

Environment Committee

1 December 2010

Transcript of Item 5: Investigation into Lights Left on in London Workplaces

Murad Qureshi (Deputy Chair): Today's evidence session will be the first on lights left on in London workplaces. This subject has been suggested to us on several occasions by the general public and this is our attempt to draw evidence on the issue, and see what we can make of it, in the London context.

It may be useful if we allow our guests to introduce themselves.

Howard Dawber (Canary Wharf Group): My name is Howard Dawber, I am the Strategic Adviser at Canary Wharf Group. I have two colleagues with me today who are my technical experts. One of them is a technical expert on maintenance of the buildings and the other a technical expert on construction.

Larissa Lockwood (The Carbon Trust): I am Larissa Lockwood from the Carbon Trust and I am our public sector manager for the local and central government estates, so running carbon management programmes in those sectors.

Pete Daw (Policy and Programme Manager, Climate Change Mitigation): I am Pete Daw. I head up the air quality and energy teams here at the Greater London Authority (GLA).

Martin Powell (Interim Mayoral Adviser on the Environment): I am Martin Powell, the Interim Mayoral Environment Adviser.

Murad Qureshi (Deputy Chair): Thank you all very much for getting here on time. We are expecting one other guest: Victoria [Howse], from Islington, but I will start the questioning now, if you do not mind.

The first question is really aimed at the far end of our Panel and then we will work our way along. Could it be possible to outline the reasons why workplaces see the need to be lit up after normal working hours? Howard, I am sure you have got a perspective on this from Canary Wharf's point of view.

Howard Dawber (Canary Wharf Group): First of all you have to define what normal working hours are. I have brought a photo today; this is a typical photo of Canary Wharf that appears in the *Evening Standard* or *Daily Mail* when they say, "Isn't it outrageous that all the lights are on?" That is taken at 4.30pm in winter when, obviously, nearly everybody is still at work. If you took a photo at 7.30pm these days you would get a similar picture, you would get a lot of lights on; that is because of the nature of the work.

A lot of the offices at Canary Wharf will start at 7am and work through until 8pm or 9pm. In the banks, for example, you have got people who are trading overseas so they will be watching stock markets that are still open or preparing for stock markets that open earlier than London around the world. We have a newspaper company, Trinity Mirror, based at Canary Wharf so they are in overnight; their working day lasts much later into the evening; they tend to be putting the first paper to bed at 10pm or 11pm and then working through until the final edition, which is maybe at 2am.

The other thing that happens is that after the normal day when staff have gone home, about 8pm or 9pm, in a lot of cases that is when the cleaners and the maintenance people come in. We have a few hours where there is quite a lot of work on some floors where the maintenance people are repairing things that they cannot do during the day. You cannot, for example, dismantle a computer installation, take it out and bring a new one in during the working day in the middle of a trading floor of a bank; you have to do that at night. As it gets into the early hours of the morning you will see a lot of lights will go off on floors.

One way in which we get singled out is that, if you look at a floor of Canary Wharf, you are looking at maybe 20 windows on a floor, but it may only be one light. Because it is an open plan floor there may be really low lighting on the floor, almost the emergency lighting, to allow the cleaners to get around and the security guards to patrol; but because it is one light shining through 20 windows it looks like there are 20 lights on. We are doing what we can to ameliorate that, and I will come on a little bit later to some of the things that we are doing to try to reduce the amount of light that you can see from outside the building; also the lights in internal stairways and so on.

The other thing is there has been a change: maybe 20 years ago there would be businesses who would say, "Let's leave the lights on to make it look like we're busy. We want to have the logo on the building lit up. We want to have lights shining out. We want people to see how busy the company is." In the last few years, partly because of pressure from the Greater London Authority and others, the whole attitude has changed. Businesses are now very cost conscious, as well as environmentally conscious, and any way in which they can reduce the energy use on that floor or reduce the amount of lighting that is needed, they will find a way. Tenants are now coming to us as and saying, "We want to find ways that we can reduce our energy." So things have got a lot better.

Murad Qureshi (Deputy Chair): Howard, we are coming to the landlord tenant relationship and that is a key element of the session and the ground we want to cover. Coming back to your explanation of what are normal working hours or not so normal which explains possibly the reasons for keeping the lights on during working days, but what about the weekend? Last time I went through Canary Wharf there seemed to be several blocks of offices - forget the retail - where the lights were still on. What, logically, can the explanation be there?

Howard Dawber (Canary Wharf Group): There are certainly people working at weekends; if you go to Clifford Chance lawyers, for example, they have quite a lot of people in over the weekends working on deals; it is a 24 hour a day 7 days a week business there. Again, the newspapers will work through; it is the Mirror Group so they are doing the *Mirror* on Sunday and they are doing the *Sunday People* and the *Sunday Mirror* on Saturday, preparing for those publications.

The one thing that we are going through at the moment is that, in 1 Canada Square particularly which is the main Canary Wharf tower, we have had KPMG [Audit, tax and advisory organisation] and a few other people moving in to their own buildings. We are in the process of refurbishing floors at the moment; that work happens on a seven day a week basis. When floors are being fitted out, then lights would be on because people are working there.

In terms of the other offices, it is down to the individual tenants as to whether those lights are on or not. They should not be because, where possible, we are working with them to install systems that will automatically switch off the lights when there is nobody on the floor. They are not all there yet but that is a process that we are going through.

Murad Qureshi (Deputy Chair): Can we hear the views of the various local authorities? Welcome, Victoria.

Victoria Howse (London Borough of Islington): My experience, working at Islington Council, is partly on the council side of things, but I also have quite a lot of work with businesses through our climate change partnership. On the council side of things, in terms of why lights might be left on when they should not be, it is a mixture of light and control systems maybe not being as sophisticated as they could be. I was talking to a member of staff who deals with this issue around whose responsibility it is. In some buildings it is the security teams' responsibility to switch off the lights and in some buildings it is the cleaners. Whose responsibility is it to turn off lights at the end of the day is certainly an issue. Those are the two main ones that we have. It's important to make sure that there is that authority coming down, saying, "This is something that is important and it needs to be done."

On the business side of things we work with a whole range of businesses, some of which are big businesses who maybe do work over weekends and evenings. The landlord and tenant issue seems to be a really big one that you come up against, working with businesses; whose responsibility is it? Who pays for all the lighting? Whose responsibility and who is going to pay for upgrading lighting systems? Again, where you have got buildings where you have got multiple tenants in a building then, often, the tenants will just leave and think it is somebody else's responsibility. There are a whole range of issues.

Nicky Gavron (AM): What do you mean by not very sophisticated lighting controls?

Victoria Howse (London Borough of Islington): I am not a technical person when it comes to lighting, I have to admit but for example, on our floor in Islington, we have a system where it is banked lighting and we can turn off certain sections. It is also controlled so that when everybody has left the room, after a certain period of time, the lights go off, that is about as sophisticated as lighting systems can get. It does work well; if no one is on the floor then the lights will switch off.

Nicky Gavron (AM): Does that mean though that they are on all the time people are there?

Victoria Howse (London Borough of Islington): You can choose to turn them off in certain areas. If everyone is in but everyone is only sitting in one area of the room, then we can choose to turn off the other banks of lights, which you do not always have in office spaces.

Nicky Gavron (AM): It is more sophisticated than the GLA.

Victoria Howse (London Borough of Islington): Some people would argue that giving the staff or tenants that level of responsibility is not the right way, and taking all the responsibility away and keeping it purely to sensors is the right way of doing it; I have heard both arguments. We, personally, feel that it is nice to have some level of control as staff because then we can see if no one is using that whole section and we can make sure it is turned off completely.

Nicky Gavron (AM): It would be interesting to ask the Panel what is the really sophisticated state of the art lighting control? Everyone says sensors are great but the irony is, if nobody is there, they are off but when everyone is there everything is on and you cannot turn it off. That is what happens in much of this building.

