HOUSE OF COMMONS

# Energy Security and Net Zero Committee

## Oral evidence: Building support for the energy transition, HC 734

Wednesday 2 July 2025

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Watch the meeting

Members present: Bill Esterson (Chair); Ms Polly Billington; Torcuil Crichton; Wera Hobhouse; Luke Murphy; Mike Reader; Claire Young.

Questions 73 - 169

### Witnesses

I: Maria Booker, Head of Policy, Fair by Design; Euan Sinclair Elliot, Public Affairs Manager, Citizens Advice; and Professor Sara Walker, Co-Director, Energy Demand Research Centre (EDRC).

II: Geraldine Bolton, Chief Executive, Confederation of British Metalforming; Andrew Sissons, Deputy Director, Sustainable Future Mission, Nesta; and Professor Richard Fitton, School of Science, Engineering and Environment, University of Salford, Fellow, Royal Institution of Chartered Surveyors.

Written evidence from witnesses:

- Fair By Design
- Energy Demand Research Centre (EDRC)
- Nesta
- Royal Institution of Chartered Surveyors

## Examination of witnesses

Witnesses: Maria Booker, Euan Sinclair Elliot and Professor Sara Walker.

Q73 **Chair:** Welcome to this afternoon's session of the Energy Security and Net Zero Committee. We have two panels, continuing the Committee's inquiry on building support for the energy transition. In our first panel we are looking at costs and benefits to households. I will ask our panellists to introduce themselves before we start the questions.

***Maria Booker:*** Hello. My name is Maria Booker. I am head of policy at Fair by Design, which is a campaign that aims to eliminate the poverty premium. That is the extra money that people on low incomes spend on essentials such as energy, insurance and credit. I am here today primarily to share the views of people with lived experience of living on low incomes, including their views on the transition.

***Euan Sinclair Elliot:*** I am Euan Sinclair Elliot, public affairs manager at Citizens Advice. We are one of the largest providers of advice in the UK and the statutory watchdog for energy consumers.

***Professor Walker:*** My name is Sara Walker. I am professor of energy at the University of Birmingham. Today I am representing the Energy Demand Research Centre, which is a UKRI-funded research centre looking predominantly at the energy transition from an energy demand reduction perspective.

Q74 **Chair:** Thank you all very much. You are most welcome. We look forward to your evidence. Euan Sinclair Elliot, I would like to start with you first, please. To what extent do people worry about whether they can afford low-carbon technologies, or is it that they simply ignore the issue until something like a boiler breakdown?

***Euan Sinclair Elliot:*** The biggest barrier to upgrading people's homes is the cost. We know that nearly 4 million households in the UK have less than £100 spare each month, so accessing the cost of these technologies is a big barrier. We know that around 75% of homeowners are interested in making low-carbon upgrades to their homes, but about 60% overall are predominantly concerned about the cost. The other main barriers that people face are understanding what measure would be right for their homes, how to find a trustworthy tradesperson and what would happen if things went wrong. They worry about the disruption to their homes while these works take place.

Q75 **Chair:** Do you think the raised awareness that came out of the energy crisis of 2022 onwards has been squandered, that there has been a lack of focus from Government and that this is partly responsible for the relatively low uptake of clean heat technologies and retrofit? That is a point made to us by the Royal Institution of Chartered Surveyors.

***Euan Sinclair Elliot:*** In some cases we have seen quite mixed messages. For example, the last Government said that rented homes would need to be upgraded to EPC C, but they then pulled back on that. We saw a direct impact when that happened, as a quarter of landlords who were thinking about making upgrades to their homes then cancelled their plans to do so. There is a real need for policy certainty to give people the confidence to make these changes to their homes, and to make sure there is long-term support so that people know they are doing the right thing and have confidence that they will continue to be supported to do the right thing in the future.

Q76 **Chair:** Sara Walker, are people aware of what the environmental and economic costs might be if we do not transition to clean energy?

***Professor Walker:*** In terms of our research, we have a citizens panel where we are discussing different potential for energy demand reduction. The citizens panel has shown a desire for strong leadership on change through education, engagement and information. That request is aligned to wanting information on skills development and the ability to change, and understanding what practices can enable that change to be effective. In the research we are seeing a willingness to change but a lack of education, engagement and information.

Q77 **Chair:** We will explore these points further, and my colleagues have additional questions on that point. Maria Booker, do you think people are poorly equipped to judge the efficacy of low-carbon technologies?

***Maria Booker:*** The research we have done with people who have lived experience has shown that people would like more information and advice about what they need to do to decarbonise their homes in particular. As Euan said, they feel that the biggest barrier is cost. They do not feel that they will be able to afford the big up-front costs of upgrading their homes or buying the smart technology needed. Renters in particular—that is nearly 40% of households—feel they have a lack of control over what happens to their home. Private renters feel that it is the landlord's decision whether those upgrades get made. Social renters are concerned about how the costs would be charged back through service charges.

**Chair:** I will pass on to Wera Hobhouse, who has some questions that follow up neatly on some of what you have all just said.

Q78 **Wera Hobhouse:** Thank you for coming and getting straight into the heart of things. The private rented sector has been raised as a concern in this Committee and elsewhere, and private renters absolutely do not have control over it. Some sort of scheme that actually addresses people in the private sector is probably very important.

Let us go into how effective the Government have been in communicating the costs and benefits of transition to low-carbon technologies. I have fully bought into the idea that it would be much more effective than not getting to net zero, but how honest have the Government been about the whole cost of net zero? Do you have an opinion on that? Are the Government being honest about the costs?

***Maria Booker:*** There are three stages. There is the substance of what you are offering to people about the transition, how you communicate it, and their experience of taking those steps and whether it is a good experience. We still need to focus on the first one, which is the substance of how the benefits and costs of net zero are going to be shared. Although the overall benefits are very clear, it is not clear what the distribution will be.

We wrote to Ofgem two months ago and asked it to update the distributional impact analysis it had done in 2021, because it had been done before the energy crisis and the data it used was not very robust in the first place. Ofgem said it will wait until we are nearly all the way through the market-wide half-hourly settlement until it does that analysis again.

We really need the system to be fair by design from the start, to make sure we know what the benefits are going to look like, and we need to address those proactively up front. Of course, the costs are going to be consulted on later this year as well. We need to get the offer right before we can start talking about the communication.

Q79 **Wera Hobhouse:** Would you say that it is currently a bit confused, as a concept, from the Government?

***Maria Booker:*** It is just not clear how the benefits are going to be shared. The original impact assessment, done in 2021, showed that there was as much variation within groups as between groups, but it was based largely on a study done in London that excluded quite important groups, such as people on prepayment meters and people on dual-fuel tariffs. Basically, we do not really know how the benefits are going to be shared, and we would like to see Ofgem update that analysis.

***Euan Sinclair Elliot:*** From our point of view, we can see that there are benefits already coming through, but they are not evenly distributed. If you have the money to put solar panels on your roof, and a heat pump and a battery, you are able to start taking advantage of those flexible tariffs and start making savings. You might even be selling energy back to the grid. Conversely, if you are a renter living in a poorly insulated home, you are currently getting all the downsides of that and none of the benefits.

At the moment, we are concerned that the benefits are not evenly shared. We are concerned that, if that continues to be the case, the political consent around the net zero transition will start to evaporate. That is why one of the things that Citizens Advice continually calls for is a social tariff to support low-income households with their energy bills, so that the distributional impacts of the transition to net zero can be smoothed out.

***Professor Walker:*** The benefits are perhaps not well articulated. We have been doing some research into five categories of benefit: health, economy, security, society and environment. Trying to put a financial value on some of those is extremely difficult, but we see benefits in terms of reduced air pollution, which has health benefits, and changes to diet, which can have health benefits. In fact, our citizens panel said that, in terms of changes to diet, rather than talking about the benefit from an emissions reduction point of view, talking about the benefit from a health point of view is a much more attractive conversation to have with the community.

Q80 **Wera Hobhouse:** Professor Walker, you have anticipated my question. What steps could the Government take to provide clearer and more accessible information? You are saying that they should talk about the things that are relevant to those households. What form should that be in? What would you suggest is the best way it can be communicated? Is it through a television advert, leaflets or—I know this is always the most expensive—face-to-face sessions?

***Professor Walker:*** The research shows that the most effective is through trusted intermediaries, and for those messages to be put into a local context, rather than a national context. It is very important that the messaging emphasises the local benefits to the community of the energy transition, as well as the impacts. Trusted intermediaries, such as in the third sector, are really important in this space.

***Euan Sinclair Elliot:*** As well as a comms campaign that raises awareness of these issues and the costs and benefits of the transition, you need to make sure that the rest of the journey is smooth for the consumer. At the moment there is not, for example, an advice service where people can get individual, tailored, impartial advice about what would be right for their particular home. They cannot get advice on what kinds of financing options or grants might be available. The whole journey needs to be streamlined, right from awareness all the way down to people actually having measures fitted into their homes, and indeed to aftercare if something goes wrong. It is about making the whole journey a lot easier and more frictionless.

Q81 **Wera Hobhouse:** On a very simple scale from one to 10, how aware do you think households are, including vulnerable households, if one is not at all and 10 is very aware?

