

# DÁIL ÉIREANN

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## AN COMHCHOISTE UM GHNÍOMHÚ AR SON NA HAERÁIDE

### JOINT COMMITTEE ON CLIMATE ACTION

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*Dé Céadaoin, 10 Iúil 2019*

*Wednesday, 10 July 2019*

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The Joint Committee met at 2 p.m.

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Comhaltaí a bhí i láthair / Members present:

Jack Chambers,	Paul Daly,
Marcella Corcoran Kennedy,	Máire Devine,
Pat Deering,	Tim Lombard,
Timmy Dooley,	Ian Marshall,
John Lahart,	Michelle Mulherin.
Tom Neville,	
Thomas Pringle,	
Eamon Ryan,	
Sean Sherlock.	

I láthair / In attendance: Deputies Richard Boyd Barrett and Danny Healy-Rae and Senators Gerard P. Craughwell and Alice-Mary Higgins.

Teachta / Deputy Hildegarde Naughton sa Chathaoir / in the Chair.

*The joint committee met in private session until 2.12 p.m.*

### **Housing and Retrofitting: Discussion**

**Chairman:** I welcome members and viewers who may be watching these proceedings on Oireachtas TV to the fourth public session of the Joint Committee on Climate Action. I ask people to turn off their mobile phones or to put them on to flight mode as they interfere with the sound system. I extend a warm welcome on behalf of the committee to Mr. Michael Manley, assistant secretary, and Mr. Robert Deegan, principal officer, from the Department of Communications, Climate Action and Environment. I also welcome Mr. Declan Daly, SuperHomes programme manager, and Mr. David Flannery, SuperHomes customer manager, from the Tipperary Energy Agency, TEA. From the Sustainable Energy Authority of Ireland, SEAI, I welcome Mr. Jim Gannon, chief executive officer and Ms Orla Coyle and from the Construction Industry Federation, CIF, Mr. Tom Parlon, director general, and Mr. James Benson, housing executive.

I advise the witnesses that by virtue of section 17(2)(l) of the Defamation Act 2009, witnesses are protected by absolute privilege in respect of their evidence to the committee. However, if they are directed by the committee to cease giving evidence on a particular matter and they continue to do so, they are entitled thereafter only to a qualified privilege in respect of their evidence. They are directed that only evidence connected with the subject matter of these proceedings is to be given and they are asked to respect the parliamentary practice to the effect that, where possible, they should not criticise or make charges against any person, persons or entity by name or in such a way as to make him, her or it identifiable. Members are reminded of the long-standing ruling of the Chair to the effect that they should not comment on, criticise or make charges against a person outside the House or an official either by name or in such a way as to make him or her identifiable.

I now invite Mr. Michael Manley to make his opening statement.

**Mr. Michael Manley:** I thank the committee for the invitation. As the Chair said, I am joined by Mr. Robert Deegan who is principal officer in the Department's energy efficiency and affordability division. Energy efficiency has long been a part of Irish energy policy. It is deemed to be the first fuel. Energy efficiency measures are among the most cost effective methods for reducing emissions. The buildings sector accounts for approximately 24% of Ireland's total energy usage and approximately 10% of our overall greenhouse gas emissions. For that reason, it is very much centre stage in the all-of-Government climate action plan.

To date, the central plank of efforts to drive demand for energy efficiency upgrades has been grant schemes funded by Government and administered by the SEAI. These include free upgrades for households in energy poverty; fixed grants for a defined list of energy efficiency measures, covering approximately 30% of the total cost; and a pilot scheme offering 50% grants for people who want to upgrade to an A3 deep retrofit. The total funding allocated for these schemes for 2019 is €85 million. Overall the funding for energy in the Department's Vote has an increased from about €50 million in 2015 to €140 million in 2019.

Since 2000, more than 400,000 homes have received direct support under these schemes, mostly for lower intensity measures rather than deep retrofitting. Despite this investment, more than 80% of homes still have a building energy rating, BER, of C or lower. When compared

with other European Union, EU, countries our homes use 7% more energy and emit nearly 60% more emissions. The Government has accepted in the all-of-Government action plan the need to redouble efforts to improve the efficiency of our homes. This is central to the plan.

The plan represents a significant step-up in ambition. Indeed, it is not just a step up, it is almost a new staircase. It sets out, for the first time, 2030 targets to reduce greenhouse gas emissions and also puts Ireland on the right trajectory towards net-zero carbon emissions by 2050. The plan also sets out new governance arrangements that will be put in place to provide effective oversight of implementation of the plan. This very much aligns with the relevant recommendations from the Oireachtas and the Citizens' Assembly.

Regarding targets for retrofitting homes, the climate action plan has identified a target of upgrading 500,000 homes to a BER of B2 or cost optimal equivalent, by 2030 as well as the installation of 400,000 heat pumps, to replace older heating systems. This is an enormous step up and a real challenge. The plan identifies a range of actions that will drive achievement of the retrofit target. A central commitment in that regard is the development of a new retrofitting delivery model, which will group retrofits together to achieve economies of scale, leverage private finance, and ensure easy payback methods. The savings on energy bills from using less energy can help fund this, while homes will be warmer, produce lower levels of emissions and be better for us all.

Other measures identified include reviewing and redesigning the grant schemes to ensure alignment with Government objectives and value for money and the introduction of improvements to the BER certificate to provide more guidance to homeowners. In addition, all buildings undergoing a major renovation, greater than 25% of the building envelope, must bring the rest of the building up to minimum BER of B2 or cost optimal equivalent. Interactive tools and reports for homeowners will also be developed to identify the impact of energy efficiency upgrades. There will also be development of the supply chain and training and, crucially, strengthened regulatory and fiscal measures.

Achievement of the target will be supported by Project Ireland 2040 with a financial allocation of €3.7 billion to 2027. This is clearly a significant level of Exchequer investment, but the Government and Ministers have repeatedly acknowledged this will not be enough to meet the level of retrofit required. That is why it will be important that we move to establish a new retrofitting delivery model, which will support people to make the decision to play their part in addressing climate change by investing their own money in upgrading their homes. The plan sets out a range of actions to identify additional financing options, including affordable loan schemes that will complement the new delivery model and fill the funding gap. The plan also commits to the introduction of enhanced delivery models and supports for households with lower incomes.

We are at the start of implementing a climate action plan. It is an enormous task. Significant progress has been made but we have more to do. We must now learn from what has worked in the past as well as the experiences in other jurisdictions to design the additional interventions required to meet the Government's new level of ambition for energy efficiency and carbon emissions.

We are very happy to be here and we will work as best we can with the committee to answer any questions.

**Chairman:** I thank Mr. Manley and I call Mr. Flannery from the Tipperary Energy Agency.

**Deputy Timmy Dooley:** Are we not going to do the questioning-----

**Chairman:** No, I am going to let all of the witnesses give their opening statements first and then the members can come in to ask questions of whomever they want.

**Mr. David Flannery:** I thank the Chair and the members of the committee for the opportunity to present today. Declan Daly and I represent the Tipperary Energy Agency, a non-profit social enterprise with 26 staff supporting the low-carbon energy transition. Tipperary Energy Agency has been successfully retrofitting homes throughout Ireland since 2005. SuperHomes Ireland was created by the agency in 2015 with the aim of becoming a one-stop shop for home energy retrofit. The European Commission and Parliament have identified the importance of one-stop shop solutions where homeowners can get advice, access to contractors, quality control, grants and finance, all in one place. By the end of 2019, SuperHomes will have worked on more than 160 deep retrofit projects to BER A3 standard or better, and a further 59 homes to B2 standard.

The increase in carbon taxation and the target of 500,000 homes to be retrofitted to a minimum B2 standard, as set out in the national climate plan, will have a profound effect on how citizens approach energy in their home. A high-quality retrofit product, on the scale proposed, will require significant investment in developing skills and standards in the sector. This can be supported by a predictable long-term funding programme, which will also help with disseminating a clear message to the public and allow people to plan for their retrofit. Financial packages, with low interest rates, tailored towards deep renovation will be necessary to build significant scale in the market.

Not only does deep renovation improve the long-term health of occupants, decrease energy costs and reduce carbon emissions, it produces high-quality job opportunities. The deep renovation of one home supports an average of one job per year in terms of direct, indirect and induced jobs. The SEAI deep retrofit pilot programme has demonstrated that there is an appetite in the industry. However, major skills shortages are already restricting delivery of retrofit projects and driving up costs. Addressing this shortage of skills will be key to maintaining a high-quality retrofit product that produces positive connotations in the public mind, thereby encouraging uptake. Our model involves working with local engineers and contractors to build capacity in that area and provide technical and funding support to these projects. We will be working with 29 separate contractors in 2019. This approach and the approach taken by other independent energy agencies and community programmes will continue to be an important component in capacity development and industry training. However, a widescale roll-out of deep renovation is fully reliant on an escalation of training programmes and standards, including new standards in training for heat pump installation.

A year-round, predictable, funding programme offers assurances to contractors, engineers and tradespeople that it is worthwhile to focus their resources towards deep renovation and will encourage businesses to enrol their staff in high standard training programmes. At present, deep renovation programmes heavily concentrate project delivery in the period from June to October, creating a virtual standstill in delivery during the months between November and March. A long-term programme will address this resource imbalance faced by contractors and service providers. A complicated application process and short timelines for delivery create uncertainty and risk, which restrict market development and ultimately make Ireland's targets more difficult to achieve. In our view, the State should prioritise de-risking renovation rather than increasing financial incentives to unaffordable levels. A reliable funding model will also make the dissemination of grant supported solutions to the public much more straightforward,

with the benefit of greater citizen engagement in the transition.

Low cost finance tailored towards deep renovation will be a theme that will emerge across the board today. From our direct engagement with homeowners, it is evident that the finance offer has to make sense to members of the public at an instinctual level. The question is whether they will be happy to upgrade their homes from a D rating to an A rating, for an additional €2 to €4 per day or €100 per month for ten years, and repay the capital investment by the end of this term. If we want to scale the market, we need affordable financial packages for homeowners, tailored towards deep renovation. Successful schemes, such as the German KfW renovation programme, offer finance between 2% and 4%. A long-term, predictable retrofit programme will undoubtedly create a more favourable lending environment.

**Mr. Jim Gannon:** Our insight into the market is based on upgrading approximately 400,000 homes over more than 15 years. This is of a total stock of 2 million so it is a significant proportion. This has been at a range of levels, predominantly shallow retrofit. It is important that we begin to understand these distinctions.

In terms of the challenge to 2030, whereby we speak about 500,000 homes, right now through our programmes and the obligated parties, which are the energy supply companies, we can track upgrades and approximately 50,000 people per annum complete energy upgrades to their homes. This does not include others who do not approach the grant programmes or the obligated parties and those who perform home improvements but do not seek a grant. In terms of the scale of activity, we need to bring these people to deeper interventions and facilitate them.