Howard Dawber (Canary Wharf Group): We are looking at installing some new equipment. We, for example, recently did an exercise where we looked at the stairwells. We realised that the lights in the stairwells - which in our case are 50 storey levels, so that is a lot of lighting - are on full almost all the time for emergency reasons. We have now installed a system in one of the stairwells on One Canada Square where the lights drop to 10% of their normal power, which is just about what you would want if everything failed. When they sense somebody coming into the stairs the lights around them come on, so there is light towards the direction they are moving and there is light where they are, but then it quite quickly goes off as they go down the stairs. It follows people around so it is thinking ahead as to how people are going to move through the space; that has had a really big impact on reducing the power use on that stairwell.

It is really a question of, once you have installed the sensors and installed things like a system that automatically turns the lights off at 9pm - unless there are people on the floor - it is about tweaking it to make sure it does work with how people use the space. There is no magic box that you can put in that will fix it; it has to be managed by people as well, the human interface with the system is crucial.

Mike Tuffrey (AM): While I understand there are some operations that are 24 hours, or near, like a newspaper, the other ones like your lawyer, that is not the entire team in on a Saturday or Sunday, it is one person. That is the danger of resorting to systems that turns the whole floor on when there is just one person sitting in at a desk. Perhaps we can get a view from you, Edward, as a tenant in terms of the tenant landlord. Whose responsibility is it? Whose responsibility is it to change the lighting systems so that you have a combination of smaller units automatically and some manual overrides? Give us your take?

Edward Murphy (Accenture): Yes. One of the questions that I was posed when I was asked to come in was the reasons for lights being left on in the workplace outside normal working hours? I have done a brainstorming of that and applied the last 25 years working as a tenant in buildings in London to all the problems associated with leaving lights on in London.

To the question that was just previously asked about systems, I think the most sophisticated system - again, there are problems with sophistication because they need someone to manage them and in my experience of running buildings is it is very worrying when you get to a very sophisticated system - would be a computerised lighting control system; a plug and play system; they are probably one of the best programmed with local override. I believe that would give both central control and a local control so you can programme the system during core hours to stay on as well as outside core hours, whatever those core hours may be for the business, it is in automatic mode, which means that it will go off in zonal areas outside normal working hours.

I have done a real brainstorming session here over the last day or so to come up with reasons why lights are left on. I do not know if you want to approach it that way or not?

Mike Tuffrey (AM): That would be useful.

Edward Murphy (Accenture): Lack of switching control. Building stock in London is such that anything over 15 years old may not have a lighting control system unless it has been retrofitted. Usually the approach 15/20 years ago was to put in large banks of switches and that, in itself, is a problem because it does not give local control 'zonally'. It is centrally controlled, maybe by the security guys or out in the lift lobby. That is a big problem and that is currently present in a lot of the building stock we have got in London. The security guys or the cleaning staff tend not know where the switches are. Security staff,

cleaning staff struggle with manual switches that are poorly laid out switching - the position of the light switching - and remote switching, meaning the switches are nowhere near where the lights need to be switched off. That is a problem in a lot of building stock.

Buildings that are available for staff 24 hours a day is also a factor. A lot of companies work on the basis that staff can come in whenever they wish and, because of that, lights are left on on Saturdays and Sundays with no specific instruction to switch them off; equally on late evenings, one person remaining in the building equals all lights left on.

Another reason - again this is just brainstorming and is in no particular order - I am not responsible for paying the bill; that is due to a lease arrangement issue. The energy bill could be paid by the landlord as part of the leasing arrangement; it is a pass through cost. It is usually paid for on an occupied square foot basis; if you have got six tenants in a building and one tenant occupies 32% of the building they will get 32% of the electric bill, so there is no incentive for that particular individual to save energy because he is only going to get a fifth of the saving, because it is going to be spread through the rest of them. That is a problem with lease arrangements today; generally poor building management and lack of accountability; I find that all the time. There is just no one accountable for it at all - that is the landlord, agent and occupier; those are the three groups of people. It is ignorance of the high cost of lighting.

There is nobody in charge except for the cleaner, who puts the lights out when he or she leaves the building late at night; maybe they do that.

Regarding evening and night cleaning and how that night cleaning is planned, what you will get in lots of buildings is one cleaner on each floor, running through the building maybe for four or five hours, rather than using a team approach. The cleaning team should be organised in a way so that it cleans the building switching on and off lights as it works through the building or perhaps consider day cleaning; that is another thing that lots of companies need to do. Are these night cleaners instructed to turn the lights off? Security staff, poorly briefed guards, guards that are continually changing and cleaners that are continually changing as well, are not following instructions and even have no knowledge of where to switch lights off again. Guards and cleaners are the last people in the building; they always seem to be disconnected from instructions, particularly when it comes to lights.

I find this because I have carried out lots of evening and night surveys in buildings that we occupy. Asking the guards about what they are supposed to do leaves a lot to be desired. Security rounds - that is another thing - on automatic systems. Security guards usually do rounds every two to four hours. Every time they do it, they walk round the building turning all the lights on, automatically; they just come on. The guards do their rounds, all the lights come on and 30 minutes later the lights go off again, then, in an hour and a half's time, they are on their rounds again, turning all the lights on; that happens a lot.

The other thing is really about metering and, particularly, smart metering. I believe that there is not a lot of it out there. Occupiers and managers have no visibility to good quality integral data via smart metering. It is important for building managers to see the energy profiles of buildings when they are not there; that is really, really important.

I move on to lighting systems: my first point is about the lack of understanding of lighting systems by building managers and maintenance staff; they are too sophisticated for them. The fact that maintenance staff change quite a lot means that the knowledge base is lost, and a lot of people really do not understand what to do or how they work.

Mike Tuffrey (AM): That is very helpful. It seems to me there are some structural issues about landlords and tenants and there are some behavioural issues which the Chair will pick up on in a minute. Can I pick up on the technology? New buildings can have state of the art fitting - but the retrofitting point - maybe we can bring the Carbon Trust in at this point. What is your take on the issue, particularly around the case for retrofitting more sophisticated control systems?

Larissa Lockwood (The Carbon Trust): There are new technologies coming to the market all the time. There is a new product which can be retrofitted quite easily. It is not a movement sensor because, quite often, people will override them; you sit at your desk and the lights go off because you are not moving. I believe there are microwave sensors that sense body heat now and those are preferable. There is one technology which works on a computer basis so, if someone is using their mouse or their keypad, it is all joined up centrally. It is a little box that you retrofit; I think it is pretty cheap. You put it on each monitor and then it can tell what each individual in that floor is doing, so if there is only one person using one mouse at midnight there is just one person burning the midnight oil, then it turns everything else off around, apart from the lighting in that area, the heating in that area and the nearest kettle. Everything else that people are not using - because it has not picked up on anything - will go off. There are these sorts of new technologies, which can be retrofitted cost effectively, coming to the market.

Mike Tuffrey (AM): What about real time monitoring? The Department for Environment, Food and Rural Affairs (Defra), on the home page of its website, now has, every minute or so, a take on the energy consumption of the building, and that means you can see 24 hour trends; that is real accountability. It does not turn the lights off obviously, but it does show if it is midnight and you are still consuming the same energy as you were at midday. That is crystal clear to the media, Assembly Members and everybody else; is that something you have seen?

Larissa Lockwood (The Carbon Trust): Yes. It has been done very successfully by central Government. It was part of the Prime Minister's 10% commitment to central government to cut their emissions. Every one of the 18 headquarter departments had to put in real time display technologies and publish it on their website within two months; they all did it within the timeframe.

Mike Tuffrey (AM): We might look at that for here as well.

Larissa Lockwood (The Carbon Trust): It can be done.

Mike Tuffrey (AM): Others may want to come in on the retrofitting technology before we come on to behaviour change, but is there a perspective from the GLA on what needs doing?

Martin Powell (Interim Mayoral Adviser on the Environment): Yes. We are covering lots of topics and it is very interesting. It is great to talk about this topic, so I am very pleased that we put a focus on it, principally because workplaces are 43% of the problem and lighting is a fifth of that, so it is really substantial. That said, we need to solve the problem in the context of all the other problems within buildings; just solving the lighting problem and tackling it that way is difficult. If we combine it with other measures - whole building retrofits - we are going to be a lot more successful.