***Euan Sinclair Elliot:*** We know that 74% of households are interested in making these upgrades to their homes, but there is a low level of awareness about, for example, the schemes available to support them. In some research we did with households on means-tested benefits, 75% wrongly thought they were not eligible for the ECO scheme or had not heard of it. There is quite a low level of awareness of the help that is already out there.

***Maria Booker:*** The research we did showed that people on low incomes want a diverse range of communications channels. There was not a one-size-fits-all. Some people preferred the face-to-face approach. Some people were happy to go online. To echo the point about trusted intermediaries, people want to hear from trusted people.

**Chair:** We now have some questions on the role of energy suppliers in building support.

Q82 **Wera Hobhouse:** Professor Walker, what evidence-based strategies can help suppliers to improve public understanding of net zero? We are now talking about those who are supplying solutions to households. What is their role?

***Professor Walker:*** Can I clarify whether you mean energy suppliers or suppliers of technologies that could reduce energy demand?

**Wera Hobhouse:** Energy suppliers.

***Professor Walker:*** From the research on energy advice, we see that the majority of providers are third-sector organisations, sometimes in partnership with local authorities and businesses. It is important that energy advice is provided through trusted organisations. Research has shown that, generally, energy suppliers are not seen as trusted, because their mechanism for making money is to sell units of energy. From a consumer perspective, there is some level of distrust in the energy advice they receive from energy suppliers.

Q83 **Wera Hobhouse:** That is obviously an inherent problem, is it not? People who want to sell you things are advising on the best tariffs. Is there any way around that?

***Professor Walker:*** The way around that is to develop strong partnerships for delivering energy advice to consumers that includes both the utilities and other trusted organisations so that the messaging is seen to be more independent than if it was from the utility alone.

Q84 **Wera Hobhouse:** Maria Booker, what practical steps could suppliers take to rebuild consumer trust? As you say, there is already an inherent problem.

***Maria Booker:*** People we spoke to in the research said that they wanted to hear more from energy suppliers. They wanted a proactive conversation. They wanted energy suppliers to reach out with more information and advice, but they also said that they do not have much trust in energy suppliers. Maybe it is about building up that relationship from a low base, so that people learn again to trust those companies and that advice.

Q85 **Wera Hobhouse:** Almost asking the question again, through what channels would that be? Some people prefer face to face and some people prefer a leaflet, so there is no one-size-fits-all. Would you agree with that?

***Euan Sinclair Elliot:*** Yes, absolutely. Trust in suppliers collapsed during the crisis, and we have seen it slowly recover. Indeed, customer service has slightly improved in the sector as well. We have seen a bit of trust come back into the sector. We definitely think that suppliers have a role, particularly on things such as flexibility, where they are able to promote different types of tariffs. They need to make sure that they are providing really clear information so that people can understand the options available to them as the retail market becomes more complicated and the number of tariff types expands.

Q86 **Ms Billington:** It might seem self-evident that energy companies are going to be seen sceptically by consumers because, as you point out, their job is to sell more units of energy. However, other utility providers manage to package up services in ways that give consumers confidence to decide, "Yes, I will switch from this organisation to another in order to be able to get a bundle of goodies," so broadband, wi-fi and so forth, even if they are not particularly good customer service providers when things go wrong.

The circumstance of low trust is not unique to energy providers, yet trust seems to be uniquely low. Is there a way that the energy sector more generally, or the energy companies themselves individually, could improve consumer trust by learning from other utility providers to be more successful in encouraging consumers to adopt other things, such as dynamic tariffs and so forth?

***Euan Sinclair Elliot:*** Part of the challenge is that, when you are talking about some of the measures we are asking people to fit, you are asking them to make much more substantial changes to their homes and a much more substantial investment than if they are switching broadband provider, for example. There is a real mountain to climb, which is why it is an effort that cannot come solely from suppliers. It needs to be something where you have that independent advice and clear Government comms. Everyone working together and pulling in the same direction is crucial.

***Maria Booker:*** There is also something about people sticking to their words. We heard from a lot of people who have had a bad experience of, say, having a smart meter fitted. We had one person in our focus group who had a smart meter fitted for good reason. She had a long-term health condition, so she had to go to the shop to have her previous meter topped up. It was going to save her from making that journey all the time, so she was really pleased to get a smart meter fitted. After two weeks, it stopped working. Six months later, when we met her, she still had not had it fixed. She had had letters of apology, but still no actual solution.

She was absolutely terrified of what the bill was going to be when it arrived. This was somebody on a very fixed income. Energy bills had gone up during that time, and she had no idea what the final bill was going to be. You can understand, in those circumstances, why people are reluctant to take that risk of changing anything if there is such a financial downside.

***Professor Walker:*** Some element of fragmentation between network operators and energy suppliers makes that relationship quite difficult in terms of which organisation the consumer is dealing with and which they have trust in. For example, avoiding the disconnection of vulnerable customers is quite often discussed by the network providers. That is not the same as their energy supplier, so there is this disconnect between different parts of the energy utility sector.

Q87 **Ms Billington:** What would be your solution?

***Professor Walker:*** In order to provide energy advice in a way that is appropriate to vulnerable customers, we need a more joined-up approach. That involves some sharing of information across different sectors of the energy utility sector, so how to do that in a way that preserves privacy is very important for the customer to maintain a level of trust.

Q88 **Claire Young:** Welcome. We have had some quite alarming statistics on energy literacy. For example, only one in 11 18 to 24-year-olds could identify the correct definitions of all six common bill terms. Around 8.5 million UK adults lack fundamental digital skills, such as accessing online billing or using apps. I want to ask a few questions about how much this matters. Taking that stat about 18 to 24-year-olds not being able to identify the definitions, how concerned should we be about that?

***Maria Booker:*** There is a general point about how much we expect consumers to engage in the market and whether we put the onus on them, or whether the system should be easier to understand. One of our concerns is that people are already saying that the energy market does not work well for them, but we are moving to an energy market that is the same as now but on steroids. It is more complicated, with more different advice and tariffs, and we are expecting people to navigate that maze.

When the Competition and Markets Authority looked at the energy market in 2016, it did a survey of 7,000 customers and categorically found material evidence of domestic customers' lack of understanding of and engagement in retail energy markets. The question is what has changed. Do we expect people to navigate it differently from now on?

There is work to be done in helping people to navigate it and improving energy literacy. On the other side, there is also work to be done in making sure that people who are not engaging in the energy market, and who do not want to, are still protected from any downside. We would agree with what Euan said about the importance of having a social tariff or long-term bill support to ensure that people will always be able to afford the energy they need to stay safe and well, regardless of how well they want to or can navigate the energy system.

Q89 **Claire Young:** Sara, does this lack of understanding hinder the adoption of low-carbon technologies at a household level?

***Professor Walker:*** In the research we have done, it appears that there is appetite for further education and information to enable people to make decisions. Equally, when we have done research on the co-benefits of the energy transition, we have found that people are very concerned that the benefits should be affordable and accessible. That accessibility is important to enable us to deliver an understanding so that the end user is able to access the benefits of lower air pollution, better energy security or improved thermal comfort, for example.

Q90 **Claire Young:** Is that accessibility in terms of it being accessible to understand the benefits, or is it access to the low-carbon technology?

***Professor Walker:*** It is access to the benefits that come from the energy transition. If I am an end user of the energy system and am being told that a benefit to me individually is greater energy sovereignty, how do I benefit directly and access that benefit? That is the research that is coming back. It is a concern about the accessibility of the benefit.

Q91 **Claire Young:** Euan, is the move to dynamic pricing, offset-use tariffs and smart meters likely to increase or decrease engagement with energy use in UK households?

***Euan Sinclair Elliot:*** We are probably going to see quite a mixed picture on that front. We know that some households really engaged with things such as the demand flexibility service and benefited from it. Equally, we know that some groups of households will always be quite unable to engage with it, because, for example, they have medical equipment or electric storage heaters that are particularly inefficient. We need to be aware of the need to meet people where they are in these services, and to make sure that we have a range of tariffs that are accessible to different types of consumers. As I said, we need to have a social tariff so that those consumers on the very lowest incomes are not losing out, despite not being able to engage in the market.

To come back to your point about energy literacy, we did some research with households about how they feel about their house. We know that the majority of households live in a house that is EPC D or below, which we would class as energy inefficient, but most of those people thought their house retained heat well. There is a real lack of awareness about what good energy performance looks and feels like in one’s own home. That is obviously a barrier to moving people along that journey towards getting insulation, because they are already thinking that their home does all right.

Q92 **Claire Young:** I was asking about engagement with the end user. In the examples you gave, they are not engaging because they cannot take advantage of it for practical reasons. Is that lack of understanding also leading to a lack of engagement?

***Euan Sinclair Elliot:*** Yes, there is a lack of understanding as well. This is, again, where some of the advice piece comes in about making sure people are on a tariff that is right for them.

***Maria Booker:*** It is maybe worth highlighting the work that the Centre for Sustainable Energy has done through its energy capabilities lens. That looks at different factors that feed into somebody being able to access the benefits. They include where you live and the house you live in, but also your digital skills, personal and social values, and mindset towards it.

***Professor Walker:*** Some of the citizens panel work that we have done shows that, while there is a real appetite for education, engagement and information, there is an aversion to measures that restrict individual freedom of choice.