We need to understand what we have in the building stock. There are approximately 2 million homes in Ireland, with approximately 1.7 million of them occupied according to the most recent census. Slightly less than 10% of these are in public ownership or funded by the public purse through approved housing bodies. This becomes very important because if we understand the status of these homes and have a long-term plan for retrofit, we can create an aggregated portfolio that could be easier to finance. Looking at this portfolio can allow us to think about it as a battery we can access in an economic downturn, retaining skills and jobs distributed throughout the country and taking advantage of lower cost construction during lean years. Part of the plan should be looking at the opportunity of addressing a downturn.

More than 800,000 homes have building energy ratings, BER. The key point is to look at where the general spike in ratings is. Most homes are rated at the lower end of C and the upper end of D. When we talk about a B2 level of ambition we need to understand where we are coming from and going to. Interestingly, a spike is developing in A2 and A3 ratings as a result of our highly advanced building regulations. That spike will continue to grow as we deliver newer houses. The decline in the number of D and E ratings, which are yellow and orange in the graph, is largely because of the retrofit we have achieved. Retrofit generally attacks this basket and we can already see the impact of the measures we are taking.

In terms of the performance to 2030, our deep retrofit programme seeks to examine the technical, financial and supply chain challenges to getting our housing stock to where it needs to be by 2050. It also looks at houses that are poorly performing. We are looking at a change from an F rating up to an A rating. If we consider where the housing stock in Ireland is on average, which is somewhere between the ratings of C and D, and we know the ambition in the climate action plan is to reach a B2 rating, it is a different size of step we are talking about. It has different technical and financial asks. This is something that is very important for all of us in the climate space to understand and communicate consistently to people. We are not always ask-

ing people to put €50,000 or €70,000 into their home. We are asking something different. We need to be clear about this and rational in our economic planning for it. Interestingly, we have upgraded a home to deep retrofit for €20,000. We have also upgraded a home for €125,000 because there is no typical Irish home or typical performance. The average is slightly lower than €50,000, just to give a perspective.

In terms of aggregation and finance models, a one-stop shop is the Holy Grail. What is absolutely factually correct is that there is a range of one-stop shop models, with various funding methods, financing propositions for the consumer, back end funding, whether a national bank or the European Investment Bank with alternative investment funds, and various people who catalyse this activity. In certain countries, it is a combination of Danfoss and VELUX - purely private sector entities - bringing something to the market. In other countries, such as Ireland, there is a mixture of private sector and not-for-profit organisations bringing something to the market. In other countries again, it is purely delivered by a national or regional local authority as we traditionally understand them. What is important here is that there is no silver bullet that we can pluck off the shelf and say that is what we need to do. We need to think carefully about the risks involved, how we communicate to people in such a way that they want to do it and how we create the supply chain and the financial ease with which it can be executed.

I do not want to underplay the role of skills in the supply chain. Tipperary Energy Agency has already said the skills shortage is a key element that is stifling the delivery of homes in the marketplace. Separately, it is driving up costs. We need volume to drive down costs. We also need more skills in the market to ease delivery and get more volume through the pipeline. We have been working with the Department of Housing, Planning and Local Government, the National Standards Authority of Ireland and Wexford and Waterford Education and Training Board, and supporting others indirectly, to make sure those skills are provided but it is a challenge for us. If we experience an economic downturn, what will be needed to come through it is the skill set and volume I mentioned.

**Mr. Tom Parlon:** I thank the Chairman and committee members for the opportunity to come before the committee. The climate action plan places a huge responsibility on the construction industry to deliver 500,000 retrofits in our existing housing stock. Our message today is very simple. We are saying the industry will step up, expand our capacity, invest in the required technology and develop workers' skills and competencies in this area. Of course, there is a "but". This will only be with collaborative engagement with successive Governments over the next decade, perhaps with Deputy Dooley as Minister at some future time. Obviously, it is a long-term plan.

**Deputy Timmy Dooley:** I might be looking for one of those jobs.

**Mr. Tom Parlon:** We are currently front and centre in the delivery of the Government's Rebuilding Ireland strategy, its social housing commitments, its €116 billion national development programme, in building out the massive foreign direct investment in Ireland and Project 2040. We are currently stepping up to deliver these ambitious strategies. We will also do so for the climate action plan.

However, it is important to warn the committee that delivering the climate action plan in addition to these strategies will require innovative programmes to help industry develop its capacity to deliver the deep retrofit programme. Certainty, in terms of an implementation strategy and grant availability, is essential so that the hundreds of SME construction companies that will deliver the retrofit programme will make the significant upfront investment required.

Achieving this ambitious strategy will require more co-ordination with industry and across Government agencies than heretofore has ever been achieved in this jurisdiction. For example, in 2016, DKM and Solas identified a potential demand for an additional 100,000 workers in the industry up to 2020. Since mid-2013, an additional 1,000 people per month have joined the industry and the demand for construction activity in infrastructure and housing continues to increase dramatically. The deep retrofit will require further expansion of the construction workforce at a time when we are approaching full employment.

Currently, the industry is partnering with Solas, the Department of Education and Skills, the Department of Business, Enterprise and Innovation, and through the construction sector group, to increase the numbers of people working in the industry. However, it will be critical that the Government co-ordinates these actions and allocates resources committed to in the human capital initiative to developing and dispersing deep retrofit competence and other climate change techniques across the 45,000 companies operating in construction.

The climate action plan clearly identifies the significant scale of the challenge and how Ireland will achieve its 2030 targets for carbon emissions and key actions to achieve a net zero carbon emission score by 2050.

The Construction Industry Federation, CIF, worked closely with Engineers Ireland on its recent report, State of Ireland 2019: A Review of Housing Infrastructure in Ireland. We identified a clear roadmap, including financing skills, that should be put in place. Co-ordinated public investment in infrastructure is essential in delivering our new housing policy and it will be likewise for this particular programme.

The industry welcomes the ambition over the next 30-year time horizon. To have any chance of success, we need to start to make a series of concrete actions today. This will be challenging considering the 183 actions outlined in the plan. Action 43, for example, outlines the need for an analysis of existing retrofit actions and the identification of the optimal mix of deep and medium home energy efficiency upgrades across the country. This analysis will only commence in quarter one of 2020. This means that the delivery window for 500,000 retrofits will be closer to eight and a half years rather than ten.

The CIF also believes that, to be effective, any retrofitting scheme must address houses in their entirety from an energy efficiency perspective. If the scheme has too narrow a focus on single aspects of improvement, it will not deliver optimum results for the consumer, the industry, the economy and of course the environment.

As I have said this will require a huge amount of co-ordination between industry and several Government Departments, including the Department of Housing, Planning and Local Government, the Department of Finance, the Department of Communications, Climate Action and Environment and the Department of Business, Enterprise and Innovation. We are suggesting that an advisory group with industry, the Sustainable Energy Authority of Ireland, SEAI, and the Department of Communications, Climate Action and Environment is established with a view to implementing and monitoring against specific targets. I cannot stress enough the importance of giving certainty to construction companies so that they know there is a pipeline of work ahead which will encourage them to make the funding that is necessary for upskilling and so on.

In terms of developing the required certainty, it is worth noting that the existing pilot programme for deep retrofit is due to expire this year. Ensuring the SEAI is fully resourced to process applications for the current pilot programme is a necessary confidence measure. Industry

responded when the pilot programme was announced with many investing in their capacities to deliver retrofit activity.

The recent example of the home renovation incentive shows how effective these sorts of measures can be for the industry, Government and citizen. Irish homeowners have spent more than €2,471 million in total carrying out 147,349 home improvement projects over the past four years. If the incentive is there, the capacity of the industry to respond is also there. It shows what can happen with the correct alignment between consumer, Government policy and industry's capacity.

The retrofit scheme has the potential to underpin our efforts to build a stable and sustainable construction industry. This stream of work, and that included in the national development plan and Project 2040, can be used to give comfort to young people and their parents that there are viable long-term careers in construction. The Government, with industry, should also examine the potential opportunities for the development of apprenticeships in areas such as deep retrofit and the message that there are stable and sustainable careers arising in the industry should be communicated to young people.

The retrofit scheme could help resolve the growing divide between Dublin and other regions which is a major threat to our economic and societal well-being. I heard the Tánaiste talking yesterday about concerns over a hard Brexit and the potential loss of 50,000 to 60,000 jobs. There is certainly scope within the retrofit scheme to provide significant bundles of work for regional construction companies and these companies are dispersed throughout the country and across every community in the country. Having contractors delivering retrofit in rural and urban areas would provide an economic lifeblood to rural and regional towns and villages.

**Chairman:** I thank Mr. Parlon. We are now going to open the discussion up to the members. Fianna Fáil, Fine Gael and Sinn Féin have ten minutes each. I will start with Deputy Dooley and ask members to let me know if they are sharing time. I might indicate when three minutes has passed so that we can get answers.

**Deputy Timmy Dooley:** I will be sharing with Deputy Lahart. I thank our guests for their presentations because they are helpful. From our perspective, we fully appreciate that, if we are going to make a meaningful impact on our carbon emissions, we must deal with the heating sector and home heating in particular so what our guests have talked about is relevant.

My understanding is that much of the retrofit programme is concentrated between May and October. That has an impact on the skill sets of people who want to do this on a year-round basis. The activity is only in a relatively short period of time so people cannot concentrate on that work alone.

What is the long-term proposal that will come from the pilot deep retrofit programme? Will it become a full, national programme, or has the pilot project ended? Is the Department taking applications this year or has it come to an end?

Will the witnesses try to give us some indication as to what level of support will be in place for homeowners? This is the big issue. Mr. Manley talked about the average cost being approximately €50,000. Constituents glaze over when one talks about €50,000, €40,000 or €30,000. Many people I speak to are coming to the end of their mortgages, or are at the end of them, so it is an older home, their lives have changed and their kids are in college. There is not another pot with €30,000 to €50,000 there to spend on this kind of programme. It is not that people do

not want to do it but I certainly get the sense that people, in general terms, cannot and will not be able to afford it.

When Mr. Manley talks about green finance, it is going to require significant backing of the State. Many people's creditworthiness has been challenged through the past ten years and, if the same rules apply to normal drawdown on finance or normal sourcing of loans, there will be many rejections. Could Mr. Manley talk to us a little bit about ideas the Department has about that? We are really trying to encourage the people who are in these homes to do the work and buy into the programme. That is why we must be helpful in guiding them early.

**Chairman:** Deputy Dooley is three minutes into his time. Does Mr. Manley want to start by responding to those points?

**Mr. Michael Manley:** On the question of finance, the first actions are Nos. 48 and 54 in the climate action plan which involve setting up taskforces to look at how we design models of financing. That is obviously going to involve a grant level support. It will involve a level of very low cost financing. We have AIB bringing low financing options to the market. How can we channel that right through the retail system and get it to the distribution system? Does that involve a level of State guarantee which would mitigate the issue of risk? Our own sense is that we will have to bring the cost of financing down to as near to zero as humanly possible. It also must be long-term financing so people can phase it in over time and see the advantage in it. It is not going to be easy to do it but we have to do it. We have seen examples on the Continent and they have been referenced by the Tipperary Energy Agency in terms of what is on there.