That said, the issues are lack of accountability and, probably, the right accountability. I do not think it is the cleaning staff's focus, nor the security staff, and probably nor should it be. Having, therefore, the

right controls in place will help because you take that responsibility away from those who should not be taking it.

I do agree with poor measurement: real time monitoring is fine but we do not know enough about where we are wasting our energy. I do not know if you have heard of our successful bid from the Office of the Gas and Electricity Markets (Ofgem)? It is going to award London £25 million to do a smart meter roll out, and do some testing of the energy supply grid in London. Part of that will be installing smart meters across our low carbon zones. This, for the first time, is going to give us some real information about exactly what kind of data we will get back and where we are wasting energy, which will help us solve the control problem. I am interested to hear from Canary Wharf again about how you can employ that kind of knowledge and alter your maintenance cleaning regimes and your building works regimes etc; you could have substantial reductions if you did that.

The other thing where there is a bit of an information failure, is around the whole life cost thing: people look at low energy lighting and they think it is quite expensive. They do not realise that the maintenance costs over the life of this product come down substantially. It is something the London Lighting Engineers Group is looking at, generally in terms of, if you install low energy lighting and you look at the whole business case, you can easily ignore the upfront capital cost quite quickly. Maybe we all have a bit of responsibility of trying to present that information in a better way, or work with manufacturers to do it.

My final comment was around real time monitoring: we are about to - I look at Pete at this point who may want to add something - put some real time monitoring in this building; the more we do the better; you put it in any building and it is then scalable. If we have one very good building where we have got lots of decent measurement equipment we can then draw lessons from that and try to replicate that across the workplace sector. Obviously, the Better Buildings Partnership, the RE:FIT programme and the Green 500 are all great mechanisms for which we can help push this message through; that is what I wanted to add.

Pete Daw (Policy and Programme Manager, Climate Change Mitigation): To add to Martin's point, one of the reasons for lights being on in the building over the summer was due to the installation of smart meters, ironically! That is now complete. The next stage of that, as Martin says, is to put the relevant information on to the website so that it will be real time; we hope to get that up in the next four to six weeks.

In terms of the smart meters, I sat down with our buildings manager last week; he is very excited, as you can imagine, by this new piece of equipment. He was showing me some of the things that it can do floor by floor and parts of floor against other parts of floor. He is able to analyse where electricity use and energy use is particularly high, he is already starting to identify some quite interesting trends: some weird peaks which do not make sense which is starting to generate some interesting work for Rennie [Kraus] [Infrastructure Manager, GLA]. As I say, that coupled with displaying information and being able to share that with staff, will be particularly important.

I wanted to add in a couple more challenges raised by colleagues at the Better Buildings Partnership. They have just mentioned void spaces in buildings and new developments: if a floor is available, often the decision will be made to keep it lit up all night so people are aware that it is available for rent. They have also mentioned that the cost of energy as a portion of rental costs in London is actually quite low compared to other parts of the country, which is a challenge. The final one is that 99% of London's businesses are small and medium sized enterprises (SMEs), so that is 800,000 individual people we need to tackle, so that in itself is a challenge too.

Victoria Howse (London Borough of Islington): I remembered something that we have just started doing in Islington and I wanted to mention it because it might be applicable for other organisations that have workers across more than one floor. We have four floors, and after 8pm anybody working in the building now has to go down to the ground floor, so the rest of the building can be turned off and people just work on the ground floor. That works for us because we hot desk, so we can do that, but I imagine that other organisations could do that. Again, it is a way of not having to do all of the high tech stuff; it is a behavioural change thing and it is reasonably easy to do.

Murad Qureshi (Deputy Chair): Practices can change as well. I am going to hand the chairmanship to Darren [Johnson].

Darren Johnson (Chair): Huge apologies for lateness but welcome to everyone who did make it on time.

Nicky Gavron (AM): While we have Pete [Daw] and Martin [Powell] here - it is not your responsibility but I have been constantly intrigued - we are the victim of our own sophisticated controls; why is the lighting on when the sun is shining in most of the work spaces? I am not talking about these rooms where you can control it, but in most of the open plan work spaces, the lights are on day in day out but not at night; they turn off at night because people are not around.

Martin Powell (Interim Mayoral Adviser on the Environment): If the natural light is not sufficient for people to be able to read and do their work then I am assuming the controls go on, but I do not actually know the answer to that question. I am assuming it is in order to maintain a certain level of lighting; it is a really valid point. If there is enough natural sunlight we should be finding ways of funnelling that through.

The Centre for Efficient and Renewable Energy in Buildings just up from Elephant and Castle has just opened its building using all sorts of new technologies - if you have not been you should have a wander down there. It has got all sorts of new technologies, it has got ways of funnelling natural light into natural spaces in buildings, it is also looking at all sorts of different technologies, so it is worth having a look at.

Pete Daw (Policy and Programme Manager, Climate Change Mitigation): I will come back on that point if I may; I will have a chat with Rennie [Kraus] and let you know.

Darren Johnson (Chair): We have got a question for the Carbon Trust and it might link as well to Martin's point about the SMEs because we are not, necessarily, looking always at big sophisticated systems in large buildings. What can be done to encourage staff to make better use of manual switches for the lighting?

Larissa Lockwood (The Carbon Trust): I have to say I do not work in the area of SMEs but getting staff to use manual switching, a really basic point is labelling the switches. Quite often there will be a big display board of switches and people do not know which one operates what. We had a discussion earlier about the responsibility for turning off the lights; people do not, necessarily, always feel it is their responsibility to do so which, again, is disempowering.

Darren Johnson (Chair): That is about basic training; do you provide any information for companies? Perhaps a simple briefing on that issue?

Larissa Lockwood (The Carbon Trust): Absolutely, we have a number of guides on our website, quite interactive guides. We have one which will help organisations work out cost effectiveness of different lighting options; we have video demonstrations on different lighting options. There are a huge amount of different types of bulbs that you might want to use in different situations; not just different technologies but also, how do you use the lights as well.

Darren Johnson (Chair): We have heard, briefly, about some of the more sophisticated lighting technology that is starting to be introduced but, again, that still requires basic training and awareness, about how to make the most of those technologies. Can you say a bit about your work in that area?

Larissa Lockwood (The Carbon Trust): Yes it does; we can provide surveys and basic advice on lighting, amongst other energy efficient measures, to SMEs. One day surveys are very popular, as well as loans for equipment. Obviously, when we are going through that process, there is a degree of training within that as well.

Darren Johnson (Chair): In the context of some of the larger buildings, do any other guests want to add to that?

Edward Murphy (Accenture): What companies really need to do is run awareness campaigns within their own company; how they run it will be different for different cultures. If you do not continually do that, and measure your energy you will fall back into an old way of working that will just happen naturally. If companies do not continually run awareness campaigns on lighting and it is not measured and monitored, it will just fall back into its old ways after months and months. That will continue to happen if you do not continue to beat at it all the time.

Howard Dawber (Canary Wharf Group): I would agree with that. There are two things I would say building on some of the comments that have been made earlier: one is we are very fortunate in Canary Wharf in that we build the space and then we generally maintain it so we are responsible for the maintenance, and quite often for the management as well, so we have a very long term engagement; that also means that an individual will know an enormous amount about a particular building. One of the things that we have that has been lost in other places is the caretaker, the building manager, who knows what all the buttons on the light switch are for and can take responsibility for a reduction of the energy use, someone who knows the building. A building very quickly becomes very complicated an organic structure with not just the lighting, but the air conditioning units, the heating, the computer systems, printers and photocopiers. Somebody who has responsibility for reducing the energy and where that can be monitored, an actual individual who understands the systems, is very important.

Secondly, in terms of data, we started collecting data a few years ago. In our own environmental report we do have a target of reducing total energy use. A couple of years ago we started a process on weekends - particularly long weekends where there are Bank Holidays - of actively encouraging all of our staff and tenants to do things like switch off the photocopiers, switch off the printers and switch off the lighting, or set the lighting to go off for the weekend. Last year that resulted, in a 6.4% reduction in energy use across all of our managed estate, which is pretty good as a start. We are going to keep pushing on that. It is only when you - as you say - say, "We're going to do this and there's something that everybody's going to aim for" that you get people to make the effort to go round and change that behaviour.

