

10/07/2019

Camden Citizens' Assembly on the Climate Crisis - Unanswered questions from Session 1

Questions posed by participants to the speakers which were not answered during the Q&A session have been answered below by the Assembly team.

- 1. Why isn't public transport free if cars are such an issue?**
 - a. That's a great idea to be look at in more detail. We will make sure to revisit this during sessions 2 and 3 where we are looking at solutions and actions. The obvious challenge would be how public transport is paid for if there is no charge to use it.

- 2. Is the government putting more resources into protecting the nation from the consequences of climate change or minimising/reversing the causes?**
 - a. Climate change adaptation versus mitigation is a very interesting area. As the impacts and effects will only worsen if we don't take urgent action, it could be argued it would be more effective to invest in mitigation. However, others argue that climate change is already happening and that we therefore need to focus on adaptation. The UK government spends a significant amount on flood risk protection, but this is probably dwarfed by the level of spend on climate change mitigation due to private sector investment in renewables, clean energy and electric vehicles.

- 3. Is there a way as an individual to put pressure on the aviation industry to tax fuel?**
 - a. This would be a national and possibly international level decision. The best action as an individual could be things such as writing to your local MP, asking Camden to consider lobbying central Government, supporting an organisation asking for the same thing, or by choosing to use alternatives to flying where possible.

- 4. Can wind farms change the direction of the wind?**
 - a. Wind farms can't change the direction of the wind, but they can cause turbulence to air flow as it crosses the turbine, this is called the wake.

- 5. How do we convert high rise buildings to solar?**
 - a. High-rise buildings often have very little roof area for solar panels to be installed. Panels can be installed on the facades of building but this is often more complicated and less efficient as these surfaces receive less sunlight. Most new buildings in Camden are required to install solar panels as a results of planning requirements.

- 6. How can you prove that all of our efforts will make a change?**
 - a. If everyone changed their behaviour in Camden by driving less, using less energy at home and at work, the national data for Camden's CO2 emissions should evidence a reduction in emissions.

7. Are school strikes the best form of protest?

- a. Recent protests such as the Extinction Rebellion protests and the School Climate strikes have significantly raised the awareness of the climate crisis over the past 6 months. Whether it is the best form of protest is a difficult questions to answer.

8. Our politicians know all of this information why don't they lead and implement policies?

- a. Good question. Part of the issue is that not all residents in Camden agree that car use should be curtailed or that conservation areas planning policies should be relaxed to enable deeper energy efficiency improvements to buildings. Should the Assembly conclude that more needs to be done, this could give politicians a stronger mandate for local change.

9. Do we need cars?

- a. Arguably cars are unnecessary for trips within Camden because the borough has excellent public transport, cycle infrastructure and most car journeys in Camden are walkable. The Mayor of London's transport strategy is targeting 80 percent of all trips to be made on foot, by cycle or using transport by 2041 (in 2015 it was 63%). There will likely always be a need for some car trips, but the vision is to keep these to a minimum as much as possible. Some residents will always need a car for mobility reasons and in such cases we need to ensure that the vehicles are low pollution.

10. Why was single use plastics not mentioned?

- a. Whilst single use plastics is a major environmental challenge, its impact on CO2 emissions and global warming is relatively small. It is still an important thing to address in Camden, so make sure to put forward your ideas on this in sessions 2 and 3.

11. Green Walls around schools – how does that help?

- a. Green walls around schools are typically used as a way to improve local air quality as opposed to reduce CO2 emissions. They can also improve local ecology and help cool the local microclimate.

12. Can we transport the excess water to the more dry parts, this is possible with oil etc.?

- a. Water networks in the UK are managed on a regional basis by different companies, for example London is managed by Thames Water. Pipe networks in these regions are not interconnected, meaning it is very difficult to move water from wetter to drier regions. Water can be moved by other means such as a vehicle tanker, but this is very difficult considering the volumes needing to be moved.