Q93 **Chair:** Maria Booker, you mentioned the half-hourly settlement system earlier. How far do you think it is possible to use this to really bring down bills and benefit consumers?

***Maria Booker:*** It is the first step in the process really, after the smart meter roll-out. When the market-wide half-hourly settlement arrangements come in, suppliers will have to settle for each half hour of electricity, and they will be incentivised to push that on to consumers. The expectation is that it will result in more time-of-use tariffs.

In terms of whether that is going to bring down bills for consumers, the point I made earlier is that we are not really sure. It is likely to affect different consumers differently, but the analysis that has been done to date is not very good. It is not based on very robust data. It does not take into account all the pilots that have been done since 2021. We would like to see a better analysis of what all those pilots show, so that, if there are concerns about particular groups that might be disadvantaged, proactive measures can be put in place to address that.

Q94 **Chair:** Has anybody carried out a more detailed analysis that, between you, you are aware of?

***Maria Booker:*** Various academic institutions have looked at particular trials, but as far as we are aware, there has not been a very good meta-analysis.

Q95 **Chair:** I make an appeal to the academics watching out there to perhaps follow your advice.

***Maria Booker:*** We think it is Ofgem's job to do that.

Q96 **Chair:** That is very helpful. One other question springs to mind from your answers on pricing. The Government are implying a move away from a fabric-first approach to energy efficiency. Do you think that is a sensible move?

***Professor Walker:*** Our centre did a bit of comparison between direct bill support and investment in cavity wall and loft insulation. We found that investing the same amount in cavity wall and loft insulation had a modest gain in terms of economic benefit and jobs compared with direct bill support. The direct bill support benefit quickly erodes once you stop paying the bill support, whereas investment in energy efficiency has longer-term benefits to the economy.

The constraint is the construction sector's ability to manage all that additional work. That potentially has an impact on the consumer price index and could push up inflation a little bit. We are seeing that it is really important to have that direct investment in the energy efficiency side of things, as that has a long-term benefit to the end consumer.

Q97 **Chair:** When you use the term "energy efficiency," do you mean insulation, or do you mean insulation and solar, battery storage and cheaper forms of heating?

***Professor Walker:*** This work specifically looked at energy efficiency in terms of loft and cavity wall insulation, and investment of £9 billion across a period of five-plus years in the economy, so we are looking at a more fabric-driven approach. This enables longer-term bill reduction for the end consumer.

We are very focused on demand reduction as a research centre, because we are very keen to see that the overall benefit of demand reduction is a smaller electricity system. Our electricity demand is expected to increase somewhere between 50% and 150%, depending on which scenario you look at. That is a huge investment in our electricity system, and we are at risk of not hitting our net zero targets if we do not also reduce demand.

Q98 **Chair:** We do not have a huge amount of time. Do either of you, Euan or Maria, have anything to add, or do you largely agree with what Sara is saying?

***Euan Sinclair Elliot:*** We would largely agree, especially for households on low incomes that are living in the most inefficient homes. We are clear that insulation is the first thing that needs to be done to help them bring down their bills in a sustainable and long-term way.

**Chair:** Maintaining a presumption in favour of fabric first.

***Euan Sinclair Elliot:*** Yes, absolutely.

Q99 **Luke Murphy:** Welcome to our guests. You have touched on this already, but are there regional or income-related differences in perceptions of fairness of the costs of net zero policies?

***Professor Walker:*** The short answer would be yes. Designing policy responses that are regionally sensitive is really important, because that enables us to overcome inbuilt inequality in some of our existing infrastructure. This is important to reflect from a transport point of view, and not just a buildings point of view. We need investment to enable people to move away from fossil-driven transport towards public transport and active travel. That regional inequality is really important to address.

***Euan Sinclair Elliot:*** We think there can be strong regional benefits. We know that some areas, such as the north-west, have a greater concentration of energy-inefficient homes. Progressing with the transition and insulating those homes is going to deliver regional benefits in some areas that have historically missed out.

***Maria Booker:*** We have not done any in-depth work on geographical differences. Our focus groups on energy focused on people in Scotland, and particularly the north of Scotland. There was a feeling that people who live close to energy generation feel a disconnect in possibly having higher energy bills due to the rural location in which they live.

Q100 **Luke Murphy:** Would you say there is merit in allowing communities to feel greater ownership of the system, rather than being passive recipients of it? What would you recommend?

***Maria Booker:*** I echo what Sara said about taking a local approach. Not all areas will feel the same about the energy transition, because their local context is different.

Q101 **Luke Murphy:** What would you most like to see included in DESNZ’s public participation strategy?

***Maria Booker:*** We would really like to see a focus on involving people directly. In terms of DESNZ’s response to this Committee, we could like to see a lot about marketing, communication and education, but we think the key to getting a fair transition is having people with lived experience involved in shaping the solution. We would really like to see a focus on that.

Q102 **Luke Murphy:** Is there anywhere you would highlight where it has been done well, either in the UK or elsewhere?

***Maria Booker:*** Do you mean in terms of Government action?

**Luke Murphy:** I mean where communities have had a sense of ownership of a scheme that the Government should look at and say, “That is a good example of local government policy,” or maybe a community organisation has done it. I do not know.

***Maria Booker:*** There are lots of examples of community ownership, but we would like to see that involvement at every level. What we have seen lacking so far is people really being involved in shaping the solution at Government level. For example, in the report that we did, people with lived experience of being on a low income really wanted to be involved in addressing the power balance with landlords. They wanted to have a seat at the table with energy companies and social housing providers to come up with solutions for addressing that imbalance of power. That is the kind of solution we would like to see people being involved in.

Q103 **Luke Murphy:** Are there any other views on what you would most like to see in the Government’s public participation strategy?

***Professor Walker:*** In relation to community wealth building, there is an example from Preston of an anchor institution trying to work in partnership to move its service and procurement to local supply chains. It was able to move its proportion of local supply chains from 5% in 2013 to 18% in 2017. On wider Lancashire impact, use of local supply chains increased from 39% in 2013 to 79% in 2017. Using local procurement and feeding that benefit back into the community leads to greater ownership of the local economy by community members.

Q104 **Luke Murphy:** Can every community do that and see the benefit, though?

***Professor Walker:*** With anchor institutions, there is the potential for greater benefit to the local community and local supply chains, yes.

Q105 **Luke Murphy:** To push that, it works if one community is doing it, but if every community is doing it, surely they are sourcing directly what would otherwise have come from another community. Does it actually make an overall difference? If every community is doing community wealth building, there cannot be a net benefit, can there? Is it not just in the ones that do?

***Professor Walker:*** Yes, in the ones that do, you would see a net benefit. In the ones that do not, potentially they are losing out on some of the services that go beyond their local boundaries. The principle here is that, by being an anchor institution and developing local supply chains, you are supporting financial power to local communities and creating more just labour markets.

Q106 **Luke Murphy:** Is there a role for trusted intermediaries to play in communicating information on the energy transition, and how can the Government best identify those intermediaries? Thinking about the organisations or the people who are communicating this information to the public, how can we better do that, and who might those people or institutions be?

***Maria Booker:*** We think there is a role for trusted intermediaries, based on the research we did. People identified Ofgem, local councils and local energy champions as people they would trust to give that advice.

Q107 **Ms Billington:** Do you think Ofgem is a trusted intermediary that is capable of the communication required for this task?

***Maria Booker:*** That is a good question. I am not sure we are qualified to answer. We can say that is what people felt. That is an organisation that people felt they wanted to hear from and that they would trust to give that advice.

Q108 **Luke Murphy:** Do people know what Ofgem is? That is not a reflection on Ofgem. I am not sure that people should necessarily know what it is. Do we not know?

***Maria Booker:*** I do not know the full awareness of Ofgem, but that was what people said in the research.

Q109 **Chair:** I am curious to know whether people understood exactly what Ofgem is. DESNZ is going to publish a public participation strategy this year. It told us that it will set a framework for how Governments and other organisations can more effectively engage the public and empower them to participate in the transition to net zero. What would you most like to see included?

***Maria Booker:*** I would go back to the answer about involving people with lived experience. Public engagement has a number of strands, from behavioural science to communication, education and involvement. We would like to see more emphasis on the involvement strand.

***Euan Sinclair Elliot:*** A key element of it is thinking about the pinch points where we can really get households to think about this, such as when buying or selling their home, for example. That might be a time when people are more likely to think about making these upgrades, so we think about the things that go around that, such as the welcome changes to EPCs that are coming. That is a time when you are more able to give households advice about making changes to their homes and they are more open to it. It would be good if the strategy really thought about how we can get people at a point when they are already more likely to be interested.

***Professor Walker:*** Our research on public consultation and conversations with the general public on the energy transition shows that a key message that is of interest to them is what the economic development opportunity is and how much job creation the energy transition can provide. I would like to see those co-benefits emphasised in the messaging. The research shows that even the climate-unconvinced see economic development as a positive message for action on climate change, regardless of the fact that they are climate-unconvinced.

Q110 **Chair:** I have not come across "climate-unconvinced" before. I have come across "sceptic" and "denier," but not "unconvinced." You talked about economic benefits. Are you able to define that more closely? Do you mean lower bills, better-paid jobs, both of those things or something else?

***Professor Walker:*** In terms of how the general public see it, it is to do with their cost of living and local job creation—and not just more jobs but better jobs.