Darren Johnson (Chair): Otherwise it does naturally slip back, as Edward was saying.

Edward Murphy (Accenture): Definitely.

Victoria Howse (London Borough of Islington): I want to make a comment on SMEs. In our experience the key issues are that, quite often they do not have a dedicated person who is looking at this issue, like larger organisations do, which means they do not always have the expertise which they need in terms of installing lighting systems. SMEs do not always understand how much energy they are using, and that is often because of the landlord tenant/managing agent issue within the service building, or because they are not reading their meters, and they are just not aware of it. We also have an issue with the really, really small ones at the moment in that they do not want to engage with it because they are literally clinging on. We are finding it hard, particularly with the really, really small retailers, to engage with people, because they have got so much else on their minds.

Mike Tuffrey (AM): Could I come in on the bigger behaviour change point? There is also a micro behaviour change, one of the reasons the Committee wanted to look at this is because of the sense, that if people get the impression that lights are going off and that this matters, it affects all sorts of other behaviour; how they behave at home and recycle other stuff and so forth. It encourages that wastefulness consciousness. Any tips in terms of getting that wider behaviour change from these smaller actions on lights? I would probably look to you, the Carbon Trust, but maybe the council as well from Islington; any perspectives on that bigger story?

Larissa Lockwood (The Carbon Trust): I think you are right; the papers do love a good story of lights being left on. We get the annual story walking down Whitehall looking at which departments have got their lights on. People do care and 'tut' that it is taxpayers' money being used inefficiently. Whether that transfers into their household and daily lives I am not sure. If they are told to turn it off at work, quite often when they go home, they will do that as well. At home people demonstrate behaviours that they do not, necessarily, replicate at work. Recycling rates are higher domestically than in the workplaces. When the systems are put in place at work, they will do it because they are used to doing it at home, it is the same with lighting I would imagine, although we do not do any work in the domestic sphere.

I have heard a story from the Ministry of Justice which is by St James's Park Station. There is a Member of Parliament who walks down there every day and if the lights are left on he calls them up. He has got the number of their estates team. What if every building in London had a mentor, so whenever you walked by you called them up and said, "You've left your lights on?" They are turning off their lights as a result and everyone is on edge for that call.

Victoria Howse (London Borough of Islington): Just briefly, we are starting a project at the moment in Islington with Global Action Plan, an environmental charity. It is working with groups of young people between 16 and 24, I think, and it will come and do night time building surveys, either outside or inside of the buildings. Then it will do a presentation and a little awareness raising campaign, normally in one day, for the staff of that building. We are having it done in the foyer of one of our main buildings in Islington. Then it will go back two weeks later and it will do a survey. I am not saying it is going to have a massive, massive impact but we think it is a really nice way of getting young people in the borough involved in this issue, also, it is something different for the staff to see when they come in, they will see somebody with a large balloon showing how much light they wasted last night - that is something we are involved with.

Mike Tuffrey (AM): We are going off topic but schools: certainly my kids have yet to understand that light switches work both ways! They think it is a one way thing; they switch it on and then how do I turn

them off? Schools, with lights left on in class rooms, and so forth - again, councils, still have a role there perhaps. Is this something for the GLA's agenda; a perspective on the wider story?

Martin Powell (Interim Mayoral Adviser on the Environment): To pick up a couple of points that were made, I have always taken the view that if we get the big businesses to sort their lighting out then the SMEs will take that lead and will follow. The point made about SMEs not having dedicated resources is absolutely true; they do not have somebody who is focused on energy management in their workplace because they are busy trying to turn a profit in their core business. If they see all the lights off in Canary Wharf suddenly, that would have an enormous impact across the city. Whether that is fair or unfair that, you are portrayed as this great waster of energy, you are stuck with it. This is a great opportunity for you to help stimulate that change.

The homes issue is a smaller piece of the pie, workplaces are the main issue. In terms of behavioural change, obviously these same people live in a house and go into a workplace so, if we can speak to the schools, which we are starting to and put a programme together through our Homes programme, and use that pester power, then, hopefully, that will manifest itself back in the workplace. The other benefit of that - and I have said this before - is school children are a cheap way of deploying resources to speak to parents who may not be fully engaged with this kind of thing.

Darren Johnson (Chair): Martin is absolutely right on the symbolic value of the iconic buildings: so often people say to me, "We're being urged to save energy in the home but then we go out and Canary Wharf is ablaze and City Hall is ablaze throughout the night."

Howard Dawber (Canary Wharf Group): We do recognise that - although, technically, One Canada Square is not the tallest building in the UK anymore, because I think the Shard has just overtaken us - we do stick up into the air so people can see us. A few years ago a thing started called Earth Hour: the idea was that you turn off lighting and equipment. We were slightly sceptical about that to start with but we sounded out tenants on the idea and they wanted to take part; we started doing that. This is my earth hour picture: if you ignore the street lighting, nearly all of the floors are off. That is quite hard work because you have got to coordinate a lot of people to turn systems off at the same time. Systems may be set to go off at 9pm, rather than 8pm. It is quite hard work to do it, but the process of doing it creates the conversations that you need, to have about how you set your systems up, who is responsible and who is going to take responsibility for making sure the lights are off. I have a sneaking suspicion that might be the London Organising Committee of the Olympic and Paralympic Games.¹ Somebody is going to tell me I am wrong there but, in the middle of Barclays, I have a sneaking suspicion that might be the only public sector tenant --

Darren Johnson (Chair): We have got them in shortly, so we can have a go at them.

Howard Dawber (Canary Wharf Group): I will write to the Committee and let you know who that was who did not turn their lights off¹. They then feel quite embarrassed that they were not taking part, because they did not get round to it or some technical thing stopped them from doing it. Those sort of things are symbolic; it does save energy and there is an energy reduction. It is symbolic but it does then create that momentum that we are trying to get going.

¹ Following the meeting, Howard Dawber wrote to the Committee to say, "After extensive research, we have determined that it was **not** in fact LOCOG - it was the trading floor of an American bank who were working with New York at that point and could not close the floor down."

Darren Johnson (Chair): For the longer term relationships.

Howard Dawber (Canary Wharf Group): Yes.

Edward Murphy (Accenture): Just to add to what Howard has just said. What he has touched on is about feedback. It is really, really important to feed back to those people who have made the effort what they have saved; that is constant feedback. If you do not give constant positive feedback to the people who are switching things off, then it is an upward task.

Nicky Gavron (AM): This is for more than just the GLA because what we want to talk about is really what is going to happen in the current climate and what we can see blooming and what we can see withering. Starting off, what do you think is the outlook for public sector promotion of workplace energy efficiency?

Martin Powell (Interim Mayoral Adviser on the Environment): It is difficult to speculate until we know what the settlement is for London. We are in discussions regarding the London Development Agency (LDA) settlement, where a lot of these programmes are being funded. Climate change mitigation and our reputation remains one of the Mayor's top priorities and he has highlighted, on numerous occasions, the importance of retrofitting across the city, and so he is working very hard to get the best deal possible; that is all I can say on that part.

I would hope that there will be the resources available to deliver these energy programmes and to continue working with businesses to drive down energy use and improve energy efficiency across the city. This has benefits, of course, for all sorts of other areas such as electric vehicle take up, and improvement in air quality. It is tied in to so many other factors, that there has to be a range of programmes still aimed at tackling this going forward.

Nicky Gavron (AM): Tell us what programmes you have now for business.

Martin Powell (Interim Mayoral Adviser on the Environment): For business we currently have the Better Buildings Partnership which we fund and act as Secretariat for. This effectively brings together London's biggest landlords, plus other big businesses. They come up with a number of innovative products and pieces of information that help.

We have the Green 500 programme, which will continue until the end of this financial year, which is supporting London's bigger businesses.

Nicky Gavron (AM): That is currently funded by the GLA is it?

Martin Powell (Interim Mayoral Adviser on the Environment): It is currently funded by the LDA.