13. Can councils put solar panels on council buildings and council blocks?

- a. That's a great idea to be look at in more detail. We will make sure to revisit this during sessions 2 and 3 where we are looking at solutions and actions.

14. Are people as individuals too lazy? Can we rely on individuals to lead change?

- a. We think there is role for everyone in tackling the climate crisis from individual to governments. Collective actions by all will be needed to deliver the changes required.

- 15. What technology can we use to reduce CO2 and the challenge of climate change?**
- a. We mentioned a few examples in session 1 such as heat pumps, building retrofit, renewable energy etc. We will be looking at more solutions in sessions 2 and 3.
- 16. With rising sea levels, can we use more water for energy and fuel?**
- a. Water can be an excellent renewable energy resource harnessing power from waves, tides and rivers such as dams. Rising sea levels are unlikely to increase this resource but there is still lots of untapped potential in the UK and across the world which could be looked at.
- 17. Can't we find a way to use the emissions in a positive way?**
- a. Trying to capture and use CO2 emissions for something useful is an area currently being researched significantly. [A project in the UK was recently](#) announced where CO2 would be captured and used in the manufacture of chemicals for the food industry.
- 18. Is this information part of the curriculum at schools?**
- a. Climate change is included within geography and science curricula within schools, but some students have recently said they're not learning enough about climate change on the current curriculum.
- 19. What is the impact of 5G on biodiversity (trees are being cut down to make space for transmitters)?**
- a. There is no known direct impact of 5G networks on biodiversity, however if infrastructure is causing trees to be cut down this would have an impact.
- 20. What if the sun is getting hotter, what about that? Hotspots, any facts on this?**
- a. This [NASA article](#) explains the effect of the sun's temperature on our climate, and how it has not affected the observed global warming trend.
- 21. What is the link between CO2 emissions and tree growth?**
- a. Enhanced CO2 levels can help plants to grow more, but it is thought that this is only temporary ([link](#)).
- 22. What impact will leaving the EU have on UK climate change initiatives and ability to collaborate?**
- a. The impact of leaving the EU on specific environmental laws is not fully understood at the moment. The UK did recently amend the Climate Change Act 2008 to set a 'net zero carbon' target for 2050 however, the first major economy to do so. This is a UK law, so regardless of the Brexit outcome this commitment will likely define the initiatives implemented over the next 30 years.
- 23. Could we build a Hyperloop in Europe?**
- a. It could be possible. It will be interesting to see how the pilot projects perform first.

24. How do we find out how our pensions are invested? What are the best divestment campaign strategies?

- a. This [article](#) includes seven steps to find out and what to do next.

25. How can government get corporations to be under control?

- a. This is a major challenge as identified with over two thirds of emissions in Camden from the commercial and industrial sector. We will be looking at possible ideas and ways to engage businesses in sessions 2 and 3.

26. What are the most critical societal consequences of a 2 degree warming?

- a. Globally there is an expectation that 2 degrees of warming would make some parts of the world uninhabitable (particularly low-lying regions in the Indian Sub-continent and parts of South and North America) with many communities forced to migrate. Refugee movement is already a key political issue in southern Europe and on the Mexico and USA border. There is also concern that food production could come under threat. We may also see more wildfires in the USA and southern Europe with these threatening life and property. There are also likely to be significant ecological impacts too.

27. How effective is reforestation at removing emissions?

- a. Calculating the potential trees and reforestation offer for the capture of CO2 emissions is a heavily researched topic. [This article](#) summarises some of the recent findings. One widely cited study (mentioned in the article) from 2017 suggested that forests and other ecosystems could provide more than one-third of the total CO2 reductions required to keep global warming below 2 °C through to 2030.

28. How carbon neutral is Camden's Town Hall following refurbishment?

- a. Within the planning application for the refurbishment, it states the building CO2 emissions will be reduced by 60% following the refurbishment. This was achieved through improving the energy efficiency of the existing building as well as installing an air source heat pump to provide heating.