Q111 **Chair:** Did you identify energy security as one aspect that people are interested in? We have had evidence from others that this is the No. 1 issue.

***Professor Walker:*** From the work we have done so far with our citizens panel, there is some interest, but it is not a high priority in those conversations, other than when you start to explain that some of the recent high electricity and gas bills have been due to global markets. Then there is an understanding and a link to energy security and energy sovereignty.

**Chair:** Thank you very much for your evidence and time this afternoon.

## Examination of witnesses

Witnesses: Geraldine Bolton, Professor Richard Fitton and Andrew Sissons.

Q112 **Chair:** Welcome back to this afternoon's session of the Energy Security and Net Zero Committee and to our second panel. Would you please introduce yourselves?

***Geraldine Bolton:*** Good afternoon. I am Geraldine Bolton. I am the chief executive of the Confederation of British Metalforming. We represent 200 companies around the country that make components from metal, predominantly steel and aluminium, for all sorts of market sectors. Eighty-five per cent of our membership are SMEs, and we have a number of tier-1 suppliers, which would be further down the supply chain. We also have companies such as JLR in our membership. I am very grateful for the opportunity today to be the voice for SMEs, because it is often very difficult to get that voice into Government.

I also sit on the board of the Black Country industrial cluster, which helps companies locally with their net zero journey. It has been very fortunate in securing local funding from the West Midlands combined authority to do some good work.

***Professor Fitton:*** Good afternoon. Thanks for inviting me. My name is Richard Fitton. I am a professor in energy performance of buildings at the University of Salford. I am also part of the RICS residential property group.

***Andrew Sissons:*** Good afternoon. I am Andrew Sissons. I am deputy director for sustainable future at Nesta, which is a charity that focuses on climate change and particularly heating.

Q113 **Chair:** Thank you to all of you, and you are very welcome. We look forward to hearing what you have to tell us. I will start the questions by asking about Government communication and how effectively it conveys the long-term economic and strategic benefits of investment in energy infrastructure, particularly to businesses.

I will start with you, Geraldine Bolton. Do you think the Government have done enough to explain the long-term benefits of energy infrastructure investment to industry and business?

***Geraldine Bolton:*** Yes. The communication is good from Government. We now hear some good noises through the industrial strategy. We are hopeful that they are keen to interact with business. However, going through 200, 300 or 400-page consultations and policy documents is very onerous. At CBM, we have a policy adviser, and his job is to look through the consultations and the documentation that come out and work out what is going to affect our members in the metal forming industry. Then I and our lobbying people can make sure that we are getting that message out to our members.

As I said, we find it difficult to get the SME voice into Government, so we would like more support with that. We send out weekly policy updates, which summarise all the things that have come out from Government that week and what businesses need to do. Government could communicate more with the sector-specific trade bodies, rather than bodies that have a very diverse membership and are often speaking on behalf of the bigger companies. That is our personal feeling. We have good examples of how they have not communicated with the SMEs.

Q114 **Chair:** I know that Polly Billington has some questions that will perhaps go further into some of what you have said. Before we do that, Andrew Sissons, polling has shown a public perception that infrastructure costs too much and can take too long to deliver. How can the Government best address these concerns?

***Andrew Sissons:*** Infrastructure is obviously a broad category. On energy infrastructure, the key thing to get across is that the Government have stripped away as much process as possible. There are various stories about bits of the planning system holding things up, and it is really important for the Government to be clear that they are trying to tackle those, without cutting across due process and ignoring the legitimate concerns of local people.

The second part is about being much more organised in how they plan infrastructure delivery. The thing that people delivering infrastructure need is a clear plan of what is going to happen, when and in what order, such that businesses and parts of the public sector can organise what they are doing.

A really good example of that is offshore wind. I am sure you have heard this complaint several times. The process, ultimately, is a bit of a free-for-all in terms of bidding for permissions, securing land rights from the Crown Estate and grid connections, which is probably the biggest complaint. That often stems from the lack of a clear plan. Rather than the Government saying, "Here is what is going to happen. Here are the parameters everyone is working to," it is more of a free-for-all.

That side of the planning that gets overlooked, on which the Government are trying to make progress, is arguably more important. The more clarity you can give to the private sector about what is going to happen in what order, the more chance you have to tackle that. It means that the process of planning infrastructure becomes less uncertain, less back and forth, and much more certain. That will and should, in time, drive down costs. It is not something where you can drive out infrastructure costs of straightaway.

Q115 **Chair:** Do you think the changes in the Planning and Infrastructure Bill, for example, will improve this situation?

***Andrew Sissons:*** Broadly, yes. The Planning and Infrastructure Bill focuses more on barriers that come later in the process, so the objections site by site. The bit that I am emphasising more is the early-stage planning, the thing that GB Energy and the Government, with the Crown Estate, may well be able to get more into. That is to say that, actually, the state has a role not just in the planning system once we have decided where to build pylons, but a role further upstream to say, "We will set out more of a strategic plan for this." Some of that is happening through NESO and the Government's clean power mission, but that is the piece where there is probably more to do.

Q116 **Chair:** We have just concluded a short inquiry into the national policy statements, as you will know. Is it your view that the changes the Government have made there will start to address these points as well?

***Andrew Sissons:*** Yes.

Q117 **Chair:** Good. Richard Fitton, is the current public debate too focused on costs and not enough on the opportunities of the energy transition, so jobs, growth and energy security?

***Professor Fitton:*** I can only speak to the domestic sector. I see Government trying to make the right moves, but for a long time, all colours of Government have just gone up and down, up and down. There has been no clear strategy for net zero across many Governments. From a professional's point of view—so the people who are advising and planning, designing and assessing buildings—we see a constant move in what we are trying to achieve, and there is never one constant goal.

The simple thing for me—on retrofit, for example, which is a large infrastructure project—is just having a strategy. We all need something to aim for. Where are we going to do it? What are we going to do? How are we going to do it? Then the professional sector, the advisory sector, the building sector and the house building sector all have a common goal. We have this constant waiting for things. It stops and then something else will start. It does not help anyone.

Q118 **Chair:** As you have mentioned retrofit, are you optimistic that the warm homes plan will deliver the certainty that you refer to?

***Professor Fitton:*** I have not seen the warm homes plan yet.

**Chair:** Neither have we.

***Professor Fitton:*** I have seen the settlement figure, which was positive. Let us wait to see. As ever, the devil will be in the detail.

Q119 **Ms Billington:** How well do you think businesses understand the need for long-term infrastructure investment in net zero, in the form of grid upgrades and so forth?

***Professor Fitton:*** Again, I can only speak to the domestic sector, not the industrial sector. Take housebuilding as a classic example. We deal a lot with housebuilders, trying to help them build more efficient homes. If they had one standard and one date to build to and to line their sites up for, that would make life much easier. However, we have this, "We are just waiting for this policy to land. We are just waiting for this to land," all the time. That does not allow any planning to happen, whether that is formal planning, grid planning or the planning of houses on site. We see the same with retrofit. This lack of a strategy does not help anyone plan anything.

Q120 **Ms Billington:** I am delighted, by the way, to hear you describe retrofit as a large infrastructure project. Please convey that to the Government. We will be doing the same.

Geraldine, you are obviously working with a lot of small businesses. Do you think the businesses in your trade body understand the need for long-term infrastructure investment in net zero?

***Geraldine Bolton:*** Yes, loud and clear. The grid connection is a serious problem for business. We have a company that has way more solar-powered energy than it needs. It would like to supply that to some of its other sites or the local schools and hospital. It is being quoted 14 years to get that connection. If some of my members were to transition from the large gas users that they are to electricity in the first place—and there are all sorts of problems in that transition—there would not be the grid infrastructure there anyway. There would not be the grid connection. That is a serious problem for business.

Q121 **Ms Billington:** I was going to ask what the most significant barriers are in transitioning to low-carbon technology. Grid infrastructure is one of them. What other ones are there, and how are they perceived by your businesses? How are they going to navigate this landscape?

***Geraldine Bolton:*** It is very difficult for them to navigate. The obvious one is cost. My members are very big energy users, but they are not classed as an electricity-intensive industry. Predominantly, that is because they are very big gas users. No matter how much the Government want us to electrify, when you are melting at very high temperatures, it is very difficult. Please do not forget about gas.

Also there seems to be an anomaly in the SIC code system. My members actually file to 32 different SIC codes. While we have a couple of companies that would certainly qualify for the EII package, such as Somers Forge and Bifrangi, they cannot get the support because our SIC code for forging, 25500, is not on the list. We do not really know why it is not on the list. Those are some of the challenges.

The investment is an obvious one. We have been running climate change agreements for 25 years now, which is a process of having to improve your energy efficiency every year. We are also a trade association—one of very few actually—that uses our own staff to deliver energy savings opportunity scheme audits, which is a mandatory requirement from Government to business.

We have a hell of a lot of intelligence on energy efficiency opportunities, but the Government still want us to tighten the targets in those agreements. A lot of that low-hanging fruit has been done. We have now been doing ESOS for 12 years over the three phases, probably to at least 30 of our members, and we still see that some of those opportunities have not been implemented. That has to be because they just do not have the money to make those final steps to more energy-efficient furnaces, for example.