In terms of the time of works, the allocation of work is around the Estimates cycle. At the end of the year we know what is coming in the following year and then we notify it to the SEAI and it maps out the programme for the following year. That is something which we need to take on board, in particular as we scale the programmes and get them to a much larger size. It was also mentioned by Tipperary Energy Agency. There is no particular restriction on the time of year the work is done but, practically, if people are going to recoup the grant, they will have to make their claim through the contractor and provide the receipts and invoices to the SEAI and the Department by year end. Typically, we clear off our accounts in the last week of November and the first week of December. That all acts back and narrows down the time. It is a fair point on that one.

The most difficult question is the long-term position on the pilot programme. It was made very clear that it was a pilot programme. The objective was to establish what the supply chain is like; how we can develop it; how we could mobilise people to do it and what works. As Mr. Gannon said, no two houses are the same so one must look at how one manages that. The pilot phase should come to a conclusion at the end of this year and then it has to be reviewed and a decision must be made on which bits work and which bits we must improve.

**Deputy Timmy Dooley:** Are applications still being accepted?

**Mr. Michael Manley:** The short answer is that I do not know. The applications are made to the SEAI. Heads are nodding, so it is.

**Chairman:** I will let Mr. Gannon in to respond if Mr. Manley does not have more to add.

**Mr. Michael Manley:** No, that is about as much as I can say.

**Chairman:** I am conscious of the time. We must try to get through it within ten minutes.

**Mr. Jim Gannon:** It has been up on our website since the start of the year that applications close this year on 17 July, which is another week. Anyone advising people in their homes or anyone who has gone to the website will know that is the date for the end of this year. It is traditional that we have a closing date for the programmes.

I will quickly pick up on the other point, which relates to finance. I will go back to the slide where I showed what deep retrofit means and what is involved in moving from where the average house is to B2. We are not asking everyone to look at €50,000 or €100,000. What we are saying to people is we need to collectively understand that a B2 level retrofit is something smaller than that. Looking at the cost optimal study we completed for the Department of Housing, Planning and Local Government when it was looking at the renovation regulations, that could be €15,000, €20,000 or €25,000, which is still a lot of money. We still need to get over that hump.

A key point in someone's decision-making cycle will be the purchase of a house. It is perhaps the only point in time when one is talking about an even bigger sum. In Europe, they are now looking at green mortgages where it is being considered whether finance could be facilitated with a lower mortgage rate for a better house. Domestically, the home renovation incentive has worked and we need to look at tax rebate in the UK. They are also looking at stamp duty rebate and whether that would incentivise an upgrade at the point of purchase.

In Ireland, we have tested finance for retrofit with the credit unions, some of the high street banks and an employer model with a number of different employers, which operates like the bike-to-work scheme whereby they would finance and work through the salary on their side of the net. No one has been static on this. Reflecting on Europe, in no jurisdiction do they have a single offering that works. It is important for us also to understand that in Ireland a single offering may not work, and that a certain demographic might always need grants. For some, it might be at the point of mortgage and for others it might be taxation. We need to think of a blend, but we do not have the answer yet.

**Chairman:** We have a few minutes left in the slot. Does Deputy Lahart wish to contribute?

**Deputy John Lahart:** I will ask a couple of quick-fire questions. Could Mr. Manley indicate whether there are solar panels on the Department's building?

**Mr. Michael Manley:** No.

**Deputy John Lahart:** Are there heat pumps?

**Mr. Michael Manley:** No.

**Deputy John Lahart:** How is the heating generated in the Department's building?

**Mr. Michael Manley:** I should come back-----

**Deputy John Lahart:** It is an easy question. I am not trying to trap Mr. Manley. I am just asking him a question.

**Mr. Michael Manley:** We are leaving the building in about two and a half years.

*(Interruptions).*

**Chairman:** Could members allow Mr. Manley answer the question?

**Deputy John Lahart:** He is eating into my time now.

**Mr. Michael Manley:** We are moving to a new building in Beggars Bush and it will be an easier building.

**Deputy John Lahart:** That is grand. Does Mr. Parlon have solar panels on his building?

**Mr. Tom Parlon:** No.

**Deputy John Lahart:** Is there a heat pump?

**Mr. Tom Parlon:** No.

**Deputy John Lahart:** Is there an energy rating on the building?

**Mr. Tom Parlon:** It is very poor. We are just about to make changes. If the Deputy were to pass by the canal, he would see that we are about to sell part of our land and upgrade.

**Deputy John Lahart:** I am not trying to set people up.

**Mr. Tom Parlon:** In 12 months' time, hopefully, it will change.

**Deputy John Lahart:** We are all saying 12 months' time.

**Chairman:** Could Deputy Lahart let the witnesses answer the question?

**Deputy John Lahart:** Okay.

**Mr. Tom Parlon:** We would appreciate if there was some support for that.

**Deputy John Lahart:** Grants. Okay.

*(Interruptions).*

**Deputy John Lahart:** I simply asked the question - I am very obliged that the witnesses answered - to give the scale of the challenge that faces us. The Government's climate action plan refers to 300,000 heat pumps. We know from our field visit to the Tipperary Energy Agency that it is not just about replacing the heat pumps. If I was to get a heat pump in my house, because of its age, I would have to replace all the radiators. Multiple items would have to be replaced; it is not just a case of replacing the boiler with a heat pump.

In other committees the time ticks down in terms of the amount allocated to the questioner rather than the combined question and answer time. I have limited time. Could the witnesses comment on the challenges of retrofitting 1970s and 1980s apartment complexes?

One of the most impressive pieces of work we did was the field trip organised by the Tipperary Energy Agency and Tipperary County Council. As far as I know the agency provides a one-stop-shop, so if I want to retrofit my house I go to the agency, get the BER organised, it finds out what range of retrofit I want and it provides accredited engineers and companies so that we do not get cowboys. We need to consider a similar model either on a county-by county basis or at national level. As Deputy Dooley said, one of the greatest challenges that faces us when we decide to retrofit is that we get bamboozled with the volume of information coming at us. Second, because of the amount it will cost, people are entitled to the best advice and not to have a cowboy or cowgirl come in and fleece us for a low-rate job. What are the thoughts of the witnesses on that?

**Mr. David Flannery:** That is the crux of the matter as far as we are concerned. It is not okay for a contractor to roll up to a homeowner and promise the sun, moon and stars. It is a little more complicated than that. What we would recommend through the one-stop-shop model is what has been outlined in terms of the engineering advice. The one-stop-shop would then contract the contractor, bring it in, make sure the tender is right and that the works are completed to the satisfaction of what was set out in the plan at the start.

**Deputy John Lahart:** For a fee.

**Mr. David Flannery:** Of course. There are always going to be costs associated with the work but the value to the homeowner should be evident right from the outset.

In terms of the reference earlier to a costing of €50,000, that is probably an average of what we see, but there is no one particular house; there is a multitude of houses. The price may go from €30,000 to €70,000 or even beyond that. That is an eye-watering sum for anyone to consider, so the transition must be explained to the homeowner in a clear way. People must know what they are going to get and have confidence that what has been recommended will deliver it. We can see from our analysis of work that we have carried out that 60% to 70% in savings is possible. When one does it properly, one can see the long-term payback. One can work it out. When one blends it with the right type of financial offer and the closer one brings that to ten or 15 years the more sense it will make to the public. The message must be communicated very clearly by an independent professional that is trusted. That is our view in terms of how we go forward.

The pilot programme has been very successful in terms of switching contractors and others onto what it means to deep retrofit but it is a pilot and we acknowledge that. We are looking forward to a scheme that is year 'round. The timescale for delivery is March-April to November-December, which may be extended, but they are the confines in which we are working. What we do find with those constraints is that contractors who are trying to dedicate themselves to retrofit in the long term let go staff or take staff on a part-time basis and that will limit their capacity to deliver. Across the board, we see a difficulty in committing to deep retrofitting without there being a predictable programme for both the contractor and the homeowner.

**Mr. Jim Gannon:** The cheapest deep retrofit completed in the pilot so far was an apartment and it cost slightly less than €20,000. The case studies will be out shortly.

**Deputy John Lahart:** Was it a block of apartments?

**Mr. Jim Gannon:** It was one apartment in a block, as distinct from the whole block being done and one being taken out.

When Marie Donnelly was in the European Commission she stated that Ireland is unique in that we have a register of contractors for our better energy homes programme. It is something that other jurisdictions have started to mimic because it has that quality. We know they are tax compliant and that they have insurance. If they do not perform under our inspections, they get removed from the register. That is a mechanism Ireland is very practised at and one we encourage.

**Deputy Tom Neville:** I agree with Deputy Lahart. I visited Tipperary Energy Agency and was very impressed by what it does. As with the roll-out of broadband in local authority areas, it is a question of having teams within the local authorities, or bolted onto them, so the arrangement can work and each idiosyncrasy in each area can be examined. One could deal with things

in smaller packages for the consumer.

With regard to retrofitting, and staying on the subject of smart finance, has the Department considered any innovative approaches related to repaying through energy bills or property tax? If so, when will they be launched? Is there any talk of timelines?

My next question is also for the Department. Could the European Union play a greater role in accelerating the widespread provision of low-cost green finance? It has been said there are myriad options in Europe. Let us boil it down to Ireland's current economic position, standard of living and cost of living. I would be grateful for answers.

**Mr. Michael Manley:** The very first point the Deputy raised was on the delivery model. One of the first actions of the climate action plan is setting up a task force to consider the delivery model for what we want to do. Taking the point others have made on how we deal with apartment blocks, bring things together and deal with the issue of quality, on the Continent some of the groups give guarantees of 35 years regarding energy-efficiency projects. Thus, if someone does energy efficiency work on a house, it is guaranteed for 35 years. How we do that without locking out the small contractors, who will not be able to get the bonding and insurance related to finance of the level in question for that period, will not be not easy.

With regard to smart finance, the relevant action in the climate action plan is No. 54. This has been embarked upon. We have engaged with NewEra and SBCI. How can we put together a package that combines State support and cheap EU money and can cascade down to the retail level? There is not much point in doing so unless we get the delivery model right. If we put too much money into the system too soon, it will simply result in an escalation of price. We have, therefore, got to create the delivery model for a very expanded programme so that as the money comes in, it will work. Otherwise, money will be put into the process with little or no gain.

**Deputy Tom Neville:** I refer to energy bills. If someone is going to opt for a retrofit, there will be an electricity supplier.