29. Did the projection graph included in the presentation include what businesses should be doing?

- a. The projection included some conservative assumptions regarding business, mainly savings from improvements to lighting and the efficiency of ventilation and air conditioning systems. Greater actions by businesses and organisation would improve the projections significantly.

30. What is the carbon cost of moving onto electric heating? Is there a huge one off cost and is it factored in?

- a. The carbon intensity of UK electricity has reduced by over 50% in the past 10 years meaning the carbon costs of electric-based heating is much less than it used to be, this is especially true with technology such as heat pumps as they are typically more than 250% efficient. As was discussed there is a large capital cost associated with installing the system. Running cost savings are limited as well due to the large price difference between gas (cheap) and electricity (expensive).

- 31. What are the Council's plans for removing gas boilers from their housing stock? Is the council investing in learning and incorporating new innovations in architecture?**
- a. Camden is looking at alternatives to gas boilers such as district heating and heat pumps on some housing sites, but there is no long-term strategy in place. It would be great to discuss ideas for how this could be done in sessions 2 and 3.
 - b. New development sites often consider gas boiler alternatives as part of the planning requirements, and it is these projects which take advantage of new innovations in architecture. The [Agar Grove estate](#) for example is planned to be the largest PassivHaus estate in the UK for example, an exemplar international standard of energy efficiency.
- 32. If 75-80% is building related, if every rooftop in Camden had solar PV installed would this not be the most practical solution?**
- a. Electrifying energy demands like heating and transport would be needed to ensure this had the greatest impact, but it's a great idea to be look at in more detail. We will make sure to revisit this during sessions 2 and 3 where we are looking at solutions and actions.
- 33. Are you aware of any big schemes that are coming forward that will help people convert from gas to electric heating?**
- a. The Renewable Heat Incentive is a Government subsidy scheme for technologies such as heat pumps, but this is due to end in 2021 with no replacement yet announced. There are no other schemes that we are aware of.
- 34. Is there the infrastructure in place in Camden to cope with the additional electricity load (cables)?**
- a. This is a great question. The increase in electric demand due to technologies such as heat pumps and electric vehicles is likely to be a major challenge in Camden and across the country. UK Power Networks who manage the electricity grid in London are looking at a wide range of technology solutions to manage these challenges as digging up the roads to install new cables would be very expensive and disruptive. These solutions include things like battery storage and 'smart' control of energy demand, such as only charging electric vehicles at night when the demand on the network is low or automatically switching appliances on and off.
- 35. Is the council truly joined up and are they 'thinking green' in every decision that is made?**
- a. **This is something which could probably be improved.** We will make sure to revisit this and think about what sort of actions it could be translated into during sessions 2 and 3.
- 36. Can they bring the 2022 date forward if it is a crisis?**
- a. The 2022 date for no further replacement of gas boilers was just a scenario considered within the modelling of Camden's Carbon emissions to assess the impact. It is an idea we will make sure to develop further during sessions 2 and 3 and see how it might be implemented.

37. How many people in Camden die each year from air pollution?

- a. The number for Camden is not known, but a study in 2015 ([reported here](#)) assessed nearly 9,500 people die early each year in London due to long-term exposure to air pollution.

38. How many of the cars which are driven through Camden are actually driven by Camden residents?

- a. The precise data on this is not known, but it is known that through-traffic is a large contributor to vehicle movements in the Borough.

39. How can businesses be focused on a more ethical bottom line, eg. CO₂ emissions, rather than just profit.

- a. This is certainly a challenge, but lots of businesses at a range of scales are beginning to look at how they managed their impact beyond just financial profits. Certified [B Corporations](#) for example are businesses that meet the highest standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose. Companies with this certification might be a good resource of best practice which we could look at how to implement in Camden. Camden could also use its purchasing power to encourage more businesses to shift to ethical practice.

b.