Q122 **Ms Billington:** Do you have a solution that we can recommend to the Government that would help this really important sector, which underpins an enormous number of other supply chains and sectors, that you are representing here? We could make a recommendation that the Government could help it in some way.

***Geraldine Bolton:*** Yes. Listen to the SMEs to start with. Let us have a voice. So often, they are making policy, in our example, by listening and talking only to the material manufacturers and not taking any consideration of all the supply chain that will make those components from the material. We can tell you what we have done and what is left to be done, but we are not listened to. They talk about, "What is the demand for steel?" It is no good having a demand for steel if you have not listened to the supply chain's issues in that example.

When you take the bigger picture into account, you see all the other issues that businesses have, and we have lots of examples. We have CBAM. We had to try really hard with Treasury recently to make it understand that its joint working group for CBAM was not representative of our supply chain in the UK steel sector, because CBAM applies to derivative products as well, which is what we do. In the end, it let us have a seat on that working group. It was already on the second meeting by this time, and it acknowledged that it was wrong and had assumed our voice would be represented.

Our voice is not represented as SMEs in an awful lot of things that happen within Government. We could look at the demand for energy, the capacity and how it is used. We could do that study because we have a lot of reporting information every year or every two years for our climate change agreements. Like I said, we have big energy users. I am seeing a company a year going out of business. It is okay having a consultation in a strategy about the cost of energy, but 65% of our bill is tax. Even if you were to bring the cost of energy down, just say in electricity for example, it is not going to make an awful lot of difference to the cost to our businesses.

Q123 **Ms Billington:** I have some questions about greater access to tools, training and so forth. It sounds to me like you have a lot of expertise within your staff and your workers, but they cannot do the next stage because currently the investment that is required makes the business model topple over. Is that right?

***Geraldine Bolton:*** Yes. They are now being pushed a lot more by their customers to give them that information on net zero, and half the time they come and ask my staff to do it for them. We had some great funded courses from Birmingham University, where they could learn about the software packages and how they could start to map their net zero journey. They were very good. We were grateful for that funding.

Q124 **Ms Billington:** That is more expertise in knowing what the gap is. What are the solutions to bridging the gap?

***Geraldine Bolton:*** The trade association can deliver a lot of the solutions. We can work with the right organisations. We like to think of ourselves as a one-stop shop. We work closely with a lot of the catapult sites and universities such as Birmingham and Imperial College. We can go through the consultations. We can respond on behalf of our members. We can look, and have looked, at very good net zero software packages where they can chart their journeys. We can sort out the wheat from the chaff so that we can recommend good systems to them.

Q125 **Chair:** The spending review included an announcement about support for an additional, I think, 7,000 businesses, many of them in manufacturing. I wanted to clarify whether you feel that your members are covered by that extension of support for energy bills.

***Geraldine Bolton:*** I am really glad that you asked that question. I am very worried that those 7,000 companies are the same energy-intensive companies that already receive the packages, because the calculation for an energy-intensive company is based on a threshold that does not work for us. It does not take gas into account. I do not think that any of my members will qualify.

Q126 **Chair:** You think the qualification for the new scheme is the same as the old one?

***Geraldine Bolton:*** It is the same people, yes. Also, we pay for those industries to have that exemption, so our taxes become more demanding.

Q127 **Chair:** That is really quite worrying. I very much appreciate the evidence you have been giving. You talked about some analysis you are doing as a trade body. It would be very helpful to us if you sent that when it is complete, and we will consider it as part of our work as well, if you are happy to share it with us.

***Geraldine Bolton:*** Yes. I am very well aware that this Committee usually works by somebody writing in first, but we were privileged to have the invitation and we will certainly be following up with any information that is useful to you.

**Chair:** Thank you very much. I hope it is beneficial to you as well.

Q128 **Claire Young:** These questions are on communicating large-scale infrastructure projects and connecting them to everyday lives. How can we better connect national infrastructure projects to local communities and people's everyday lives?

***Professor Fitton:*** I can give the smart meter roll-out as an example of a large infrastructure project, although one that was not funded by Government. It is funded by the supply side, or us, indeed. Clearly, there have been ups and downs with the smart meter roll-out. I think we can all agree on that, but we are now well on the way and are in well over half of the homes in the UK.

We mentioned plenty of technologies in the earlier sessions: air-source heat pumps, batteries, solar. Government should try to link the things together, so linking the benefits. With a smart meter, great, we get an in-home display. It tells us how much energy we are using, which is, for someone like me, very exciting, but for others probably not. It opens the door for people to start making the time-of-use savings and the savings on heat pumps, which can be much further developed if they have a time-of-use tariff and they are on the correct tariff.

We have the spark gap in the UK. We have this difference between gas and electric of about four to one. If we have an air-source heat pump that is running at 400%, which we have measured that they can do—not all of them do if they are not commissioned right, but they can do—there is this decrease in the tariff or the unit rate that the time of use can bring about, and particularly things such as type-of-use tariff. This is where we are on a different rate because we have a heat pump or an EV. That can only be delivered by the smart meter roll-out.

Government should attempt to join the benefits of different projects together. It is like when they dig up the road: "It is because new things are going in. You are going to get fibre next week." We should sell the benefits. As the earlier panel also stated, the benefits of retrofit—electrification of heat, deep retrofit and fabric-first retrofit—are that it brings about other things. It brings about better levels of thermal comfort and much better levels of indoor air quality if it is done right. The building takes a short amount of time to heat up and a longer amount of time to cool down. There are many benefits that are never sold.

The second we start to sell these benefits, it clearly brings a massive benefit to industry, because then we can get out and do these things. Also, the people who are not on Government-funded schemes, so the able-to-pay or willing-to-pay sector, who do not tend to engage very well in this, then start to listen more, because they see the cost of living crisis and the healthy homes issues, and we build that trusted marketplace.

I am a massive advocate of measuring the performance of buildings. That is my job, basically. I measure how buildings perform. The smart meter has opened many doors to our research. Instead of using EPCs, although I am a huge fan of EPCs, we can now start to rate our buildings using smart meter data. I know whether a retrofit has worked. I know whether a retrofit is desperately needed, because I can rate the energy performance of that building. I can say whether the contractor has done a good enough job, because I can find out how much heat that building is using after the retrofit.

I can spot that a heritage building is not as bad as we think. Our research that we are publishing at a conference tomorrow states that on average, over a small sample, about 11% are better than we think when we measure the thermal performance of these houses. It allows us to zone in and do things.

Long story short, if we sell the benefits of the infrastructure that we are putting in, in a friendlier way that people can understand and ultimately benefit from financially, that is probably the way we should be heading.

***Andrew Sissons:*** There are a lot of things the Government can do, but it helps to tell stories about where this has been done elsewhere. There are a couple of situations. One is the original development of the national grid in the 1950s. We are effectively trying to renew the big investment we made in the 1950s, which was really successful and brought stable electricity supplies at the same price to the whole country.

The second is the experience of France in the 1980s, which is cited a lot in the debate about industrial electricity prices. France has quite cheap electricity because it built an awful lot of nuclear power in the 1980s. That means that it does not rely on gas to set the electricity price, which is the central problem we have with electricity prices in Britain. It does not need to take prices from gas power plants.

The important thing is not the nuclear bit, because you can do what France achieved these days. In fact, France is building more renewables now. It is not the nuclear bit per se. It is the fact that it built a lot of infrastructure, enough to provide all of its electricity supply, in that period. Obviously that had quite high up-front costs. During the 1980s and 1990s, when Britain had a big North Sea gas bonanza, France probably had higher energy costs, but now there is a very big payoff.

There is that story about how we are trying to get to a place. The reality is that the payoff from the investment in the energy system is not going to be immediate. It is going to take some time, and that is painful. There is a story about how, once we have done this, we can get to a place like France did, investing ahead of time, or like we did in the 1950s with the national grid. "This is what we are aiming for. It will take some time, but we will get there." Some of those stories about the big picture matter as well as the local benefits and the things that impact on people's bills.

Q129 **Claire Young:** Do you have any thoughts about the local communities angle, rather than everyday lives?

***Andrew Sissons:*** The local community side is really valuable. The net zero transition offers massive opportunities of the kind that Professor Fitton has talked about, because it creates periods of very cheap electricity. It creates the opportunity to build your own stuff, whether that is home solar panels or community schemes, and that is great.

Community energy, as well as people's own energy supplies, is super important, but at the same time, not everybody wants to take part in that. A lot of people are really busy. Most people do not even switch energy supplier when they probably should, so you have to be a little careful of the idea that we are going to get everybody involved in community schemes. Just being able to say to people, "We are trying to get your bill as low as possible. We are doing it for this reason" matters as well.

The community bit is really important. Where communities are taking on new energy infrastructure, there is a strong case for lowering their bills, but there is also a point about how, nationally, this is the right thing to do so we can have a future that is much more like one where energy is affordable and much less like the current one.

Q130 **Claire Young:** Geraldine, did you have anything to add? In particular, do you have any international lessons from other countries that have communicated the energy transition much better than here?

***Geraldine Bolton:*** What Professor Fitton was saying about the measuring is very important. The Black Country industrial cluster, through the funding it received, which was several millions of pounds, carried out an enormous number of energy surveys, which were free of charge to SMEs around the West Midlands area. That has enabled it to key all that information into a database and start to map where we are with things. Then we can share the case studies and intelligence with Government, so more people will read those case studies and think, "That applies to me".