**Mr. Michael Manley:** I apologise as I forgot to answer the Deputy's question on that. We are considering that. It has been tried in the past in a number of pilot projects - Mr. Jim Gannon referred to them already - whereby companies became the conduit. Credit unions, for example, provide the finance and the company channels it to employees, who then repays it as part of the salary arrangement. That it is fine when the amount is relatively small. If I am borrowing only a few thousand euro and walk out on the company, it can be absorbed within the system.

**Deputy Tom Neville:** Can this be done directly with a homeowner? The homeowner could have a relationship with a utility company and credit union. Over the period of the bill, it would balance itself out and come into profit for the homeowner.

**Mr. Michael Manley:** It is part of the modelling to be done under the climate action plan to create a process whereby homeowners, through their own energy companies, can do as described. On Monday, we noted that, in the farming sector, SSE Airtricity is doing a deal with Glanbia whereby farmers are funding the installation of solar equipment, whose generated energy can be spilled back into the system. That kind of tie-up is very much part of the future. I cannot say it will be effected in six or 12 months.

**Chairman:** Did Mr. Gannon want to contribute briefly on that?

**Mr. Jim Gannon:** It is not alien to Ireland in that, after the energy crisis at the tail end of the

1970s, that type of system was brought in and people had insulated attics as a result through the energy supplier. Let us consider the sale of appliances to those who consumed electricity at a point of time in the past. That type of system exists. In a couple of countries right now - links in our submission will send members in the right direction - this method is being tested again. In Ireland, there was not an appetite and people did not believe it was deliverable in 2013 at 2014 because of a lack of access to back-end finance. They did not believe they would get finance cheaply. The energy suppliers are also in a 1% and 2% margin business. At the time in question, it would have been hard for those concerned to proceed but it is definitely an option that works in other jurisdictions and one that will form part of what has to be considered.

**Senator Tim Lombard:** Can I ask about the skill gap? We are proposing to build up to 20,000 new houses every year. The Government's target for 2030 is to have 500,000 houses or units retrofitted. There is an insufficient number of tradesmen with the ability to deliver the projects on time. How does the CIF believe the skills gap could be bridged? What do we need to do at national level and through policy to ensure we have the tradesmen required to reach the target of 20,000 or 25,000 units per year but also the target of 500,000 in the next 11 years?

**Mr. Tom Parlon:** That we have been hiring an extra 1,000 people per month for nearly the past six years means there has been considerable expansion. Of those who emigrated during our deep recession, those who chose to come home are largely back. There are still people coming back. There is still considerable demand because of people coming in from all over Europe. Just recently, the Department of Jobs, Enterprise and Innovation extended work permits to workers from outside Europe. It lifted the restrictions pertaining to those with many of the construction skills to allow them to come here. It is not an immediate solution.

The challenge we now have is to go into the schools. That is what we are doing ourselves. We are planning to enhance the campaign through the construction sector group with the support of the Department of Education and Skills and the industry. I refer to a 50:50 funded scheme to encourage young people to consider construction again as a sustainable career. One reason they did not is that it is still sore in people's minds that individuals, including those who had not even finished their apprenticeships, just lost their jobs overnight and were forced to emigrate. If it is certain that there is to be a lengthy retrofit scheme and that the capital programme will continue, given an economy that remains solid, construction will be a long-term career for the future.

**Senator Tim Lombard:** Is Mr. Parlon happy with the current number of apprenticeships in the system?

**Mr. Tom Parlon:** The deficit, or black spot, is in what we call the wet trades, such as plastering and block laying, and the typical house-building trades. A large number of plumbers and electricians are coming through the system because our mechanical and electrical sector is very strong. We are building for foreign direct investors and we are building data centres and pharmaceutical plants. We are not just building them in Ireland but all over the rest of Europe. That pipeline is very good. The apprenticeship scheme is being considered in terms of its length but that is certainly a very weak spot. New technology, off-site production and so on will probably help. Many are attempting to engineer block laying and bricklaying out of current builds.

**Mr. David Flannery:** We certainly experience that with our programmes. There is a lack of qualified engineers and associated training programmes. One might look to the Austrian model, which has been very successful in reducing carbon emissions by more than 45%. Austrian plumbers have to train in renewable technologies. More concerted market intervention is

probably needed. It is worth remembering that we are in a construction boom but we are also in a declared climate emergency. With carbon tax signals and a likely increase in the price of fuel down the line, the signals are suggesting a diversion from the addition of a sun room or converting the attic to investing in home retrofitting. There will be a movement of skills and labour to more important things.

**Senator Michelle Mulherin:** Regarding the budget for the warmer homes scheme and the warmth and wellbeing pilot scheme, how much money has been allocated and how much has been spent? I am asking on account of complaints I received, in both April and June, over delays being experienced by contractors in having the work they carried out audited. It was taking up to 13 weeks. They had to wait even longer for payment. Where jobs had been allocated to contractors, I understand that it was communicated by the SEAI that a hold was to be put on the completion of these jobs. Contractors that had built up capacity to deliver the work at the request of the SEAI had to let people go and were put in a very tight cashflow situation while householders, who we are rightly encouraging to avail of these schemes, did not know where they stood.

**Chairman:** The Senator is very clear. I ask Mr. Manley to respond.

**Mr. Michael Manley:** I will ask Mr. Deegan to talk in detail about the scheme but in general, this is a success. The growth in demand for those schemes has been far more than we could have anticipated. People have engaged, which is a positive thing. It feeds well into going forward. In terms of financing for the year, about this time every year, we do a mid-year review of what is and is not working. These things mostly came out of the C4 subhead of the Department. There are 14 different programmes underneath that. Some will go quicker while others will go slower so we will rejig that to make sure there is sufficient funding in those programmes for this year. Mr. Deegan might take us through what we have spent so far.

**Mr. Robert Deegan:** In terms of the funding that has been allocated, it is about half of the full-year allocation, which is about €24 million. As approximately €15 million has been spent so far, there is still money in the pot. As Mr. Manley said, there will be a rejig to make sure that over the full year, any work that has been allocated will have the required capital.

**Senator Michelle Mulherin:** What of these complaints? If the budget has not been spent, how are these delays in payments to contractors happening? We are talking about a skills shortage but contractors have taken people on because of these schemes and then find they are not getting paid, even under the terms the Department agreed with them and there are delays. Work is being put on hold.

**Mr. Robert Deegan:** Work that is done this year in line with the allocations will be paid for.

**Senator Michelle Mulherin:** Could Mr. Gannon answer because it is the SEAI that administers this?

**Mr. Jim Gannon:** I am quite happy to answer that question as I know it had not been asked earlier today. We communicate with the supply chain all the time because those contractors are our contractors. They are on our panel and we employ them to do jobs. Payments sometimes take time. We are put to the pin of our collar this year. Interest in all our programmes is up. What has been articulated to us has been that due to uncertainty around some of the allocations - uncertainty that is now decreasing - there was a-----

**Senator Michelle Mulherin:** Does that relate to the Department? Was there uncertainty

around allocations as regards the Department?

**Mr. Jim Gannon:** Due to uncertainty around allocations in our communication to the contractors, they said there was a risk that they may have to let people go. We said we would work to clarify all that with the Department. As articulated by Mr. Manley and Mr. Deegan, there may be reallocation around subhead C4 and options will be considered to ensure that, as Mr. Deegan said, allocations this year will be paid but it is-----

**Senator Michelle Mulherin:** Does the SEAI have to cut funds itself for the personnel who go out and audit the work carried out by contractors? Has SEAI reduced funding or personnel in its audit?

**Mr. Jim Gannon:** I do not quite understand the question.

**Senator Michelle Mulherin:** As I understand it, when the work is completed, somebody must audit it to sign off on it.

**Mr. Jim Gannon:** Yes, someone absolutely must do so.

**Senator Michelle Mulherin:** Have resources been reduced in that regard, leading to delays in the work getting signed off on and, ultimately, contractors getting paid?

**Mr. Jim Gannon:** We have a managing agent with whom we work to inspect across all of our programmes. We must constantly balance resources as to whether personnel will go and inspect under the Better Energy Homes programme, the Better Energy Communities programme, the EXEED programme or the warmth and well-being or warmer homes schemes. Again, given the upsurge in activity, we have found that there has been a delay in getting to it with regard to all programmes, so it is not about a single programme. There has been a bit of delay with all programmes, which is because of the success of the Citizens' Assembly, this committee's report and people's interest in that. As there is an increased volume, it is simply a matter of us catching through a dramatic increase. Take the example of electric vehicles, where there was a fourfold increase in the first quarter of the year. People are far more active in respect of this so we are trying to catch up with that.

**Senator Máire Devine:** I am talking about retrofit that is purely residential. There is the shallow one and then there is the deep retrofit. Could I get a breakdown of the figures for shallow retrofit versus deep retrofit? Some colleagues have rightly said that when people hear that it might cost €40,000 or €50,000, they shy away. It is almost like breaking it down into chunks and explaining to people that shallow retrofit is the road to it. Not many people would have the entire amount to do their homes. Given that the most inefficient houses in this State were built before 1979, which was when the idea of energy saving and insulation first came in, I note that 50% of our housing stock is pre-1979. Obviously, these houses are the most expensive ones to retrofit. They involve the deep retrofit about which we are talking. As 72% of homes in rural areas are detached houses, we are talking about large areas. Our homes are larger than the European average. We have more rooms per person. We seem to live in luxury but in the cold. It is a bigger area in its entirety to retrofit, not just by unit but by square acreage - whatever measurement is used - so we have more to retrofit. Given the really prohibitive costs, which most people would say that they cannot afford, the green economy, greening our environment and electric vehicles, those demands are almost coming at us because we are being made to feel guilty about what we are doing. Sometimes that is contraindicated in terms of people taking responsibility and getting something out of it for themselves because there is a feeling of pun-

ishment and dipping into our pockets once again. We are only shortly out of a massive recession that did a lot of damage to people in this country. Would it be worthwhile prioritising the interventions, whatever they may be - shallow or deep retrofits - for pre-1979 homes given that they make up 50% of homes in this country? Another issue is doing it chunk by chunk focusing on attic and roof insulation with the draughtproofing. We did it previously in the 1980s. Other issues include low energy lighting, the lagging of water pipes and tanks and the shallow retrofit that is relatively affordable and much more easily grasped by people.

For a while, I have been very curious about the material used for insulation on the exterior - what is known as wrap-around. We saw the horrific fire hazards shown in the Grenfell Tower fire. How combustible is that material? Have we figured that out? It is not just about homes. There was a fire at a hospital in Melbourne last week that involved wrap-around insulation. Parts of some hospitals in Britain have been shut down for a number of months or years to take off all this cladding. This cladding can be very dangerous for householders, hospitals and schools.

**Chairman:** The Senator has used up five minutes of her ten-minute slot.

**Senator Máire Devine:** Insurance costs have skyrocketed on the back of this insulation material. My area of Dublin 12 was part of the warmer homes pilot scheme. One sees a lot of activity but people have complained that the insurance has skyrocketed. They find it more difficult to get reasonable insurance compared to what they had previously.