We are in negotiations with the Carbon Trust. Negotiations are still not concluded, but we hope to have a programme with it jointly, to come up with a plan to tackle the SMEs across the city. This is an issue we have just been talking about. The key here is not to try to make them do things but to try to come up with a solution that does it for them to overcome this very problem the fact is, SMEs are not interested in engaging with anyone on this area. We need to offer them a solution so they can just go ahead and make these energy reductions; at the moment that contract is on hold, I will have to come back on that issue.

The other programme we have is RE:FIT, which is our public sector buildings programme. We have set up a framework of 12 energy performance contractors - with the likes of Honeywell and Dalkia sitting on this Panel - to retrofit public sector buildings. In the last month we have signed up another £12 million worth of buildings to go through this framework. The resources to administer that framework currently sit in the LDA. The whole purpose of this really is, for these energy performance contractors to provide a price, and a guaranteed energy reduction for that price. That is the whole beauty of the framework. We are also working on an off balance sheet framework which would increase take up and overcome the upfront capital problems.

Interestingly, we have got engagement with a lot of London boroughs who have some capital available to do this. We have also got seven other United Kingdom cities who are now putting public sector buildings through this framework and we are in discussions with the Department of Energy and Climate Change (DECC) about how this can be promoted more widely. Obviously it helps national aims for energy reduction as well.

Nicky Gavron (AM): That is very, very encouraging. This £12 million you just talked about, the £12 million worth of buildings, these are what sort of buildings and where?

Martin Powell (Interim Mayoral Adviser on the Environment): Civic buildings such as a National Health Service building. One is an NHS Trust that has signed up; I would have to come back to you. I am happy to come back to you with the detail of those currently in the pipeline.

Nicky Gavron (AM): They are not GLA buildings? They are using the framework?

Martin Powell (Interim Mayoral Adviser on the Environment): Yes.

Nicky Gavron (AM): They are bundles of buildings with different issues?

Martin Powell (Interim Mayoral Adviser on the Environment): Some are bundles; some are individual buildings. The trick is for us - and this is part of our role - to see how we can bundle the buildings together so that we can let a contract in a way so that the performance contractor can get the most benefit out of the contract. If they are buying lots of boilers, rather than just one, they are going to get a better price. We are looking at trying to orchestrate the many tenders through our role in the middle, as the broker between the building manager and the performance contractor; that is working very well at the moment.

Nicky Gavron (AM): That is good. Is it like the GLA pilot where it is 28% savings, cost and carbon dioxide (CO₂) savings, across the bundle, so some will be less and some will be more?

Martin Powell (Interim Mayoral Adviser on the Environment): Yes, exactly; it is not just the buildings we are bundling. We are not just doing the buildings that have two or three year pay backs, which, unbelievably, some do, which is incredible. That is over £1 million of capital investment, you can make a return in three years on the energy savings.

Nicky Gavron (AM): That will be simple savings?

Martin Powell (Interim Mayoral Adviser on the Environment): Simple savings, yes.

Nicky Gavron (AM): Like lighting?

Martin Powell (Interim Mayoral Adviser on the Environment): Lighting, boilers, basic building controls; you put those three together and you are pretty much there. The key is to put the longer pay back buildings through at the same block and not just do the measures that have the highest energy savings, we are doing some of the harder measures as part of that package. It still offers a good return but, obviously, you get more of this done in one visit.

The other thing you do not want to do is, as a building manager, fix all your lighting and then come back six months later to do the next thing; you would rather do it all in one hit. That is what this framework is aimed at doing. Is there anything else on RE:FIT?

Pete Daw (Policy and Programme Manager, Climate Change Mitigation): No. I was just going to say the LDA is also funding, through the European Regional Development Fund programme, a number of smaller energy efficiency programmes aimed at SMEs. There are more details of that in the Strategy. There is a range of smaller programmes that the LDA is funding through the ERDF funds from Europe.

Nicky Gavron (AM): That is not under threat presumably?

Pete Daw (Policy and Programme Manager, Climate Change Mitigation): No, it is not. There are more details of those in the Strategy: some examples are EcoVate, energy saving through ICT, smart works and environmental performance of Business Improvement Districts. As I say, there is much more detail in the Strategy, but also information that is supporting SMEs.

Martin Powell (Interim Mayoral Adviser on the Environment): One other point on RE:FIT: the other thing we are finding by doing this, having already done the GLA buildings but now having more and more buildings going through who are getting the surveys done, is it is improving the knowledge base of what these measures do and the sorts of improvements that you can get. What it has meant is we get a lot more calls now from people willing to provide equity finance and take the risk on doing this. It is now starting to create an entirely new asset class around energy efficiency products from the finance sector. There are lots of people out there who are willing to provide that financing but, actually, it is equity financing that you need. If we can keep that momentum going and, over the next 12 months, convince Treasury that an off balance sheet model would be a good idea, then the two things will come together and enable us to start retrofitting buildings at the sort of scale that we have always talked about doing.

Nicky Gavron (AM): Are you able to say what an off balance sheet model might look like?

Martin Powell (Interim Mayoral Adviser on the Environment): No. It has got to be some sort of service contract. It is all down to the finite detail around accounting practices and how you specify them. Some measures will be able to go in, some will not. We are currently working through that; we are doing a competitive dialogue process but it takes time, that is the issue.

Nicky Gavron (AM): This is a wider one but I am interested in that - given that local authorities have had their indicators cut - they are not there anymore, the indicators have gone - which would have compelled them to do anything about this - explore that first and then come back to the off balance sheet - what is there? OK, a lot of local authorities want to do the right thing and, anyway, they will save money, but there is a capital expenditure problem. What is going to encourage local authorities now? What is in place? I am looking at the Carbon Trust and local authorities?

Larissa Lockwood (The Carbon Trust): I will start: as you say, it is a challenge to a lot of authorities to keep the momentum going now that the indicator framework has gone.

Nicky Gavron (AM): Is there anything else? I know about the indicator framework. What else is there to encourage them?

Larissa Lockwood (The Carbon Trust): The Carbon Reduction Commitment (CRC) Energy Efficiency Scheme is the big driver now because that is, in effect, a tax so there is a direct cost of carbon emissions associated --

Nicky Gavron (AM): For the larger buildings only.

Larissa Lockwood (The Carbon Trust): Yes, for the larger local authorities we are expecting to see some sort of direction for the rest of the public sector from DECC; I know it is very keen. The Carbon Trust sits on the working group for the 10% target for central government, and it is looking at how to engage and encourage the wider public sector as well on what happens after May next year.

Nicky Gavron (AM): Are they coming in with something to replace the indicators?

Larissa Lockwood (The Carbon Trust): No, I do not think so.

Nicky Gavron (AM): So what will it be then?

Larissa Lockwood (The Carbon Trust): There will be some sort of metric; that is my understanding. It is being devolved down to the local level, as you will know, but encouraged to publish data and carbon performance perhaps online and in local annual reports and so on, so more locally accountable.

Nicky Gavron (AM): Are they suggesting a common methodology then for this data?

Larissa Lockwood (The Carbon Trust): We have not heard any detail yet.

Nicky Gavron (AM): So you can all publish your own data and collect it?

Larissa Lockwood (The Carbon Trust): We are waiting to see what is going to come out from DECC.

Nicky Gavron (AM): You are supposed to say what you are saving. OK. What do you think about all that?

Larissa Lockwood (The Carbon Trust): It is a shame to have lost the driver of the National Indicator 185 in respect to our work, but the financial case is increasingly stacking up through the CRC and rising fuel prices. Energy efficiency is very much part of general efficiency and, therefore, needs to remain a priority. We would hope that there will be some direction for DECC. Some suggestion as to what local authorities should be doing.

Nicky Gavron (AM): With local authorities cutting up to a third off their budgets, and it is front loaded, where do you think they are going to get the capital expenditure from to do any of the work?

Larissa Lockwood (The Carbon Trust): That is the challenge.

Nicky Gavron (AM): That is the challenge.

Larissa Lockwood (The Carbon Trust): Absolutely. The focus will primarily be on the low cost, no cost carbon reduction measures; controls, monitoring and behaviour change, which require more human input than capital. Then, hopefully, perhaps, with the savings reaped from that they can then be used to invest in all sorts of measures in the kit, it will be a challenge.