We have international links. We are members of our equivalents in Europe and internationally, and we all share country reports at our meetings. It is interesting, with regards to energy, the different types of support that is given in different countries, and it enables us to gather a lot of up-to-date intelligence of what is going on in our counterparts around the world.

Q131 **Claire Young:** Do either of you have international examples?

***Professor Fitton:*** I have one or two. To flip it the other way round for a second, if we look at infrastructure—I do a lot of work with the International Energy Agency—we are actually the envy of a lot of Europe for our smart meter roll-out. We get the best data. We get it how we want it, and in a lot of buildings.

What the Europeans have started to take on board is using that performance data to generate energy certificates and guidance for their people, so as measured. You display on your front door down here your energy certificate that says how good or bad this building is. It is live data. It is actionable data that we can make an improvement on. That is one.

North of the border, the HEETSA scheme has a really joined-up approach to retrofit and that large-scale infrastructure project of joining all the dots together. There are some good schemes.

Q132 **Wera Hobhouse:** To come back to what you said about France in the 1980s—and I asked the previous panel the same question—are the Government very honest or clear about the cost of the transition and where that cost is divvied up and lands? Is that for industry, the consumer or the taxpayer? Do you think the Government are very clear and communicate, if they are clear, clearly?

***Andrew Sissons:*** The Government story is broadly right. The thing that people still really understand is that, in 2022, there was a huge crisis that was caused primarily by gas and the impact of what happened in Ukraine. It is really important to remind people that, fundamentally, the big problem in our energy system is that reliance on gas, and what happened in 2022 and around then, which has not gone back to normal.

The fact is that a decent chunk of electricity bills are the levies that we talk about a lot at Nesta. Most of those levies are paying for renewable energy. It is about £150 on a consumer bill. It is a bit more variable on an industrial bill, but it particularly hits, as Geraldine said, companies outside the energy-intensive 7,000. Most of those levies are backward looking. They are funding things that were in the early days of renewables, but there is a bit of denial that that is a real cost.

At the same time, the basic trade you are making with net zero is that you are investing a lot of money up front to get much lower running costs in the future. Once you have built wind turbines or solar panels, they are free. Once you have bought electric vehicles and heat pumps, they are super-efficient, but we are not necessarily admitting the point about the up-front investment enough. That up-front investment is, in my opinion and that of most people who work in energy, worth it. It is important not just from a climate point of view but from a cost point of view, but it is front-loaded.

The fact that interest rates went up a few years ago around the world has not helped, because we are having to invest a huge amount of money at higher costs. That has raised the cost of net zero as well, which has not always been admitted. The world changed a lot in 2021 and 2022 around that. The costs of a lot of things changed quite dramatically.

I do not think there has been enough willingness to accept that, yes, net zero has some up-front costs and that the benefits mostly have not accrued yet. At the same time, the analysis that, broadly, it is the right thing to do and the best way to be cheaper, and that what has gone wrong is primarily about gas, is still correct. You can tell both sides of that story without having to drop the narrative about gas. When people say, "This is all because of net zero", that is not true, but it is also wrong to deny that it is anything to do with net zero because, at the moment, we are facing increased costs from it.

Q133 **Chair:** Is there an inevitability that, in the short term, bills are going to be higher?

***Andrew Sissons:*** If you mean higher than they are now, possibly not. The gas market is really volatile. People will talk about an LNG glut. Lots of people have invested in liquid gas, which could lower costs. At the same time, the geopolitical environment, as we have seen in recent months, is really volatile, so it is really uncertain. Prices could fall. Equally, prices could go up. We are in the hands of whatever happens to gas markets. There is no escaping that, and there will not be any escaping it until such time as we have stopped relying on gas.

Q134 **Chair:** The issue is that we are at the mercy of the market. That is still the primary factor.

***Andrew Sissons:*** Yes, and until such time that gas-fired power plants are no longer called on to meet the gap, whatever is needed, most of the time, that will be the case.

Q135 **Chair:** We were talking about the use of flexibility in the first panel. How quickly can that be introduced as a way of bringing down bills more widely? Those of us who have overnight tariffs can already do this, but lots of people cannot.

***Andrew Sissons:*** You can already save loads of money with flexibility. For example, if you run a heat pump, you can save, we think, about 15% from the normal headline price cap rate just by being on a flexible tariff, not even using your heat pump flexibly. You can save more if you are able to preheat and move things round.

Q136 **Chair:** Is that enough to pay for the up-front cost?

***Andrew Sissons:*** Sorry, this is just on your energy bill.

Q137 **Chair:** Yes, but is that enough to cover the up-front cost, even if you spread it over however many years?

***Andrew Sissons:*** Not yet, no. We need the levies to be shifted as well, I am afraid.

Q138 **Chair:** You have made a recommendation on levies, haven't you?

***Andrew Sissons:*** We have.

**Chair:** Tell us more.

***Andrew Sissons:*** This is a really important point, and it speaks to what Geraldine said. Electricity is the fuel of the future. Industry already uses a lot more electricity as a proportion of its energy than homes do. Homes use a lot more gas. Electricity is the fuel of the future for most things. It is also getting a lot cleaner and we tax it, as I am sure you know, at a much higher rate.

An Institute for Fiscal Studies chart last week showed that, when you factor in all the taxes, household gas is actually subsidised by the Government, whereas electricity is taxed. It is quite a stark idea that the dirty, volatile fuel is quite heavily subsidised for homes, whereas electricity—the clean fuel we are trying to move to—is taxed. It is even worse for businesses, particularly non-giant businesses. We are in a position where we are taxing electricity. No other European country has the same balance of taxing electricity and not taxing or subsidising gas. We are in a position where that needs to change.

Q139 **Chair:** So-called rebalancing the levies is your proposal, isn't it?

***Andrew Sissons:*** It is. There is a nuance on the industrial side. Sorry, but this is hopefully worth explaining. Because industry uses quite a lot of electricity, it pays quite a high share of the levies, whereas households use a lot more gas. If you were to shift all the levies on to gas bills across the whole economy, household bills would go up and industrial bills would go down, because households use so much more gas.

In our recommendation, we do not want to raise either industrial or domestic bills, but we do not think domestic bills can rise to pay for this. We therefore said that you need to separate levies for households and industry, and deal with it through a separate mechanism. I do not have an answer to the industrial side, because it raises £6 billion a year to pay for things that, largely, we cannot get out of on the industrial side. We think that levies need to be moved from electricity on to gas, certainly for households, and ideally for industry too, although that needs more careful thought. We think that vulnerable households, so the households on lower incomes, should be compensated for that and Government should try to reduce other levies.

Q140 **Chair:** You have just reiterated Geraldine's concern about the way business is paying for everything through tax. One concern about the shift of the levies is that, as fewer people use gas, a smaller group of people, including especially those people in fuel poverty, are going to be left paying the cost. What is your solution to that concern?

***Andrew Sissons:*** Any levy rebalancing needs to be accompanied with generous targeted support, higher than the current warm home discount, for those households. We support the Government expanding the warm home discount, but we would like to see the amount raised.

Q141 **Chair:** You would use the warm home discount to support gas customers?

***Andrew Sissons:*** Yes. Potentially, yes.

Q142 **Chair:** Before we move on to our next question, I want to come back to what you were saying, Richard Fitton, about the roll-out of projects together. That was very interesting. We talked in the first panel about moving away from the fabric-first approach. What is your sense of the right approach to energy efficiency measures?

***Professor Fitton:*** It is a really active topic in research at the moment—let me put it that way. My view is that you heat the building; you do not heat the street. It does not matter how you heat it, or whether you heat it with gas. There are a lot of savings to be made from gas, which I will talk about in a second, and which we looked at with Nesta. There are obviously savings to be made with air-source heat pumps, but it seems, in my opinion, somewhat foolish to put in a low-carbon heating system that is bigger than it needs to be and is heating Manchester, not the front room. Call me crazy, but that is my opinion.

Clearly, that costs more, but it also adds more things. When we insulate correctly, we always ventilate when we insulate. That is part of our standard for retrofit. We make the home healthier and the air quality better. By that virtue, hopefully we increase the health of the occupant, but we also give them a system with a very low running cost if it is set up right, and we clearly hit our carbon goals.

It does not sit right with me to think about just going and putting heat pumps into buildings. Some buildings, yes. For some heritage buildings where we cannot stick insulation everywhere and things like that, we make exceptions, and we have to do that. It is a common-sense approach. Ultimately, I find it difficult to imagine that we should not be doing fabric first. I hear a lot of talk about heat pumps. Every single day of my life, I hear talk about heat pumps. We seem to be going away from insulation and fabric measures, which seems counterintuitive to me.

Q143 **Chair:** As you have mentioned, there is talk about heat pumps, but there are other forms of electric heating. Do you think a mistake is being made in emphasising heat pumps too much? I have come across electric boilers with battery storage.

***Professor Fitton:*** I have researched electric boilers, infrared heating and direct electric. All electric heating is about 100% efficient, with the exception of an air-source heat pump, which will go up to around 400% efficient, but with that significant cost.

