified that procurement could play a key role in driving quality, developing a skilled and competent workforce and increasing capacity. The discussions primarily focussed on Local Authority-led procurement of energy efficiency works in domestic and some non-domestic properties.

Focus on procurement

Research on the procurement of work under the current Local Authority-led Home Energy Efficiency Programmes for Scotland: Area Based Schemes, conducted by the Energy Saving Trust, identified a high number of differing approaches, evaluation criteria and procurement contracts across Scotland. This is largely dependent on the purchasing authority and contributes to a high potential for inconsistency which can lead to supplier confusion and low participation rates.

Procurement: a SLWG perspective

EES is likely to involve procurement activity in the private sector, private residential sector, and in the public sector. Each will require different support mechanisms. With regard to the public sector, the SLWG highlighted a number of challenges and opportunities within any potential future procurement as part of Energy Efficient Scotland. For example, SMEs can feel there is a lack of engagement with public sector buyers but at times also complain of having to bid for multiple contracts within a single area that may vary on specification, local authority and on-going contract management requirements. Often, small companies do not have the resources to respond effectively to these challenges. To address this, a lead-in time of 3 to 4 months before bidding for contracts might be helpful.

These challenges provide an opportunity to extend existing successes of public procurement policy and legislation to work with buyers and suppliers, particularly SMEs, participating in Energy Efficient Scotland. Overall the SLWG had one key recommendation relating to procurement as follows:

Recommendation 19. Procurement relating to Energy Efficient Scotland should comply with existing supplier-friendly public procurement policies and legislation, with a particular focus on micro-sized businesses. Scottish Government should continue work with partner organisations to bolster existing guidance to SMEs and where necessary produce programme specific guidance for Local Authorities and COSLA on procurement under Energy Efficient Scotland.

The Supplier Development Programme already provides general support for SMEs through workshops across Scotland and has worked with Energy Saving Trust

Sustainable Energy Supply Chain programme to develop a procurement guide[6] and online training modules for suppliers working in the energy efficient market. Both these organisations would be well placed to provide further support for suppliers wishing to participate in the contracts offered through Energy Efficient Scotland.

For buyers this programme-specific guidance could help streamline processes including specifications, standards and community benefits to allow SMEs and especially micro-businesses to participate in Energy Efficient Scotland tenders locally, regionally and nationally.

Buyers should be encouraged to provide adequate lead in times to allow suppliers, particularly micro-sized businesses, to bid for public sector contracts relating to Energy Efficient Scotland. This could be addressed through the publication of a Prior Information Notice (PIN) for work under the Programme and the use of 'Meet the Buyer' events.

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ANNEX A

Short Life Working Group Members

The SLWG was chaired by the Energy Saving Trust and the full membership of the Group is listed below:

Citizens Advice Scotland
Construction Scotland
Energy Saving Trust (chair)
Energy Skills Partnership
Highlands and Islands Enterprise
Historic Environment Scotland
Skills Development Scotland
Scottish Enterprise
Scotland Excel
The University of Edinburgh (ClimateXChange)
Warmworks Scotland LLP

We want to extend thanks to the following organisations who also contributed to the work of this SLWG:

Edinburgh Napier University
Federation of Master Builders
Home Energy Scotland
Insulated Render and Cladding Association
National Insulation Association
Police Scotland
SCMG
SELECT
SNIPEF
Superglass
Trading Standards Scotland
Zero Waste Scotland

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