**Chairman:** Who would like to answer those questions?

**Mr. Michael Manley:** I will take the first part relating to cost. Yes, the numbers are large. It could be up to €40,000 or €50,000. I bought my house for less than that when I bought it many years ago. It is a very large sum of money. That is why we are looking so hard at the long-term financing option and delivering that at a very low cost of interest over a long-term period in order that things can happen. The simple reality is that dealing with climate change is not free. If it was, we would have done it before. We must make changes now. We would not have used petrol or diesel if it had always been cheaper to do other things. An enormous amount of effort is being made to look at the low-cost financing option and finding ways of reducing the cost of delivery. We are thinking about an area-based approach with aggregation across schemes.

In terms of standards, I remind members that it is the cost-optimal level of performance so it is not an absolute level of performance. It is what works in a particular building. There is a formula of work for that over a 30-year period. Perhaps Mr. Gannon or some other witnesses could answer the question about technical issues relating to fire hazards.

**Chairman:** Would Mr. Daly like to comment?

**Mr. Declan Daly:** Last year, approximately 21,000 houses underwent a shallow retrofit and 250 underwent deep retrofits. There is a backlog of deep retrofits to be done this year. In the region of 150 have been approved, with probably 300 to 400 more awaiting approval from the Department and the SEAI. We cannot start work until we have received approval from the SEAI.

**Senator Máire Devine:** Have there been 250 deep retrofits and is there still a backlog of 100 or 150?

**Mr. Declan Daly:** Some 250 were completed last year.

**Senator Máire Devine:** Those who follow through on their applications are awarded some form of grant aid, but they must cover 60% or 65%.

**Mr. Declan Daly:** Deep retrofit is up to 50% funded for the energy improvement works, but homeowners might also be renovating their kitchens or building extensions, which means there is further investment by them. The energy grant just relates to energy improvement works. It does not cover aesthetics, extensions or new buildings.

**Senator Máire Devine:** It is still proving expensive.

**Mr. Declan Daly:** Yes. It costs €50,000 to undertake a deep retrofit but this is a pilot scheme and only so much finance has been approved for it. There is a backlog of houses ready to go, but the finance for them is not ready.

Regarding materials, any product that we use in our schemes are National Standards Authority of Ireland, NSAI, approved. Everything has to be certified, for example, the wrap-around external insulation, which is usually made from expanded polystyrene, EPS, and the wood fibre. There are also breathable solutions for stone. If a stone or brick structure is retrofitted, a breathable solution must be used. All of the products are NSAI approved. They are also fire rated.

**Senator Máire Devine:** Has the NSAI taken into account what happened at Grenfell and materials' combustibility?

**Mr. Declan Daly:** That is a question for the NSAI, the certifying body for the materials. All of the products that we use are certified.

**Senator Máire Devine:** Maybe that needs to be good enough.

**Mr. Declan Daly:** They have to be certified if a grant is to be drawn down.

**Senator Máire Devine:** I am not sure that the certification is strong enough.

**Mr. Declan Daly:** We just follow NSAI regulations.

**Chairman:** Is that it from the Senator?

**Senator Máire Devine:** Yes.

**Chairman:** Does Deputy Sherlock wish to contribute?

**Deputy Sean Sherlock:** No, thank you.

**Chairman:** I call Deputy Boyd Barrett.

**Deputy Richard Boyd Barrett:** I only have a short time, so I will fly through my questions. The climate action plan states:

For most areas of environmental damage, a key problem is that those inflicting the damage do not pay the cost of the damage they inflict. This is the rationale for charging a carbon price.

To whom is the Department referring as the people who are inflicting the damage? It sounds decidedly punitive and is directed at people who have little or no choice over their level of emissions because of, for example, issues of poor-quality insulation in council houses across

the country, which are rank with damp and so on. Is the Department referring to them? Are they the people who are at fault? Is the Department's policy going to punish them as opposed to people who are wealthy and can afford to insulate their homes? In addressing this issue, how will the Department ensure the just transition? I assume that it is not referring to companies that sell petrol on the side of the road or to other companies that produce polluting products, but to householders and, since public transport is not good enough, people who drive cars.

Is the SEAI concerned that the better energy warmer homes scheme and the warmth and well-being pilot scheme, which provide supports for retrofits, are limited to those who are in receipt of the fuel allowance and that people who are just over the eligibility criteria cannot avail of them? The Government has set its face against raising the eligibility criteria. What do the delegates from the SEAI think of this point? I meet the people affected every week. Elderly people, people with disabilities and so on tell me that they would like to retrofit their homes but, because their incomes are just over the threshold, they cannot benefit from the schemes and the costs of the other schemes are too punitive for them. For those over the eligibility criteria, the costs are generally punitive. Do we not need something that is much more radical in this regard? I do not know whether my next point has already been discussed, but if the ESB or the State in some shape or form gave people grants upfront, could the difference between their current emissions and the reductions that would result from the retrofitting be the basis of any repayment of grants? In other words, they would never pay more as a result of getting a loan and the grant would still be repaid because it is only the difference.

**Chairman:** I might ask the delegates from the Department to answer the questions to it.

**Mr. Michael Manley:** Regarding the Deputy's first question, there are long-term externalities. For example, the cost I impose if I drive a diesel car and the cost of the diesel itself are not the same. That applies to us all when we do something that imposes a cost on others that we do not pay for ourselves. This is not demonising anyone. Rather, it recognises that the person making the decision is sometimes not the person who bears the cost. This issue has been examined.

Regarding criteria, there is a finite sum of money available for most of the schemes that we fund and the SEAI operates. Those criteria seek to prioritise a group of people in that space. If we expanded eligibility, we would expand the financial demand, but how would that be financed? We recognise that, if there is a cut-off point and someone is just a tiny bit over it, it can seem very inequitable. However, that is where it is at.

On the suggestion of the ESB, any of the other energy companies or a different State body having a role, we see that as part of the future whereby part of the savings that a person makes - there is a range of allowances in that regard - could form part of the scheme's financing. Some people are able to finance changes themselves, while others cannot. Currently, we provide 100% financing for those in the most difficult circumstances. The climate action plan makes clear that the scale of investment required across residential and other sectors cannot be done by a Government cheque. There simply is not enough money to pay for it. It is a question of finding a balance between that and creating grant supports and other financing mechanisms so that we get done what needs to be done.

**Chairman:** I next invite Mr. Gannon and Mr. Daly.

**Mr. Jim Gannon:** The two questions to us are inter-related. The warmer homes programme has qualifying criteria. If one subtracts or adds to them, there will always be people who have

an ability to pay and those who do not. Generally speaking, it is those who cannot pay whom we try to address through the warmer homes programme. Although we do not have empirical evidence, we noticed throughout the recession that those with an ability to pay constituted a declining cohort. They are often referred to as the squeezed middle. There was a dearth of activity in that area.

Regarding the second question, there is probably no single solution for Ireland. In light of how other countries intend to approach financing homeowners, it is likely that there will always be a cohort who can only be activated through a grant. Others will look towards a tax rebate.

The concept of “pay as you save” is gaining traction once again in a couple of regions in America and the UK. It was examined in Ireland in 2013 and 2014, but conditions did not seem right. As part of the review in the all-of-Government action plan, though, it must be considered as an option, given that it works. For example, this approach works in the Irish commercial sector, with the capital being brought to the solution and the savings being shared, meaning that there is no increase or so on.

**Chairman:** Mr. Flannery and Mr. Daly both wish to contribute. I ask them to be brief, as I am conscious of the time.

**Mr. David Flannery:** There are various strata of income levels. There is some potential in respect of the 372,000 people who are in receipt of the fuel allowance. This is a subsidy of some €234 million in 2019. Within that there probably exists at least the potential or incentive for lower bills and healthier homes to redirect or look at that payment to see how it can be used to retrofit some of these homes. For example, we retrofitted three homes through the healthy home scheme in Tipperary. Those three homes were paying, collectively, €7,100 in fuel costs through a combination of oil and electric bills. The cost of retrofitting each of those homes was €45,000, but we worked it out to be cost neutral because of the amount of fuel that was used. It paid for itself. There are 370,000 people in this situation where there is an obvious incentive to intervene in improving the home at a fairly neutral or low cost.

**Mr. Declan Daly:** On that point, we are technically paying people who are in receipt of fuel allowance to burn fossil fuels. This is what we are giving them €700 a year to do. We find that when we go out to the market to retrofit those houses the people are now putting in renewable energy heating source, and now they are paid to use a renewable heating source instead of fossil fuel. It is not just about simple payback, there are also the health benefits; those people now live in a healthy house and they will not end up in our hospitals costing the State €800 or €900 per day in dealing with respiratory illness and chronic obstructive pulmonary disease, COPD.

**Deputy Eamon Ryan:** At the recent Global International Energy Efficiency forum Claude Turmes the Minister for Energy and Spatial Planning in Luxembourg, said that ventilation is key and this has been referred to here. I am interested to know if ventilation is being put in all deep retrofits in houses that work technically. Mr. Turmes also said that perhaps a 30 year payback period is needed for a loan financing system, which is longer than I had heard or any of the figures I see here. Perhaps the Department representatives could respond to that. I do not know if that is viable.

Has anybody considered the Energiesprong method that has been prioritised by the Dutch for social housing? Are we looking at that kind of all-in-one, wraparound model?

Given the scale of the challenge presented by deep retrofit, should we start switching away

from the small-scale grant? Is there a risk that if we keep going on the smaller jobs it will reduce the demand for the bigger projects that we need? I am aware this would not be popular but others may feel differently on it. I believe there is a real case to be made for it.

I am interested to know how many of the 100,000 workers who will be working in the construction sector Mr. Parlon believes would be working in retrofitting. Does Mr. Parlon have a figure for how many jobs he thinks would be in that area?

With regard to the work that needs to be done in public buildings, where is that in all of this? If I hear correctly from the Tipperary Energy Agency, it appears to indicate there is a problem because there is summer project work and then a winter valley. Is there a possibility of balancing that annual work programme with the work needed in the public buildings?

I have two further questions for the Department officials. Are we considering as a policy measure any mechanism where, if people are renting, landlords would be required over the next ten year period, for example, to deliver some sort of an upgrade?

I know that every house is different but many houses are similar. Is there any mechanism, perhaps in the pilot scheme, of really aggregating houses with a builder if there is a contract for 100 houses or 500 houses or a whole street? This would seem to me to be a way to get costs down. Aggregation could be the key. What plans do we have for that?

**Mr. Michael Manley:** I will take the Deputy's series of queries, starting at the end. Aggregation is defined in the climate action plan as an area-based approach, which would bring together a standardisation of approach, aggregation of skill sets, aggregation of finance and aggregation of expertise. This is very much in focus. Action No. 46 provides for setting up a taskforce on that, which is already being activated.

On the matter of landlords, it is a very difficult issue to manage because the current position of those in the rental sector is very difficult. It is a very tight market at the moment and increasing the standards in an already tight market is difficult to manage, but it does have to be part of our future. It is very much in focus and is also identified in the climate action plan.