If we step back for a second and look at how we generally get our energy advice in the UK, it is through the EPC. The EPC very infrequently recommends an air-source heat pump, because it is a cost-driven metric. If we make it into a carbon-driven metric, it will start to recommend heat pumps. Hopefully that will happen in the not-too-distant future. We talk about encouraging people to decarbonise, but the main certificate that we have in all our estate agents' windows does not do that. We are fighting a battle.

Also, coming back to Wera Hobhouse's comment, who pays for all this? Ultimately, the able-to-pay market can pay for it, but who makes sure it all works and the payback is right? It just does not happen. The most expensive thing that anyone in this room will probably ever buy is a house. We do not measure the performance of it. We do not give it a mile per gallon. We give it a certificate. We measure the blower door performance and the air tightness, basically. Ultimately, that is all. If we did that with cars, we would be in a different game, wouldn't we? We would be talking about a different thing.

We have to start focusing on putting this big stuff in, but when someone has to pay for it, they have to make sure it is right as well. Otherwise, we are not going to make our carbon savings and people are going to disengage with carbon issues.

**Chair:** Thanks very much. We have had other people making similar points. It is very helpful as a back-up.

Q144 **Ms Billington:** Geraldine, do industry bodies such as yours and the trade unions have a role in communicating the benefits of the energy transition?

***Geraldine Bolton:*** Yes, they do. We can get SME consortiums together to communicate as a bigger body, so that Government only have to speak to one body, rather than trying to speak to all the different trade associations individually. We are members of UK Metals Council, a group of 11 metals trade associations. DBT attends every one of our meetings and gets a lot of intelligence from them. A company's trade body is the trusted organisation it can go to for advice that is specific to it from experts in its industry.

Q145 **Ms Billington:** You have also pointed out that what Government sometimes do is, frankly, talk to the big boys and forget the crucial elements of the supply chain. One possibility is encouraging greater information sharing between the larger-scale businesses and SMEs. How useful would that be, before I ask whether there should be an alternative?

***Geraldine Bolton:*** Yes, and not just between the big trade associations that represent the bigger companies, and trade associations such as ours that represent SMEs, but, for example, JLR joined our membership about 18 months ago. The whole idea of it joining our organisation was so that it can communicate much further down the supply chain, because it would traditionally deal only with the tier 1s, which are let loose to deal with the rest of the supply chain however they want to.

As part of the sustainability journey that JLR has been on, it is now able to pass its best practice on to all the other supply chain members in our membership. They might not all be suppliers to JLR but, on sustainability, I am sure they can learn from it. We held a members' day in May, and JLR came to talk to our members. It was very interesting, and it encouraged other members to start sharing their sustainability journeys. Linking the OEM further down the supply chain is also a great way of communication.

Q146 **Ms Billington:** Is there something systemic or systematic that we could do, or recommend that Government do? Because you happen to have JLR in your trade body, that has definitely improved and helped you, but that is voluntary by JLR; it is lucky for you. What is a systemic way that we might recommend so that this kind of relationship can develop? Is it so valuable that it needs to be introduced systemically, or is it just good luck?

***Geraldine Bolton:*** It is very valuable. For example, JLR would probably be involved in some Government strategy for the automotive sector, but what would not be involved are all our supply chain members. When they make these strategies for steel, for automotive or for aerospace, they should be mandated to have the supply chain represented on those councils. The UK Metals Council tried to do that with us. We have tried to liaise with the Automotive Council, but it does not want to speak to us because it does not have to.

Q147 **Ms Billington:** That is really helpful. How can industry be supported by Government to act as a communicator and advocate for clean energy innovation?

***Geraldine Bolton:*** It would be that Government insist that we are on these councils. We have asked to be on the Steel Council, and whether we will get to be on there is another thing, but we should because we use the steel. If they want to sell their steel in the UK, they need to listen to why we are not buying it from the UK in the first place.

Q148 **Chair:** This sounds like something that should be part of the industrial strategy.

***Geraldine Bolton:*** We hope to get involved, at least in the energy consultation. Otherwise, those same representative bodies will get the same 7,000 companies the support they have always had.

Q149 **Chair:** Talking about automotive, is the zero emission vehicle mandate behind JLR's engagement with you? For it to hit its targets, it needs the rest of you to be able to supply to it.

***Geraldine Bolton:*** During the covid crisis, JLR was probably not even aware of who was in its supply chain. It recognises that it needs to liaise more to know what is going on in the supply chain. It is okay for Government to bail out British Steel, but who is going to bail out the supply chain?

Q150 **Chair:** So large-scale Government action has to go through the supply chain? That is a summary.

***Geraldine Bolton:*** Yes.

**Chair:** That is very helpful. Thank you.

Q151 **Torcuil Crichton:** Thank you all for coming in. One of the most striking things to come out of this session, Geraldine, is that the high-energy end of the transition to net zero is not at the table. Andrew, you were in Government. Does it surprise you that they are not in?

***Andrew Sissons:*** No, not enormously.

Q152 **Torcuil Crichton:** What is wrong?

***Andrew Sissons:*** If you are sat in Government with a challenge such as this, reaching big businesses is easy. They have lobbyists. They have people. Reaching trade associations such as Geraldine's is doable, but the majority of businesses are not in a trade association such as hers.

I want to share a stat. In 2024, large businesses were paying about half the price of small users for their electricity, so the distinction between very big and very small users is enormous. The point on trade associations is great, and there should be more use of them, but there are also a lot of businesses that are not captured through that route and are paying a lot for energy. If you are sat in Government, it is very hard to reach them.

There are two things that the Government should be trying to do alongside better use of supply chain and trade associations. One of them is just having some local advisory capacity on energy and heat. That is something we call for on the consumer side. On the trusted intermediary point that came up in the previous panel, there are no people in local government to do that. If you are not going to your trade association—and you could try Ofgem, but it is a big national organisation—there is no one to talk to. Having some people in local areas on the ground could help businesses. It could help consumers to demystify and to understand.

One of the reasons why a lot of businesses face very high costs is that they sign contracts when energy prices are really high that run on for years. Getting advice on how to manage is not possible for a smaller business. One of the things we call for is local energy and heat bodies, properly funded by Government, not on the basis of best endeavours by local government, which has other, more pressing priorities. We call for that, and that could make a big difference, but it also complements the trade association approach.

Q153 **Torcuil Crichton:** There is a big gap in trust here among consumers and industry in transmitters, generators and Government. You have given one example of how that could be filled by local government. Are there other things that could be done?

***Andrew Sissons:*** Trust in the energy industry is really bad. Also, the understanding of the energy system, particularly among consumers, is not good. Most people do not realise that electricity and gas cost a different amount. The idea that they are vastly different is not something that most people understand. Trying to help people understand that there is a wholesale generation part of the market, a transmission and distribution part, and the suppliers, is really hard. People blame their electricity suppliers for high prices, when most of the profits are going to other companies, particularly to generators. There is a real difficulty in conveying to people that it is a complex system. People cannot see any of that, and being able to demystify where prices are coming from would help a lot.

How you reach people, though, is really hard, because most people are very busy, energy is quite boring to the average person, and people do not have time to work through this. Your answer has to be about giving people very simple, need-to-know information for the most part, rather than bombarding them with stuff.

Q154 **Torcuil Crichton:** You were very lucid about the up-front costs of this investment, but are the Government being up-front about that? All we hear is, "This investment will reduce your bills," but it is actually going to increase their bills.

***Andrew Sissons:*** The Government are right that it will reduce bills in the long term. It is a difficult sell. The Government could be slightly more honest that there are some costs, and that those costs accrue a bit more now. Most of the costs of net zero are from decisions that were made 10 or 15 years ago. There is not enough willingness to say, "Yes, that was expensive, but it was necessary, because it has helped us take a lead in tackling climate change." The problem is that the benefits are still promised and have not arrived. It is very hard to talk about benefits that still have not arrived and whose duration is uncertain.

At the same time, one of the quirks of the rise in gas prices is that a lot of people have made a lot of profit in the system, including renewables generators, because, if you raise the price of electricity, a lot of renewables companies make a lot more money. That bit has not been acknowledged. There is a lot of anger about profit, but we are possibly looking to the wrong people on that. There is not a great understanding at any level of who is profiting from the energy crisis. Some more honesty about that, and not just making it a binary net zero versus not net zero, would help.

Q155 **Torcuil Crichton:** That is interesting for communities and consumers. They see the glossy brochures, the consultations and the focus groups from big companies, but they think, "You are doing it because you are going to make a big profit." Is there another way of communicating this transition to people, or a way that it will be trusted?

***Professor Fitton:*** It has to be sold with the deeper benefits in mind. This whole idea of a warm, healthy home has to be the sell rather than an air-source heat pump. Let us not get it wrong. Air-source heat pumps are good and do their things, but it should be part of the renovation of a house. That is what we used to call it—renovating houses. "Retrofit" can switch people off: "I don't want to retrofit my house. I want a new kitchen, a new bathroom and a new fitted bedroom. That is what I want."

**Wera Hobhouse:** Upgrades.

***Professor Fitton:*** Yes, exactly. We used to call them upgrades. It speaks to Euan's point earlier, and this is where the RICS involvement would come in, about this whole idea that a million houses are sold every year. The RICS inputs on about 10% or 15% of those through surveys. They go and say what is wrong or what is right with the house.