40. Is it practical to install heat pumps in flats? Why is there no subsidy from central government?

- a. The biggest challenge for installing heat pumps in flats is the space for the equipment. The main bit of equipment needs to go outside and if the property is not on the ground floor, finding a way to mount it on the outside of the building could be challenging. Space for a hot water cylinder is also needed, similar to the old hot water tanks in airing cupboards. Flats which are heated communally (i.e. with one large boiler which serves multiple flats) could be simpler to supply with a heat pump as this involves switching out the technology in one location. The Renewable Heat Incentive is a subsidy scheme to support heat pump installations, but this expires in 2021.

41. How efficient would retrofitting electric storage heaters be?

- a. As the electricity grid decarbonises, electric storage heaters will become more carbon efficient. A challenge with storage heaters however is the cost of running them. They are 90-100% efficient as a heating system, compared with a heat pump which is 250-300% efficient so the running costs are much higher. In highly insulated buildings which don't need much heating however, they could provide a low-carbon solution.

42. Who will take on the costs of the improvements? Government grants are not enough

- a. This is the main question which needs to be addressed at all levels to tackle the Climate Crisis. We will make sure to revisit this during sessions 2 and 3 to try and find ideas and solutions for different ways of funding solutions which could work in Camden.

- 43. Why doesn't Camden promote LED lighting to its residents? Especially the vulnerable and people who can't afford it?**
- a. Camden currently promotes the use of LED lighting through its fuel poverty program '[Well and Warm](#)'. But perhaps there could be a better solution to promoting this in Camden to all residents. We will make sure to revisit this idea during sessions 2 and 3 where we are looking at solutions and actions.
- 44. How efficient is it to install secondary glazing instead of double glazing?**
- a. Secondary glazing is an effective solution for improving the performance of windows where they cannot easily be replaced with double glazing. Secondary glazing is about half as effective as double glazing, although it can provide a significant improvement on standalone single glazing.
- 45. What about a Camden Green levy?**
- a. That's a great idea to be look at in more detail. We will make sure to revisit this during sessions 2 and 3 where we are looking at solutions and actions.
- 46. Why are we not promoting and using the technology? Is it all about cost?**
- a. Cost is a barrier, but so is planning policy and the age of Camden's building stock, which makes some technologies harder to implement.
- 47. Why isn't there enough space to plant trees?**
- a. Space is very limited in Camden, as it is a dense urban Borough within London. There could be ways to plant more trees across the Borough and to re-wild certain areas encouraging biodiversity improvements. We will make sure to revisit this idea during sessions 2 and 3 where we are looking at solutions and actions.
- 48. Why can't we come up with other technology apart from electric cars. Catalytic converter used to be the way forward.**
- a. Catalytic converters remove toxic gases such (nitrogen bodies, carbon monoxide) from the exhausts of cars, but unfortunately they do not remove the CO2 emissions. Alternatives to electric cars such as hydrogen are being considered, however electric cars currently dominate the latest thinking.
- 49. Had a new boiler put in last week. When will Camden stop this?**
- a. We looked at the importance of moving away from gas, and the possible CO2 emissions savings which could be delivered. Working out how to achieve this and what actions would be required is the next step. We will make sure to revisit this during sessions 2 and 3 where we are looking at solutions and actions.
- 50. What about the side effects of the suggested changes (e.g. mercury in fluorescent lights)?**
- a. Every action has a consequence, but we need to ensure that actions to reduce CO2 emissions do not have unintended negative consequences. The incentivisation of diesel cars over petrol cars and the negative impact this has had on air quality is a good example of a poorly designed climate policy.

51. How can Camden council change its policies to prevent contractors using polluting vehicles?

- a. That's a great idea to be look at in more detail. We will make sure to revisit this during sessions 2 and 3 where we are looking at solutions and actions.

52. Why are emissions from transport low in Camden as there is a lot of traffic?

- a. There is a lot of congestions and traffic in Camden, but from an emissions perspective these vehicles are not being used 24/7 unlike buildings and the majority of trips are not made by car. In the UK as a whole, emissions from transport account for 35% of emissions (13% in Camden) which reflect the much higher proportion of journeys made by road vehicles, and the lower density of buildings.