The Deputy asked about Energiesprong method. It is cited as one of the examples in the programme. It is a very attractive proposition that provides a total offering to the householder whereby they get a technical assurance as well as the physical work. It brings finance to the process also. It is fine to say it is a good model but we need to look at how it might be made to work in Ireland. Our tenure is very different from that on the Continent. We do not tend to have corporate bodies with large housing stocks on similar sites where they can actually decant one group and move people through it. Nonetheless, the system offers the future.

On the issue of ventilation, I am not an expert and I am sure the representatives from Sustainable Energy Authority of Ireland, SEAI, can be more accurate on that question with regard to how one looks at managing airflow in a very tightly sealed building. The sealing of a building in itself will not work, so airflow is important.

On the 30 year period for finance, it would not be set in stone. When looking at very large sums of money for deep retrofitting of housing spreading that at near zero cost over longer periods can make it a much more attractive proposition. Again, it is an element that has to be looked at. Action No. 54 in the climate action plan looks very much at developing a new financing model.

The Deputy is correct that if we were to move away from the smaller grants it would not be very attractive, but action No. 52 - the third bullet point - proposes to develop the proposal for the phase-out of grants for shallow energy retrofitting measures by 2022. It is there in black and white in the plan. There will be myriad changes across the board.

**Mr. Tom Parlon:** On the Deputy's question on jobs there is a general rule of thumb in construction that €1 billion expenditure gives 10,000 jobs for the year. If one multiplies the 500,000 houses by the €50,000 average for a deep retrofit, I am not too sure of my own maths but I believe that would be €25 billion. That is 250,000 jobs over a ten year period. That is a lot of work. Retrofitting is highly labour intensive. There is not a great opportunity to automate it or do any of it off site. There is a lot of work involved in deep retrofitting our housing stock.

**Mr. Jim Gannon:** With regard to aggregation, in any jurisdiction this is what people are moving towards. In Ireland accessible public sector and publicly funded stock is quite important and can be a catalyst. We can turn it up or down in economic downturns and upturns, but we can also understand explicitly the inventory and perhaps engage with contractors on the basis that we can guarantee X number of homes and they should recruit the rest.

Internationally and across Europe people are puzzling over the issue of the split incentive between landlords and tenants. It is very difficult and is likely to be a combination of regulation and incentive.

On moving away for the grants for shallow retrofits, it is important that we encourage people to move to deeper and greater investment but not through guilt. Separately, for those who want to do just what they can it is important that we do not disincentivise them. We need to look at a blended option for different people who can afford to do different things. I shall hand over to Ms Coyle to address the query on ventilation, but I also acknowledge that our warmth and well-being programme looks explicitly - with international health experts - at the benefits for people with COPD of retrofitting the home. That would encompass projects such as the healthy homes project in Tipperary and it is core also to deep retrofit, including the empirical evidence we are generating off the back of it.

**Ms Orla Coyle:** That is what I was going to say also. Through our deep retrofit pilot programme and the warmth and well-being scheme we have a number of research and development programmes ongoing with a number of institutes in Ireland. They are monitoring the air quality in the building before and after the deep retrofit. With the deep retrofit programme we require that mechanical ventilation is installed. We do pre and post pressure testing on the buildings. We also install mechanical ventilation associated with it to encourage fresh air in those spaces.

**Mr. Declan Daly:** As Ms Coyle has referenced every deep retrofit has to have a forced ventilation system because one has to get the air tightness down to a certain level. Once that is done it is best practice to put in demand control or heat recovery ventilation.

The Energiesprong system is usually a factory system and all of the panels and the system are made off site and shipped to the site. Normally one would need to have a whole street to sign up to it. Perhaps it would suit social housing more than the private market, and there is also the skilled workforce and labour required to do it.

On switching grants from shallow to deep retrofit, we have found that many people pick the low hanging fruit. They pick the shallow retrofits. When the difficult conversations come around on switching from fossil fuels or putting on solar panels are the high cost options. The

shallow retrofit costs in the region of €3,000 but once the homeowner does that it makes it difficult for the likes of us at the coalface to go out to the homeowners and convince them to do the difficult things such as the windows, the heat pump or the external cladding, which are the expensive works. There are contractors who cherry-pick the easy or low hanging fruit. It is prohibiting the deep retrofit in the future. It has to be a one-stop shop system with the house done completely and not requiring coming back to it in 20 or 30 years time.

Our contractors were more than happy to build the skills but the uncertainty of the deep retrofit programme caused an issue. As it is done in a three or four-month window, they have to let people go or divert them to public buildings which require different skills. To bring market costs down, we have a SuperHomes approved contractor system. All of our contractors go through a process. The first few only do one to five jobs in the first year. Once they have those done, we approve them for 30 to 50 jobs. Those contractors have the skills to do a deep retrofit.

Not all contractors have the skills to do thermal bridging, air tightness or know how to install a heat pump properly. They are used to oil or gas boiler fitting which means it is a different skill for which they need to train.

We are the one-stop shop, the point of contact for a homeowner. We bring them through all the process. We re-assure them they are spending the money correctly and we avail of the grants through the Sustainable Energy Authority of Ireland, SEAI. Ventilation is important as mould and dampness can lead to chronic obstructive pulmonary disease, COPD, in older housing stock.

**Deputy Thomas Pringle:** The Department stated it renovated to the building energy rating of B2 or cost-optimal equivalent. What is that?

**Mr. Michael Manley:** It is actually a technical piece set out in the building regulations. The cost-optimal level performance is the best energy performance that can be achieved in a building for the lowest lifetime cost when both capital costs and operating costs are accounted for over a 30-year period. It was taken that, if a B2 rating cannot be justified, then the cost-optimal model is an acceptable standard.

**Deputy Thomas Pringle:** Is that acceptable in terms of climate change?

**Mr. Michael Manley:** It has to be because it states that over 30 years one cannot do better. Technology may change in the future. The dwelling may not have a lifetime that will go beyond 30 years. Sinking much funding into it may not be a solution.

**Deputy Thomas Pringle:** That sounds a little counterintuitive.

**Mr. Michael Manley:** It is part of the building regulations. I confess I would not be an expert on this area.

**Ms Orla Coyle:** I was involved in the cost-optimal study. Under the EU energy performance of buildings directive, every five years we do a cost-optimal study. We look at the lifecycle assessment of a building which includes maintenance, installation and running costs, as well as taking into account carbon costs and inflation through fuel costs, etc. This all feeds into a cost-optimal study. That defines where we are in terms of building regulations and what level we are trying to achieve.

We take typical building stock. However, as Mr. Jim Gannon mentioned, one can get that

odd house that will not fall into the typical building stock category. The cost-optimal study defines certain insulation levels and heating and lighting system performance levels which are available on the Department's website. The cost-optimal study gives the details of the spec and where we should be targeting to get the best energy performance while looking at the macro-costs. The latter account for the initial capital costs, as well as running, maintenance and carbon costs. Does that make any sense?

**Deputy Thomas Pringle:** It makes sense. It seems counterintuitive to a climate change committee when we are trying to counteract climate change, however. It might be an easier way out of doing a B2 rating and may not achieve climate change resilience.

Is the timescale referred to earlier a building or a funding one?

**Mr. Declan Daly:** Take the case of a homeowner who comes to us to carry out a deep retrofit. We would survey the house, send it out to tender and come back to the homeowner to make a decision. That is a two-month process. We then apply to SEAI for funding for that house. That process could take two to three months to get approval for the work. Under this year's scheme, we must have all work finished by October. We have a certain deadline.

**Deputy Thomas Pringle:** Is it timed around the funding option and not around the optimal time to do work?

**Mr. Declan Daly:** The whole point is we would love to do deep retrofit of houses every day of the year, not this stop-start manner.

**Deputy Thomas Pringle:** That is what I wanted to know.

**Mr. Declan Daly:** A deep retrofit can take anything from three weeks to three months. It depends on the house.

**Deputy Thomas Pringle:** Are the difficulties around the funding mechanisms and not the work being carried out?

**Mr. Declan Daly:** A builder physically cannot start work until we have approval. It is a sizeable grant which can go up to 50%. The grant could be €30,000. We cannot start work until it is in place. It is a contract that the SEAI gives us with this funding.

**Deputy Thomas Pringle:** It is all made to fit the funding envelope rather than the actual work that needs to be done.

**Mr. Declan Daly:** We would have to work 12 months in advance to meet that deadline.

**Deputy Thomas Pringle:** Local authority houses can be rolled on in phases meaning the contractors can be sure of having work.

This programme will take time. However, time is one thing we do not have. When is the Department going to stop thinking about it and make things happen?

**Mr. Michael Manley:** The climate action plans sets out a short time window. There are 180 actions in it. Of those, 160 down are down to our Department and another 128 down to agencies under the Department's remit such as the Commission for Regulation of Utilities and SEAI. Up to 90 of those are to be done by Christmas. There is much to be done.

In terms of the task force looking at the delivery model and financing, it must have its work

complete by the end of next year. That is a significant amount of work to get through to the back end of next year.

**Deputy Thomas Pringle:** With respect, officialdom has known about climate change for 20 years or more. When the Green Party was in power the last time, we knew about climate change. We are only now getting to do this work.

**Mr. Michael Manley:** I do not want to get into the politics of it but we had the Oireachtas committee report in the early part of this year. We also had the climate action plan and the Citizens' Assembly report this year. There has been a quick response in developing a plan to implement those objectives.

**Deputy Thomas Pringle:** Will we see the implementation ramp up astronomically?

**Mr. Michael Manley:** It has to.

**Chairman:** It is the targets and the timelines that the committee needs to examine.

**Mr. Jim Gannon:** It is worth noting that work started on several programmes over the past number of years. We have already tested five different models such as whether there is a better way to provide finance to a larger range of people that are not grant-related. We are not without empirical experience. We are still looking at green mortgages and pay-as-you-save, to which Deputy Richard Boyd Barrett referred.

On warmer homes, we intentionally worked with contractors to bring the level of intervention that little bit deeper and, over the past two years, aligning it to B2. We are developing those competencies with contractors. It is not a standing start. The pressure is on but we need to ramp things up. Whether or not there is an expectation or perception that it is achievable, the timeline articulated in the all-of-Government plan requires these solutions to work in the next several months.

**Deputy Sean Sherlock:** I wish to come back to financing and scalability, which are the two elements to this that I can discern. If questions about finance have already been asked and answered-----

**Chairman:** This has been asked of the Department, but the Deputy can be specific.

**Deputy Sean Sherlock:** How can we get banks and credit unions to finance this opportunity for people living in typical 1970s bungalows? Such people might have some savings and can benefit from the SEAI grant. However, they still fall short of the a cost of a deep retrofit or a better energy solution. How do we fill that final piece of the pie? I have not been able to figure that out. The credit union movement and the Irish League of Credit Unions have talking about getting into this space. I imagine the banks could not care less about this space. However, relatively small loans could be scaled up to achieve a lot.