RICS is working really hard, and harder than it ever has, to make sure that surveyors are out there, telling people, "You can have this, you can have this, and you can have this," and it is all about them programming it in. "Do not put a bathroom suite in if you are going to put internal wall insulation in. Make sure you do the loft while the building is empty. While the carpets are up, do the floor." This is the time when we can get the buildings right and sell the benefits. It is cheaper to do it when the building is empty, and we will get the job done in a much better way. That, linked with things such as green mortgages, is a really big thing for the able-to-pays.

Q156 **Torcuil Crichton:** That is exactly where I was going next. You talked about changing the performance rating of houses to being a carbon rating, and it rang a distant bell from evidence that we had some months ago about green mortgages, so that mortgages are more easily accessible if you had upgraded your house.

***Professor Fitton:*** Yes, absolutely. They are not the default thing that people look for. They are looking for the lowest interest rate and the lowest payback. Giving good advice to people at the right time is the key. It is about making sure that we do not rush into a house with a removals van, but that we give it two weeks, do the air-source heat pump, do the loft and do the floor. That is a much more cost-effective way to do it, and you will get a better-quality retrofit, because retrofit is all about joining up the box.

Q157 **Torcuil Crichton:** You mentioned earlier a scheme in Scotland.

***Professor Fitton:*** Yes, HEETSA.

**Torcuil Crichton:** There is also a national expert advice scheme in Scotland. Could we benefit from that in England?

***Professor Fitton:*** We have talked for a few months in the circles that I am in about the Government having one single agency. Maybe Andrew can talk a bit more about this. It would be a single point of contact, where we can get independent advice around retrofit, financing retrofit—let us be blunt about it—and getting it working right, as well as help after it has been done. This is sometimes the missing piece of the puzzle. We usually call it the missing quarter. A quarter of the performance is missing because someone cannot use their heat pump, and that is a big problem.

***Andrew Sissons:*** I would agree with that. An agency with really specialist skills that can give confidence to people would have a few things that it needs to address. First, it needs to give consistent and trustworthy national advice that can be used by local groups as well, so it can be franchised out.

Secondly, it really needs to fix the consumer protection side. I am sure that the Committee has heard about that. We need something to make sure that people can trust this and, as Richard said, make right what is wrong, which is, sadly, all too common in retrofits.

Thirdly, it needs to do some of the planning for heat that I talked about. It needs to help you work out what is going to change where in neighbourhoods and industries. The RESPs—regional energy strategic plans—will look from quite a high level. There needs to be something very ground level. If you are particularly dealing with heating, it is really street by street, really granular, and you need some expertise, data tools and so on that can help people work out what is likely to go where, such that you can make plans and target neighbourhoods.

I would say that the agency is great, but it will be much less effective without some local boots on the ground. There needs to be a local and a national dimension here, because a lot of the energy transition is a neighbourhood thing. If you do not go to the neighbourhood scale and meet people where they are, you will not provide the right advice, people will not trust you as much, and it will not mean anything. It will seem very remote.

We definitely agree with the agency, but there has to be some local capacity that people can trust, funded by the state and not private companies, and that can go and help people with the transition. That applies to businesses as well as to homes.

Q158 **Torcuil Crichton:** You have defined it perfectly. What would you call the agency?

***Andrew Sissons:*** "Warm Homes" is the language that would fit with where the Government are going. As for the local bodies, it is not clear, but something with the local name in it.

Q159 **Chair:** As you are finishing talking about this agency, do we have an existing model that we can base it on? Is there good practice somewhere so that we can say, "It is working there. Let's lift and adjust it for what we need"?

***Andrew Sissons:*** It is a good question. We have thought about this quite a lot. I am not aware of any perfect analogues. There are some examples in the NHS of trying to spread innovations around. I am not saying that it has worked perfectly. I will probably get into trouble for saying this, but it could be like the Government Digital Service. It is a slightly different thing, but something that tries to take a set of expertise and help to deliver it through local areas. GDS is not a perfect analogue.

Q160 **Chair:** You might have found something even less popular than energy companies.

***Andrew Sissons:*** It is not a perfect analogue, but it is that idea of, rather than focusing on paperwork, delivery and running a huge scheme, and the dreaded competition for local areas, you need something that can partner with it. In fact, I should have said there is already a really good body in DESNZ called the heat networks delivery unit, which does this for heat networks. It partners with local areas rather than telling them what to do. It provides resource. It has standard contracts for procurement.

Q161 **Chair:** Yes, but you are talking about a consumer advice service, presumably.

***Andrew Sissons:*** Yes, but not just a consumer advice service. It is something that can help.

**Chair:** It has to be much wider and much bigger.

***Andrew Sissons:*** The concept is similar. The GDS bit is to build some tools and some things that people can copy, and to make them open source. Do not spend millions of pounds on consultants doing the same model again and again. Have something that each area can use. These are guidance tools.

Q162 **Chair:** Are you looking at a physical as well as an online presence?

***Andrew Sissons:*** The physical bit would be local, in my opinion. You need boots on the ground in the local area, but they can tap into an app or something. If you go round to someone's home, you want to be able to say to them, "We can get a pretty good idea of your home. Here is an idea of the technologies that might work. Here are what your costs might be." This would be something that you can trust, rather than a dodgy quote from some company that you do not know the name of. "Here are the key things that you need to know." They can tap into that from a shared system. That is the type of thing.

Q163 **Chair:** It sounds great. It also sounds quite big and quite expensive, if I am honest.

***Andrew Sissons:*** We have had a go at Nesta—we are a relatively small organisation—at building something open source that can start to do this. It is more expensive to not do it and to leave it to the market than it is to have a go.

***Professor Fitton:*** An energy Sure Start centre.

Q164 **Claire Young:** This question has partly been answered by talking about local boots on the ground. We already have regional agencies such as, in my area, Severn Wye. Would you build on what they have done or replace them?

***Andrew Sissons:*** I would 100% build on what is already there. There are some brilliant initiatives, some by local government, and some by community groups and charities. Put the governance at a local level and provide some funding, but let each area decide how to deliver. I would be saying to Severn Wye, or somewhere like that, "Do that through what you already have." Without any funding and role to do this, it is always going to be best endeavours. Some areas will be brilliant, because there are committed people who fill out the funding application forms and succeed, and there will be some areas where people are not that serious.

Q165 **Chair:** Would you run it through local authorities, or would you run it independently?

***Andrew Sissons:*** I would run it through combined or strategic authorities for the governance—the new strategic authorities that are going to be created as part of the devolution White Paper—because they can then pass things down to local areas and work things through, because they are just a bit above the day-to-day of local government.

Q166 **Chair:** That is helpful. You were talking about the vast profits being made by the generators, including the renewables, which is the slightly uncomfortable truth that we have to face. Should a bigger contribution be made by them to the changes that are happening in the transition?

***Andrew Sissons:*** First and foremost, we should break the link with gas. The reason for those profits is that gas raises the price of electricity.

**Chair:** Yes, you have told us that many times.

***Andrew Sissons:*** You have to be very cautious. The previous Government had a proposal on that. The risk is that you undermine the case for investment, and that is the reason why everyone has been very nervous about it. It is better to get people on to contracts for difference and make them stick to it, such that you have a nice predictable fixed price. Getting people on to a committed price rather than letting them play the market is the ideal thing. I would be very nervous about taxes, but it is something that should be discussed.

Q167 **Chair:** So a possibility of additional levies, but not on oil and gas in this case?

***Andrew Sissons:*** Yes. It is the generators. It is something that should certainly be looked at. I would just urge caution about the investment case.

Q168 **Chair:** Yes, the impact on investment. That is a good point. I wanted to come back to you, Richard Fitton, and what you were saying about using the point of sale to upgrade. You mentioned having a two-week space. I could see how people might think that is just unworkable when your removal van is sitting outside the house that you are moving into, and someone in the chain is sitting outside the house you have just left. How will this work in practice?

***Professor Fitton:*** It is clearly the biggest and most stressful purchase you will ever make. Let us not talk about the buying and selling of houses in the UK, because we do not have the time. The idea is that a reasonable amount of time is given to look at, design and install retrofit at the point of sale. Let us not forget that, when we do a survey of a home, we are doing that well in advance of the day when everything happens and everyone is crowded around with keys and stuff. That could have been done a few months before. There is a chance for people to go and get quotes, designs, and some ideas for what they might want to do to that house, in this time when we are waiting for the conveyancing process to go through. You could condense it.

To me, it is more about planning it. It is about getting the finance, which we could be on with while we are doing that, or we certainly could be investigating it. It is about planning and designing a retrofit, and all the other things that we want to happen in that house.

Maybe I am being idealistic about it happening in these two weeks, but the point is that, before we move in and get everything done, and before we start redecorating and things like that, we could be making some movements towards retrofit. We also talk a lot about stamp duty relief for retrofit. If you have put forward a good plan with a good design, and your intentions are to do that retrofit, should we arguably not be getting some kind of benefit from that?

Q169 **Chair:** So using a very strong financial incentive rather than making it mandatory?

***Professor Fitton:*** Yes, absolutely. Carrot rather than stick, yes, 100%.

**Chair:** That is very helpful. Thank you very much. That brings us to the end of our session. Can I thank both panels again for two very interesting sessions with lots of great ideas to add to our inquiry?