Nicky Gavron (AM): Are you still asked to do carbon budgeting? That is the local authorities?

Larissa Lockwood (The Carbon Trust): We are seeing some local authorities who have carbon budgets themselves.

Nicky Gavron (AM): But it is all voluntary?

Larissa Lockwood (The Carbon Trust): It is all voluntary.

Nicky Gavron (AM): Does Islington want to add anything to that?

Victoria Howse (London Borough of Islington): I would say that, yes, the capital is going to become more of an issue but the CRC and the money saving through energy saving will - in Islington - mean that carbon reduction will stay on the agenda and it will stay a priority. Islington signed up to the Friends of the Earth 40% reduction by 2020 and we are currently looking at how we can make that happen, bearing in mind the cuts that are happening.

Nicky Gavron (AM): Going back to the GLA, if there was an off balance sheet model, would it help some of these local authorities who want to do the right thing, but have no incentives and no capital?

Martin Powell (Interim Mayoral Adviser on the Environment): And no balance sheet to do it. Yes, it absolutely would.

The other thing is, given the scale of returns that we have demonstrated through the GLA buildings and also the pipeline we are seeing now, this is clearly something that is investable. I am not suggesting you borrow money against the Public Works Loan Board or whatever else, but there are people now willing to put the financing in and contract directly with the energy service company which can then go in and do the work. If you can create that sort of arrangement it should not be that difficult for a finance officer in a local authority to sign off. Obviously, you have to present the proposition, the financing has to be there and the framework has to enable the financing to happen.

That is what we are working on at the moment but, yes, it absolutely would be beneficial to have an off balance sheet model.

Darren Johnson (Chair): On this same theme of the impact of the current economic climate and public spending climate and so on, what is the outlook now for private sector led work on workplace energy efficiency?

Howard Dawber (Canary Wharf Group): There is clearly an incentive on companies to save money.

Darren Johnson (Chair): But potentially less help from the public sector?

Howard Dawber (Canary Wharf Group): There is the possibility of, potentially less help from the public sector, which is why some of the things that I have talked about in terms of setting examples and creating vehicles where it does not, necessarily, require public sector investment but perhaps public sector leadership, and creating the vehicles by which that can happen; the CRC is an incentive. It really is because it has just become a tax; it has just become a business cost. There is a real incentive there to try to save money where you can, those sorts of mechanisms, sadly, do concentrate the mind.

Mike Tuffrey (AM): On the CRC point - we touched on it earlier, but did not get into it - is there a landlord tenant dynamic around the CRC, because the CRC falls on the owner of the building doesn't it? I am not an expert.

Edward Murphy (Accenture): It certainly does.

Mike Tuffrey (AM): So they just pass it straight through to the tenant?

Edward Murphy (Accenture): That is up for debate.

Mike Tuffrey (AM): Have the debate for us; what should be done on that?

Edward Murphy (Accenture): It is out to consultation; my view is that we should all be responsible and pay our way. If we are using the electric as a tenant we should be working very closely with the landlord to cover that and, in fact, work with energy management programmes within the building. There is a them and an us situation at the moment; it does need to be resolved.

Murad Qureshi (Deputy Chair): We touched on it earlier and I am glad Mike has brought it back up again. Is there anything that can change in the leasehold arrangements that you have between landlord and tenants which makes a difference? We are seeing some progress, for example, in housing with the green homes bill². It does suggest a landlord can pay £6,500 on a property and it goes against the title of the property, and not necessarily costs which they do not get paid back. The tenant obviously benefits from it. Are we in a similar scenario here, not just with big business but SMEs and the whole nature of these bills?

Edward Murphy (Accenture): That is such a great question. The Better Buildings Partnership produced a Memorandum of Understanding for Green Leases, which is a great little document; that is still on trial.

Nicky Gavron (AM): I think it is on its website.

Edward Murphy (Accenture): Yes, I think it is - it has also produced a booklet which is very good. When you get lawyers involved in leases, it really becomes a big issue. Lawyers are very reticent to expose their client to any cost at all in a long term lease, most of these leases are 10 to 15 or 20 years long.

There is a great debate about how landlords and tenants need to work together; that is one of the big, big problems. The whole thread of this discussion today is really about how landlords and tenants need to

² The Energy Bill includes measures relating to energy efficiency of homes
<http://services.parliament.uk/bills/2010-11/energyhl.html>

work very closely together, not only reducing lighting, but also all sorts of stuff with energy within buildings. It is how closely they work together, some are really, really good and some are not so good.

Murad Qureshi (Deputy Chair): Let us just avoid the lawyers if we can. They are only after their fees at the end of the day. How would you go about doing that, given you think that is quite fundamental?

Edward Murphy (Accenture): It all goes back to the Landlords Act which was created a long time ago. Even the word tenant is really not a nice word; we are customers of the landlord; not tenants. That landlord tenant relationship or even agent tenant relationship is somewhat always abrasive. It is all really down to history. That is the way it has always been, it is down to the lease and how the lease is written, because the lease is always written, generally, in favour of the landlord.

Murad Qureshi (Deputy Chair): We will let the landlord speak then.

Howard Dawber (Canary Wharf Group): I do not know, Eleanor [Fenton], if you want to comment - my colleague, Eleanor Fenton, who is our representative on the Better Buildings Partnership - about the leases and those issues?

Eleanor Fenton (Canary Wharf Group): We do sit on the Better Buildings Partnership (BBP). It is not actually me, but I do know what goes on. Obviously, we have looked at green leases and the Memorandum of Understanding which are still under review at the moment, as has been said. What we are looking at, even if that does not come off, is putting in a sustainability report for each building which the landlord and the tenant will sign up to. It will show how the building is operated, the energy efficiency measures in place and, also, how the tenants can work with us to improve the energy of the building. We do do a lot of work already with the tenants. We have regular meetings with them; we have just done a big survey with retrofitted lighting on some of the floors and we have worked with the tenants to find out a before-and-after carbon measure and cost saving. Because we have had that back on the tenants' systems we can then persuade other tenants that it is the way to go forward. Even if they are not interested in the carbon saving, then there is a massive cost saving to be had. We are going on now with that direction. Where our tenants are good and where they have got good environmental policies we will go forward and push carbon saving, where, maybe, they are not so interested in that we will work with them by sharing best practice and the cost savings that can be had. There is a lot of work going on there.

Green leases have not come up for us, unfortunately. With the BBP the discussions were the same; I am trying to think of how many tenants we have got, there is a massive workload in it. The feeling is that the majority of tenants have not signed up for them. Obviously, they are legal documents - going back to the lawyer thing. Some of our tenants have very long leases. The feeling is that if we went back and said, "You need to sign up for all these things on your lease" they are not going to do it. Which is a shame, I think with BBP that is also the case. That is why the Memorandum of Understanding, which is more an informal agreement between tenant and landlords to work together, is coming about.

Howard Dawber (Canary Wharf Group): Can I make a very quick political point on that in terms of making this happen? What we have found - and I will not mention any names- with some significant international businesses is that, when you talk to the Chief Executive or the Director of Environment, they are massively keen on things like green leases and energy saving, and they will promote themselves as a green company. However, when it gets down to the conversation with lawyers in the room and the guys who are producing the documentation, they will then strike out a lot of those things because, to them, it is purely a cost, and they have been given a cost mandate, not an environmental mandate.

There really is a problem between the corporate public relations end and the delivery end. There is something there where there are some sticks to be used to encourage people to live up to what they say. If you get the Mayor and several Chief Executive Officers in a room they will sign up to something; it is then delivered at the bottom end. There is a follow up there that this Committee might want to look at, the things that people have previously signed up to, to make sure they are actually doing them.

Darren Johnson (Chair): Good point.

Nicky Gavron (AM): I have two points: one is, instead of just looking at the costs and the savings, looking at valuations, where has that work got to? That will make a big difference.

The second one is, are there any models elsewhere - I do not know of any - where the landlord is required, before any letting can take place, to make the building energy efficient? - I am not talking about new buildings - so, you cannot let unless your building meets a minimum level.

Edward Murphy (Accenture): Not aware of one.

Nicky Gavron (AM): It's a good idea, don't you think?