**Chairman:** I will call on Mr. Flannery, who wants to comment on this, and then any other speaker.

**Deputy Sean Sherlock:** That is the first question.

**Chairman:** Does Deputy Sherlock want the answer to that question first?

**Deputy Sean Sherlock:** Yes, please.

**Mr. David Flannery:** I am not sure I have the answer to it. A project in the Picardy region of France provides an example of a possible approach to the mix of finance. Some 20% of project costs are financed through the European Investment Bank, EIB, and 20% are financed through the regional authorities. That sort of security allows the homeowner to borrow at a much lower interest rate. They typically borrow at rates of 2% or 2.5%. Those rates are a game changer. We can all identify the problem we are seeing at the moment, which is slow finance that is not tailored towards renovation. At the same time, a borrower can get 0% interest rates to finance on a car on the forecourt. We are at typical rates of 6.7% to 7.9%. That means there is much less incentive for anyone considering it, because any savings will be swallowed up by interest payments. It is not beyond our ken to come up with a financial package. We have successfully done that with many other sectors. We could probably agree on the need for that in order to increase scale.

**Mr. Jim Gannon:** An appendix at the tail-end of our presentation shows two or three examples of consumer models we already have tested. We achieved good results with those. Some credit unions are involved in these. There will always be a premium for high street banks to develop a new product but they realise that a paradigm shift is coming. The Department has already mentioned ongoing work with the SBCI, NewERA and others to examine options here. The employer model has been tested successfully. It is analogous to the cycle to work scheme. Other options such as tax rebates or green mortgages are being used in other jurisdictions. Again, no single one of these is likely to be the solution for everybody. We must package several of these differently for different people with different abilities to pay.

**Mr. David Manley:** Barclays bank in the UK has recently announced a green mortgage. It will offer a reduction on a mortgage in cases where a building achieves certain standards. The bank is talking about that as a precursor to introducing a retrofit space model. Not to disparage that but our big focus is on creating a large pool of finance at very low rates of interest. This will mean that people can undertake the work and pay for it either through a pay-as-you-save scheme or a loan remuneration scheme over time where energy savings make a significant contribution to repayment.

**Deputy Sean Sherlock:** I appreciate that. There is more work to be done around financing but at least we can take some empirical models from the SEAI research.

I welcome Mr. Tom Parlon back to the House, if that has not been done already. I am sure it has. I refer to Part L of the building regulations and the skill set needed for retrofitting. A finite pool of labour is available for construction in Ireland at present but that is going to ramp up. I have a two-part question. First, how will the Construction Industry Federation, CIF, and others train the type of people the Tipperary Energy Agency is supplying in order to meet the demand?

**Chairman:** We had that question earlier, but the Deputy may continue. What is his next question?

**Deputy Sean Sherlock:** As I said at the outset, for efficiency's sake if my questions have been answered already the witnesses need not answer them.

The second question concerns Part L of the building regulations. We have discussed nearly zero energy buildings. What is the energy fit in these buildings? Is it boilers, advanced boilers or heat exchangers? What is the CIF's interpretation of Part L for new builds? My fear is that solar and heat exchangers might not be part of it. Is there any thinking within CIF on that?

**Mr. James Benson:** We have known about this for quite some time. We were heavily involved in the consultation on Part L, which concerns conservation of fuel and energy. It is heavily linked to Part F, which concerns ventilation. The closing date for initial submissions to the consultation was about this time last year. We have been heavily involved since. It was announced on the signing of the statutory instruments that Part L will come into effect on 31 October 2019, with substantial completion required for 31 October 2020.

The requirements for nearly zero energy buildings allow for multiple options. The calculation is based on averages. There will definitely be a move towards heat recovery systems. We will probably see an increase in the number of electrical heat pumps. That does not negate the option of natural ventilation. It is more difficult to achieve but that option remains. We recognise that. As we touched on earlier in reference to available skill sets, the credibility of apprenticeships and the large numbers entering the mechanical and electrical areas will improve skills in this particular area. It is important that regulations applied to new stock create high confidence in standards and provide assurance to consumers. That will complement the retrofit details that will come down the line.

**Chairman:** Ms Orla Coyle wanted to comment. I will then call on Mr. Manley.

**Ms Orla Coyle:** Regarding skill sets, I note that the Departments of Housing, Planning and Local Government and Communications, Climate Action and Environment and the SEAI have been working quite closely with Waterford and Wexford Education and Training Board. We have developed a training specification for both new builds and retrofit. This will create skills relevant to ventilation, the finishes on wall construction etc. That training specification is in place. Waterford and Wexford Education and Training Board has already started to roll out the training. The action plan calls for this to be rolled out nationwide.

The issue of nearly zero energy buildings is relevant to the new Part L of the building regulations. Part L has been available on the website of the Department of Housing, Planning and Local Government since last week or the week before. That means we basically set performance targets. There is a requirement for 20% renewable technology within all new building stock that goes onto the market. That requirement is technology-neutral, so heat pumps, photovoltaic technology and other technologies can be used.

**Deputy Sean Sherlock:** That is the challenge. We are now going to load the grid. We will effectively use fossil fuels to add more power to the grid to meet the targets from a building perspective. At the same time, there will be an exponential increase in the amount of fossil fuel we use to keep the grid going. I am playing devil's advocate now-----

**Mr. Michael Manley:** The climate action plan sets a target of 70% renewables by 2030. The remaining 30% will partially consist of fossil fuels. However new emerging technologies, particularly around storage of hydrogen, will bring about a change there.

There are two other points I would like to make. First I will quote a figure; oil systems used to make up about 36% of our central heating systems. That has now decreased to 5%. That is a massive change in a very short period and it is directly related to regulations. Regarding labour supply, we must realise that about 60,000 people come out of the second level system every year. Between now and the end of 2030 that will add up to about 650,000 people, to which migration and returning emigrants can be added. Some of us will leave the labour force in that period. We need to make it an attractive career proposition and provide training. The climate action plan, in both the funding under the NDP and the clear message about the long-term ob-

jectives, gives us strength.

**Mr. Declan Daly:** Reference was made to the natural electrical load curve over the course of a day. Regarding the deep retrofit, we engage in a lot of energy monitoring of the systems. We work with Electric Ireland, the ESB and Limerick Institute of Technology as a research institute. Smart systems and programmes are designed to tell heat pumps not to come on at 6 p.m., when everyone is going home to cook his or her dinner. Because one's house is well insulated, the heat load comes down drastically. One programmes the system to come on at noon or 2 p.m. when everyone is at work. One programmes the heating system to tell it not to come on during the peak periods; one preheats one's house by telling the system to come on in the evening. As a heat pump is designed to be always on, the peak usage will be taken out of the grid once we install more heat pumps in the system. In addition, research has been carried out into a smart tariff, whereby people are incentivised by being charged a higher rate after 6 p.m., but in the middle of the day it drops to perhaps 8 cent instead of 18 cent. The research is at a micro level, but such a tariff could be rolled out in the future.

**Deputy Danny Healy-Rae:** I refer to the delivery of the warmer homes scheme. For 15 years, I believe, community based, community-led organisations have been delivering the warmer homes scheme for the SEAI. It has become apparent that there will be a shortfall of €1.8 million if 13 community based organisations, CBOs, are to continue this work, which would deliver 660 units across the 13 CBOs. If they have no work to do, it is likely that their boards will have to consider closures, layoffs and staff redundancies. This would result in significant job losses - approximately 60 to 70 immediately - among a skilled workforce. It is ironic and contradictory that all this is happening at a time when the Government is planning to have 50,000 homes retrofitted per annum. To enable the CBOs to continue operating in 2019, we will require the SEAI to allocate approximately €1.8 million. This always happens at this time of year. The SEAI allocates funding to ensure homes are retrofitted. The CBOs, including IRD Duhallow, South Kerry Development Partnership and North & East Kerry Development, have done so much good work for their communities. What has happened? Is the Government leaving the Department short of funding? It is just €1.8 million we are talking about. These skilled people will be let go. What is happening with the funding? Is it being shut down for the rest of the year? I would be grateful if the delegates could answer and tell me what is happening.

**Chairman:** I will bring in the officials from the Department first.

**Mr. Michael Manley:** It is a fair question. CBOs have been a really important part of the framework for a long time. One of the issues which has arisen is that as we have provided support for deeper retrofits and people gravitate towards them, the CBOs do not have the capacity to carry them out. This year there has been a real upsurge in interest in deep retrofit programmes, which, in many ways, represents a success. The bottom line is that, as happens every year, the Department conducts a mid-term capital review. We look at what is going well and what is falling behind. We have been working with the SEAI to reallocate funding across the programme, but my understanding - I think Mr. Gannon may be able to elaborate on this - is that the SEAI will contact the CBOs to ensure they will be okay to year end.

**Deputy Danny Healy-Rae:** Mr. Manley is, therefore, confirming that the Department is prepared to allocate more funding where there is interest. The CBOs are crying out for funding. If they do not receive it, they will have to let go skilled people who have accumulated experience over 15 years. This is the first time it has happened. It is ironic-----

**Chairman:** Does Mr. Gannon wish simply to concur with Mr. Manley?

**Mr. Jim Gannon:** Yes.

**Chairman:** Is that okay, Deputy?

**Deputy Danny Healy-Rae:** I would be very grateful if Mr. Manley honoured it by speaking to the CBOs.

**Chairman:** Mr. Manley and Mr. Gannon will do so and have said as much.

**Deputy Danny Healy-Rae:** This is very important for the communities in County Kerry that I represent.

**Senator Alice-Mary Higgins:** I thank the delegates for their presentations. A couple of themes have been touched on into which I would like to dive a little more. It is good to hear that the scale is increasing, but we want it to increase even further. The question of aggregated solutions is important. In that context, I was particularly interested in the better energy communities scheme within the SEAI. The scheme seems to be one in which the driver must come from a community. Is it one in which a much more active role could be played in seeking to encourage, target or co-operate, for example, on incentivised or larger subsidisation offers to communities? In other words, rather than relying on the push coming from the individual or a collection of individuals, we could look to have a real pull factor and a push in how we build. Clearly, there is economy of scale in costings in that regard. If we are looking to move towards large-scale and aggregated actions, might there be something said about financing?

One of the other issues that has been coming up consistently is the core requirement for predictability. Some of the issues surrounding predictability seem to concern finance flow. We really cannot afford to have these issues block the flow. The other issue concerns public buildings, in respect of which a very constructive proposal was made. Then there is the idea of retrofitting. Predictability is important, not just for the construction industry but also for employees. I sit on the Joint Committee on Employment Affairs and Social Protection. We have dealt with the issue of insecure work in the construction industry, where people are paid as individual contractors, rather than as employees. Again, longer term contracts could prove to be an incentive in that regard. Similarly, I expect pressure to be put on companies to reflect the insecurity their employees face.