53. What power does the council need to compel landlords and building owners? To take actions to retrofit buildings?

- a. Trying to find a way to encourage landlords and building owners to take actions is essential. That's a great idea to be look at in more detail. We will make sure to revisit this during sessions 2 and 3 where we are looking at solutions and actions.

54. Why can't you ban gas boilers?

- a. Local authorities have some control over new developments via the planning system, through which developments are encouraged away from gas boilers. But it is the replacement of boilers in existing buildings which represents the biggest challenge. We will make sure to look at how we might deal with these situations during sessions 2 and 3 where we are looking at solutions and actions.

55. Why can't the walls be solar panels?

- a. Solar panels can be installed on walls and facades of buildings but this is often more complicated to install and less efficient as these surfaces receive less sunlight

56. Can electric motors be switched, instead of buying new cars?

- a. Cars can be retrofitted with electric motors, but it is a very complicated process and is unlikely to be a mass scale solution.

57. How can we get politicians to focus on the long term?

- a. The recent amendment to the climate change act, setting a net-zero carbon target for 2050 will hopefully create a need for long term planning across political terms but this is a challenge. How can we focus on the long term in Camden? We will make sure to revisit this during sessions 2 and 3 where we are looking at solutions and actions.

58. How can we generate the money we need to invest in green tech?

- a. Availability of money and investment is often not considered a barrier at an institutional level, the challenge is directing money and finance towards green technology so it has the resources to develop. Divesting pensions is an effective way of ensuring money is being allocated away from fossil fuels. Locally, we could use carbon offset payments secured through the planning system to kick start some early deployment of renewable energy technology.

59. Why there are no solar panels and windmills, there are skyscrapers everywhere?

- a. High-rise buildings often have very little roof area for solar panels to be installed. Panels can be installed on the facades of building but this is often more complicated and less efficient as these surfaces receive less sunlight. Most new buildings in Camden are required to install solar panels as a results of planning requirements. Windmills, or wind turbines, are not very effective in dense urban areas such as Camden due to wind flows being disrupted by all the buildings. Wind turbines are most effective on a large scale such as wind farms in rural areas or offshore where the wind is powerful, consistent and from a single direction.

60. Can Camden have a car share scheme?

- a. That's a great idea to be look at in more detail. We will make sure to revisit this during sessions 2 and 3 where we are looking at solutions and actions.

61. Insulating existing homes has created problems of over humidity so that de-humidifiers are necessary. Is this an adequate solution?

- a. Insulating existing homes has been known to cause issues of humidity and dampness. The main cause of these issues is an increase in the buildings airtightness. Ensuring adequate ventilation is provided helps reduce these risks, and providing ventilation with heat recovery ensures ventilation is provided without losing any useful heat from the building.

62. Can we insulate from the inside rather than the outside?

- a. Internal wall insulation is an alternative solution. This is often more challenging than external insulation however as it is harder to incorporate details such as widow openings, electrical sockets and doorways. It also results in a loss of space within the property. A further disadvantage is that internal wall insulation could increase the risk of overheating. This is because it removes the exposed thermal mass of the walls which help to even out the variations in temperature within a building.

63. Are we considering the emissions coming from concrete based new builds?

- a. This wasn't included in the modelling of Camden's Carbon Emissions done to date. This is what would be classed as embodied carbon emissions.

64. Why was emissions baseline 2005, versus 1990 IPCC?

- a. 2005 was the first year that Government reported CO2 emissions per UK local authority. Before this year we do not therefore have information on the Borough's emissions.

65. Why is there no consideration of consumption emissions?

- a. Measuring emissions from consumption is very challenging as the emissions associated with producing products could be emitted in other countries, during transport, collection of raw materials etc. It is of course important to tackle all emissions, so finding a suitable way to measure them could be an action to look at in more detail. This [recent report](#) discusses the topic of consumption emissions within cities in greater detail.