Edward Murphy (Accenture): It is pretty good.

Howard Dawber (Canary Wharf Group): It is good for us because we think we would meet it - knock out some of the competition.

Speaker 1: Each building has to have an energy performance certificate now. Before you can get a new tenant in the building, it does not say you have to have a certain level of energy performance.

Darren Johnson (Chair): There is no floor on that?

Speaker 1: Correct. There is a 'school of thought' now where local government buildings have to display an energy certificate. It is something that Canary Wharf is now reviewing. It is something it will be doing it, starting the early part of next year.

Darren Johnson (Chair): Still on the theme of business, before we move on, I have got one more question: to what extent can businesses, working together, play the support and advice role that previously had been initiated by public bodies, if we are seeing reductions in public sector involvement?

Howard Dawber (Canary Wharf Group): There is clearly a role in business organisations in promoting best practice and sharing best practice, with things like a joint commitment to provide a focus for people to move in that direction. There is clearly a role for people like the London Chamber of Commerce and Industry, London First, the Confederation of British Industry and Business in the Community to act as champions in this area; in some ways they are.

Edward Murphy (Accenture): Any high performance business needs to lead by example. Companies that are seen in the market as high performers really need to I suppose, say the right things and play the right game as far as environment is concerned. Most large companies have got sustainability goals and

probably run an ISO 14001 programme, either locally or globally; things like that I think are important - lead by example.

Darren Johnson (Chair): You do feel the role of the public sector has been important then in terms of bringing organisations together, starting initiatives and setting those basic standards?

Edward Murphy (Accenture): The Better Buildings Partnership, which I am a member of, has been really good because that has brought a lot of organisations like Canary Wharf, KPMG and London Underground altogether in a room, which is really, really useful. You can share best practice; you can talk about what you are doing within your own company, and share it with others, that is very useful.

Darren Johnson (Chair): James [Cleverly] is now going to look at the wider issues beyond lighting.

James Cleverly (AM): I am looking initially at Larissa [Lockwood] on this one, but will throw it as wide to whoever wants to come in on this. Obviously, we have been focusing on lighting and we have drifted quite heavily into energy efficiency in the workplace in general. Lighting is not the only power consumer in the office environment. With regards to things we have been discussing, what other areas of efficiency savings could we be looking at in the business environment?

Larissa Lockwood (The Carbon Trust): The other main user of energy would be heating, ventilation and air conditioning. A lot of the issues that we have been discussing today apply to that as well. There is real potential to get a lot of quick wins which require relatively little investment, in the same way that lighting does in terms of controls, behaviour change and so on. Quite recently we did a piece of work with the Cabinet Office on quick wins for central government estates in order to help get the 10% this year. I do believe, if everybody implemented all those quick actions, which are mainly around lighting, heating, ventilation and air conditioning, then 10% would be achievable within a year. That could easily be applied across London as well; that potential stands.

James Cleverly (AM): Does anyone else want to come in on that?

Pete Daw (Policy and Programme Manager, Climate Change Mitigation): Can I just put some numbers on that? DECC estimates, in terms of energy consumption in workplaces, 48% is space heating, 9% is water heating and lighting is 19%. That gives you an idea of the heating --

Darren Johnson (Chair): I believe we have got Rachel Lankester from the Close the Door campaign. Do you want to tell us a little bit about your campaign?

Rachel Lankester (Close the Door): I am with Jeannie Dawkins who is the Chair of the campaign so I am going to let her talk.

Jeannie Dawkins (Close the Door): I am the Chair of the Close the Door campaign. My name is Jeannie Dawkins, as Rachel has just said. We have a campaign which sounds rather off topic but it is very closely tied in. I would like to explain a bit about what we do and why it ties in very much with the lighting. We are absolutely one of the great win solutions. We work with the retail sector to encourage them to close their doors when they are using heating or air conditioning, not at other times of the year; it started a few years ago. It started in Cambridge: there were eight shops in the beginning that signed up to this, we now have over 300 of all types and sizes.

We started working with the Carbon Trust's estimate of the 25% loss of energy going out of the door. After we had been working a couple of years we thought we really needed to check whether it was maybe only 2% to 3% or more than that. We commissioned a study within Cambridge University's Engineering Department. The Glass and Façade Technology Research Group was really right up there in sustainability and research. The results of the interim report on heating came out a week ago; the energy loss through the open doors is really significant. If we take an average Ryman store [Stationery chain] - which is where one of the studies was done - on the high street, with double doors opening on to the street, when the doors were open with the heating on, 54% of the total energy use on site, in the shop - that included the lighting, the photocopiers and all the extra things that a Ryman store runs, including kettles and things like that - was just disappearing out through the door. All of that is very easily solved by closing the door. Obviously, nothing much else needs to happen. It is a big behavioural change but, apart from that, nothing much more.

Now the shops have had various concerns: the most obvious concern about this is whether their footfall is going to be affected. None of the 300 shops in it would be doing this if it was affected, but we have also managed to get some very big companies, like Vodafone, Neal's Yard Remedies and various other ones, to do their own internal surveys on this. It is very difficult to do if you are not part of the company because profits are involved and nobody wants their profit figures to be out on the open for other people to see. Anyway, there was absolutely no problem with any of these with regard to footfall. It is a widely held retail myth, but it is not one that works in practice.

The results of this study produced a huge amount of press coverage right across the board from last week on; I do not know if anybody has seen it, but it has been very wide. This has brought in more large companies: Boots came in yesterday, we have been working with them for some time. There are other very big companies on the brink of participating as well.

From our point of view, where we have worked, first of all the backing of the local city councils has been absolutely invaluable; the shops really do mind about it. We would really like the backing of the London Assembly as well; it is really important.

We would also like to work with the lighting issue because people are so worried about footfall, one of the things they really need is a very obvious sign that the shop is open in their minds. At the moment, if you go through most city centres, the lighting is still on all the way through the night in the shops. It is just a very obvious thing; if you turn off when you are not trading and you turn your lights on when you are trading, your shop is welcoming and it is very obvious that you are open. We do work with the managers on lighting as well. You can imagine it is a very obvious sign if the doors are shut; they do mind about their general energy output. Then we got involved in all the other things that they may be doing in the store, we talked directly to them and to the head offices, so we have a very good link in that direction. We really do feel that the open door question should be tied in with the lighting. We would really like to be associated with this push by the Assembly.

There are a couple of points that have come up this morning that are also relevant to us: one of them is refitting. There is a big problem with shops with the landlord and, I am afraid to say, tenants associations. In their minds the shops often say, "Oh the landlords have got heavy doors on this. We cannot do anything about it." Larger shops like Vodafone are prepared to do their own refits, but the small independents really cannot. Anything that would help them in the way of a refit on their doors would be great. They will find it a great help. Also, if people are going in on refits of lighting and other things, it would be a very good idea to look at the doors and point out the significance of that.

On metering, it is really important; shops very rarely meter what they are up to. They cannot use the standard domestic meters, smart meters, which you can go out and buy, because the electricity use is too high and they need something special. The Ofgem initiative would be extremely useful. If they could have meters in their shops, and possibly showing up by the cash points, that would be extremely useful both for the public and for them.

On green leases that would also be very, very useful. I know that the idea is that a lot of these businesses are on very long leases and you cannot introduce that, but I do think that there is a very good point; it should be included, these various measures, in any new leases that are coming up. There is no reason why it should not be. It is important and it is something that the retailers do bring up themselves. They want a fairly level playing field; they would be quite keen on that sort of thing coming in.

I also had a question for the Assembly which is what goes on with bylaws? In New York there is a bylaw, where larger stores are heftily fined if they are caught with their doors open on a regular basis, rather than just a one off. I would really hope and - I think we are coming round to commonsense in this country without needing something like that - I wonder if there are any bylaws that can be brought in on lighting and on open doors that would help?

Pete Daw (Policy and Programme Manager, Climate Change Mitigation): "I do not know" is the honest answer to that; I would have to look into it. Other Members might know a bit more about bylaws than me.

Nicky Gavron (AM): London Councils can bring in bylaws; we should work with them.