**Chairman:** May I bring in Mr. Gannon to respond to those comments? I will come back to the Senator.

**Senator Alice-Mary Higgins:** Yes. I will then ask my main question.

**Mr. Jim Gannon:** There are two aspects. The better energy communities model grew from an area-based model which sought to look at a certain locality, parish or electoral area to get the community involved. The more successful schemes had that aim in mind. With a programme such as this, one always sets a bar, whereby there is an evaluation matrix. Particularly where we have co-ordinators or intermediaries whose businesses are dependent on it, whether it be a social enterprise or a private sector business, they tend to move towards satisfying that matrix. We have better energy communities projects coming through. They could consist of three homes on Inishmore, two on Arranmore and three in Sligo and some businesses. We are trying to bring it back to an area based model over time. With an area based model we can look at predictability. A contractor can come into a specific area and mobilise in a much smaller one.

A key component is the sustainable energy communities network. What we are trying to do is generate awareness and a competency and empower local communities to be confident enough to do some of this work themselves, while providing them with support and experts. However, we want them to do it, instead of having an organisation coming in as the expert and, because there is expertise, charging a premium. There are nearly 300 communities to be found in every county in Ireland. We provide them with support and mentors and there is oversight and funding to deliver their own master plan. That is the final point. As it is the community's master plan, we do not prescribe how it should define its low-carbon future. The community defines it; we just give it the expertise. Ownership and locality are, therefore, critical and can provide the predictability because the community's master plan will articulate how in the next three, five, ten or 12 years it will get to that point.

**Senator Alice-Mary Higgins:** Where does it intersect with local authority stock and its retrofitting? Many of us assume all local authority stock should be retrofitted as deeply as possible. That is another area identified for aggregation and large-scale action. I read in one of the figures that 9% of housing stock is local authorities.

**Mr. Jim Gannon:** And the approved housing bodies.

**Senator Alice-Mary Higgins:** A total of 372,000 are in receipt of fuel allowance. I do not know what proportion of that figure live in local authority housing. How many are in private rented accommodation? Will Mr. Gannon comment on this?

**Mr. Jim Gannon:** I remarked on this earlier twice because this is so important in terms of the opportunity that resides in the 9% which is publicly owned stock such as local authorities and publicly funded stock such as the approved housing bodies. We might deal with between 30 and 40 landlords but there is access to 150,000 homes, and thereby we can examine the inventory, plan how to upgrade it over ten years and access it. During a downturn, we could turn up the public stock. If that public stock is a backbone, it is possible to execute the type of contract which guarantees a contractor a particular amount of work in an area in return for which the contractor needs to recruit the additional number of homes. That could be used as leverage to decrease costs, to get more social activity around it, and to create the economic case through sheer scale.

**Senator Alice-Mary Higgins:** I almost like what Mr. Gannon is saying but I am cautious about turning incentivisation on and off when it comes to social housing. I am in favour of predictability and work being sustainable. I presume new housing stock will be coming on board but I imagine that existing housing stock needs to be front-loaded as much as possible.

**Mr. Jim Gannon:** Let us consider a steady pipeline of activity. During a recession, private people will likely have a lower ability to pay. This is an effort to maintain a level of activity but the mix could change. If, during a recession, a lower number of people can pay, then the social aspect could be turned up to try to maintain the level of activity in the context of CO<sub>2</sub>.

**Senator Alice-Mary Higgins:** The debate we had on cost optimal reminded me of similar debates I have had around price quality ratio, most economically advantageous tender, and so on. There is a big push around procurement. In procurement, one option is the most economically advantageous tender, which is effectively just about cost, and there is price quality ratio. In the context of procurement, and while I am aware this is drifting into public building, I am very interested in the national development plan, because it will tie in, not necessarily in terms of individual homes but perhaps looking at matters like congregated settings. What might be

done more in terms of a pressure point in procurement and raising the required standards? I would also be interested in Mr. Parlon's view on this. This is different from the legal standard required as the base. This is the desired standard that might be required as a quality measure within a price quality criteria in public procurement. I am very interested in this in terms of capital expenditure, new public housing that might be built, and how we might press that further. On financing, which may have been touched on earlier, what are witnesses views on European Investment Bank financing for those front-loaded schemes, public housing and other areas? On materials, the cement and concrete industries are very major carbon producers. Is there a review or what is the mechanism of review not just of what materials are basic and safe but also of which are preferable?

**Chairman:** I will invite the Department to respond. They might speak on green public procurement first.

**Mr. Michael Manley:** The Senator has put her finger on the matter. As the climate action plan points out, around 12% of Irish GDP comes through public procurement. There is a very clear mandate for the instruction of green criteria across government, bringing it into the Office of Government Procurement and its regime, engaging with suppliers about what they do, and providing support and guidance to people. It is a fundamental shift of inserting that climate dimension into all procurement into the future. This must be done in the overall framework of EU law, competition and so on, but nonetheless there is a very strong message in the climate action plan that a redesigned model of public procurement with green at its centre would be very much part of the future.

**Chairman:** Does Mr. Parlon wish to come in?

**Mr. Tom Parlon:** There would be considerable cost-benefit advantages of doing a block of perhaps one or two dozen or 100 local authority houses under public procurement. The big debate lately has been around quality and price. As has been the case, unfortunately, in much public tendering, the lowest price wins all and that is at the expense of quality. As Mr. Manley has said, that is an issue that is being discussed and new proposals are coming forward from the Office of Government Procurement. It is a tricky area because price is very determinable. If someone says he or she will do a job for €150,000, the quality can be difficult to ascertain. We support quality being an important criteria in Government procurement.

**Mr. James Benson:** To bolster that and alleviate any fears about the quality of the new stock, any new stock or builds will be in compliance with the building standards in the Building Control (Amendment) Regulations 2014. Even before the updated standards come into effect in October of this year and a further substantial completion takes place in October of next year, the level of existing standards, such as the conservation of fuel and energy in Part L, which has been in place since 2011, is very high anyway, so the quality will be there in new and recent stock.

**Mr. Jim Gannon:** I will refer to materials as others have covered the rest. The Office of Public Works, OPW, is lead entirety to put together an activity involving us, the Department of Communications, Climate Action and Environment, and the Department of Housing, Planning and Local Government to examine the promotion of lower carbon alternatives in building materials, particularly in retrofitting.

**Senator Alice-Mary Higgins:** Levies will also be examined down the line.

**Chairman:** Mr. Daly wanted to come in on that.

**Mr. Declan Daly:** On cost optimum, there may be some confusion on the nearly zero energy building, NZEB, standards that one must achieve to get to B2. I do not want to get too technical, but the cost optimum refers to a certain detail. It is more a question of why spend €20,000 insulating a wall to a certain standard when it is a stone wall. When doing that, a certain acceptable construction detail must be met. Spending that much money might only save the homeowner €300, whereas spending half that sum could save him or her €200. That is cost optimum. How much money makes economic sense to put into a house? We might be chasing a B2 or A3 rating but we have to go back to asking what makes sense to do to the house. That is what is meant by cost optimum. It is not related to lowest tenders or price.

**Senator Alice-Mary Higgins:** I know, but similar tensions arise. I was using it more as a parallel when balancing price and quality. My last point was around landlords and the tension there which was mentioned. Many of those living in the lowest income households live in private rented accommodation. This relates to the security of Part 4 tenancies. It is a question of how we can encourage retrofitting, for example, expedited or period of time retrofitting, without creating a perverse incentive around evictions. Does anybody have any thoughts on examples from other European countries, for example, where there might be a three-month suspension of a tenancy, but if it is the equivalent of a Part 4 tenancy, it is effectively protected, even during a period of retrofitting?

**Mr. Jim Gannon:** This is commonly referred to in energy retrofitting as the split incentive problem where a landlord finds it challenging to justify putting capital into a home where the tenant might be the ultimate beneficiary of the investment. There is an energy saving that the tenant will not have to pay any more but the landlord will put the capital in. It is not something where a solution is apparent in Europe. There is a lot of work ongoing on this. The European Commission in particular is involved. We are understanding of it and it is part of the cross-Government action plan to look at that. There are two different types, with the commercial proposition very much different from the housing and home definition. I can provide further detail on this.

**Chairman:** We are way over time.

**Senator Alice-Mary Higgins:** The split incentive problem might not be the best frame for this. It may be a public benefit of a different kind, namely, housing security and climate action. If we put it like that, it is a different frame and conversation.

**Mr. Michael Manley:** We are committed to reviewing European practice and conducting a public consultation. There will be an opportunity for people to provide input and say how they see it. It is tricky to get a balance between the interests. Mr. Gannon described it well. There is a divergence.

**Chairman:** Sometimes the issue of price gouging by suppliers comes up where there is a grant. On the matter of the Tipperary Energy Agency, I understand that the Sustainable Energy Authority of Ireland, SEAI, has an oversight function.

**Mr. Declan Daly:** Since there is a short time to do the work, unfortunately, contractors increase the price. They have to meet a technical specification and there is a lot of paperwork and an inspection unit that inspects all the work. They do it to a higher standard than if a person rang a local contractor about insulating the attic. It is not comparing like with like when look-

ing at the two prices. The SEAI grant scheme has a very high standard. There is no relation between the costs under the SEAI grant scheme and a local contractor who will probably do it for cash.

**Chairman:** The quality may not be-----

**Mr. Declan Daly:** The quality is much better but, unfortunately, because contractors have to do the work in a very short timeframe, they have to pay labourers for extra time, work at weekends and so on. They do not have the assurance that the scheme will roll out throughout the year but need to do it in a three or four-month block every year. That raises the price.

**Chairman:** That is done through the SEAI and the grant scheme.

**Mr. Jim Gannon:** People will charge a premium when anything is considered special, experts are advising on it, or if there is a small cohort of people doing it. We need to think about this collectively and believe in the end point where this is just what the tradesmen, engineers and architects do as a matter of course, and we should make it affordable for those who want to be able to do it. Any medium-term step will have counterintuitive impacts that we need to monitor, measure and learn from. That end point is a normalisation of this activity where there is no premium to be paid because it is simply what we do.

**Chairman:** With regard to oversight, it is often stated anecdotally that when customers look at retrofitting their homes, the price will go up if they get the grant because the supplier knows about it. Is there solace for people in that there is oversight by the SEAI?

**Mr. Jim Gannon:** The solace is that the contractor must have a tax clearance certificate and have his or her insurance in order, and that contractor will be inspected. It will happen occasionally, and if a registered contractor does not pass the inspection, he or she will be delisted so that he or she cannot do the work. We are trying to have all of the supply chain perform to that level. We need to keep that end point in mind, of having no premium attached and for this not to be special any more.

**Chairman:** I thank the witnesses for attending. As there is no other business, the joint committee is adjourned until after the recess.

The joint committee adjourned at 4.15 p.m. *sine die*.