James Cleverly (AM): The one thing that really struck me about what you said, which is very neat closed loop with the discussion - if I can use that phrase - is about the very visible signal, going back to the lighting thing, that when the lights are on the shop is open and when the lights are off the shop is not open. That is quite an interesting point from the retail point of view. London, as a city, has a huge amount of retail space as a proportion of its area - I think that is something.

In terms of the more 24 hour businesses like the City and Canary Wharf, for example, are there things that we can do, particularly about the space heating, to have smarter space usage? I would hate to think that we are heating whole buildings all night because someone is trading with the west coast of America. What is the situation with that? How smart are the current systems?

Howard Dawber (Canary Wharf Group): They are quite smart, in fact, looking at the new buildings that we are designing now for future tenants, our problem, if I am honest, is not heating; it is cooling. There is one building we are in the process of doing at the moment which is a very large building. One third of the space inside that building is plant - two square feet of people for one square foot of equipment. That is information technology, electrical and mechanical equipment. It all generates a lot of heat by itself. We are finding it quite difficult to give that heat away; there are things that can be done there. When you have got spare heat, who do you give it to? Things like local heat and power systems, because, domestically, the issue is heating, people want to heat their houses, get hot water and so on, so we would like to give it to domestic users. The problem is, there is never enough domestic demand being constructed at the same time as commercial availability.

We do have now quite sophisticated air conditioning and heating systems which will automatically turn off and take the heat down at points where the building is empty. We recently started changing the air conditioning in One Canada Square. It is only 20 years old but, still, it is 20 years old technology compared to new technology. The new system we are putting in, so far in the floors that we have put it in, has saved six tonnes of CO₂ per floor per year, which is not bad; that is tangible a improvement; it is a more efficient system; it is a better system operationally too. There are things you can do.

Mike Tuffrey (AM): Going back to the retail, because you have a lot of retail square footage, can you adopt this campaign?

Howard Dawber (Canary Wharf Group): I suspect it is something we would look at. I will take this away and check with the retailers. We are in a slightly different position, in that the vast majority of our retail is in retail malls. I was thinking through how you get into those. At Canary Wharf, you have got two main door systems; they are big heavy doors, but they have an automatic closing mechanism. Then we have push button entry for disabled customers and disabled staff. We are hugely proud of our disability access and that is something that needs to be looked at in terms of the context of opening doors, and so on.

Within the environment - we will have a look at and will write to the Committee on - the stores at Canary Wharf all have open frontages but to the mall, so it is one heating system for the whole thing. Almost nobody has automatic doors. The doors are just open, they do not shut, so you are not using the power for the doors opening and shutting either; it slides shut and locks. It is something we will look at because if it is something we can sign up to, then I would be quite keen to do that.

Eleanor Fenton (Canary Wharf Group): As Howard said, all the doors in our retail shops generally open on to the mall, and access into the mall itself is through closed doors; there are no doors open all the time. The majority of our retailers, where lighting is concerned, at night - when their stores are closed - the lighting will go off in the stores. Obviously the mall is still open to the public so the lights will stay on there.

There are some shops outside on the estate; their doors are closed already. For whatever reason, I do not know, but they do tend to do it. Definitely, the ones inside are opening on to the mall where it is a heated area anyway, so it is not like they are leaving their doors open and cold air is coming in and the heat is escaping. It is not so much a problem for us there and, certainly, the outside ones do shut their doors.

Victoria Howse (London Borough of Islington): I want to say I think this is fantastic and really exciting and I would love to talk to you more about it in terms of Islington.

We touched a little before about public sector support for business support in terms of energy reduction. Islington has a climate change partnership which now has over 200 members. Initiatives like that, which will need to change, and we are now moving towards looking at alternative ways of funding initiatives like that, being able to bring in more business sponsorship potentially, are really good ways of being able to push out things like this because you have already got a captive audience of 200 odd members who are already signed up to a partnership-wide target, who already share in best practice and, who feel part of a group that you can push these initiatives out to. Yes, I would love to talk to you more about that.

Darren Johnson (Chair): Good; it would be good to hear your feedback on that. It seems such an obvious campaign and a very welcomed campaign. There is such a big source of energy lost. Presumably,

if stores were keeping their doors closed, then you would not be met by that really uncomfortable blast of hot air when you walked straight into a store, which is very energy intensive and not particularly pleasant either, I do not think.

Rachel Lankester (Close the Door): Absolutely, I would like to say thank you very much for letting us speak today; it is a very quick win being here. All you have got to do, is get the shops to close the doors and it will become a huge energy saving; it is a bit of a no brainer.

Angel Islington is one of the worst places: it is an open mall, there is H&M, Gap, French Connection, Monsoon, Accessorize and Oasis. They have all got their doors wide open and when you walk into them, they say it is the head office policy, so there is nothing that the local manager can do about it. It really has to be very high level pressure that is put on the head offices of these retailers to really make a difference. Thank you.

Darren Johnson (Chair): Thank you for taking the trouble to come along. I am sure that this will feed its way into our final report; that has been extremely useful.

Murad Qureshi (Deputy Chair): One question in response to Rachel's contribution. Display lighting in retail can be seen to be very important; does the research, if there has been any, show anything in relationship to the footfall after hours? Are they getting enough people going past to justify the display lighting? Selfridges, for example: most people walking past late at night are probably intoxicated!

Rachel Lankester (Close the Door): That would be an interesting survey.

Jeannie Dawkins (Close the Door): We have no data on that at all. There is an awful lot you can do. Obviously, to make bulbs that make lighting displays, not take very much energy at all. We do talk to them about that but we do not know about lighting displays.

Murad Qureshi (Deputy Chair): That maybe something we could look into.

Darren Johnson (Chair): Yes.

Nicky Gavron (AM): I think the Close the Door campaign is absolutely amazing. Going back on the lighting issue: there is a disruptive technology - LED indoor lighting - which is on the market now in a 60 watt equivalent; I believe you will soon be able to get a 75 watt equivalent; it is so much better than fluorescent lighting; it is better for productivity; it is better for carbon; it does not have mercury in it. There are all sorts of reasons why we should be seeing fluorescents as temporary and transitional. We do not want to get locked in to having to use fluorescents; if we are doing any retrofitting we need to be thinking about LED. I throw it out there, because the more we demand LED the more the price comes down. It is the disruptive technology, it has got to leapfrog over fluorescents which are not good.

Edward Murphy (Accenture): We have got to remember it is a new technology and putting that new technology into lighting schemes is just now coming to market in terms of the mass market. They are very, very busy in China making lots of this kit now and it is now becoming readily available and it is surprisingly, good quality lighting now.

Nicky Gavron (AM): Yes, it is a much nicer quality than fluorescents.

Edward Murphy (Accenture): Yes, but it is still quite new. A lot of consultants are very, very afraid to touch it and design it into general floor office space as general lighting because it is so new. There is a little bit of risk attached to it.

Howard Dawber (Canary Wharf Group): I am told we are there already on some of our floors that we are retrofitting now, with LED lighting.

Eleanor Fenton (Canary Wharf Group): They are LEDs that we are retrofitting. Also, we have changed some of the lights at the top of the buildings: the halo lights have been replaced with LEDs. We are moving over to our car park lighting; that is also being changed to LEDs, because of the way forward.

Howard Dawber (Canary Wharf Group): It helps being a big customer for some of these things.

Nicky Gavron (AM): That is great to hear.

Pete Daw (Policy and Programme Manager, Climate Change Mitigation): We are also just about to start trialling LED lighting in the café. It ties in, again, to a wider landlord tenant issue which is, as a tenant in this building, when we hand it back, whenever that is - I am not sure what the date is - all the fixtures and fittings we had when we occupied the building, technically, have to be the same standard when we return it. That is quite an interesting issue for things like lighting in 20 years' time or whenever it is. Hopefully that will be somebody else's problem.

Edward Murphy (Accenture): Somebody has to pay for that; it is the dilapidation. Someone will have to pay for it, if you upgraded your lighting to LED lighting, when you take the building back; you are expected to see the old lighting still there. It is ridiculous but that is the case.

Darren Johnson (Chair): Thank you very much to our guests for your contributions this morning. Thanks also to the Close the Doors campaign for your contribution as well.