

PSY SESSION 1

Transcript Code

[???] = word(s) not clear

..... = indicates a pause or switch of thought mid sentence

Word with (?) = indicates best guess at word

[IA] = sentence(s) inaudible or indecipherable

Participants

E = Elizabeth (Interviewer)

T = Tom (Interviewer)

MS = Male Speakers (Interviewees)

FS = Female Speakers (Interviewees)

Recording starts

E: First of all we'll talk about the groups that you've made, and then we're going to start talking about energy use in general.

1:MS: That's what I haven't got.

E: That's what you haven't got, so what kinds of groups did everybody make?

2:FS: I've got a group that I haven't got.

3:FS: Yes I have, 'not applicable'.

8 MS: I have a 'haven't got' and I have a 'base load', the things I think are essential, and a 'miscellaneous' one for odds and ends, and 'entertainment'.

2:FS: Yes I've got 'essentials'.

3:FS: I've got 'entertainment'.

2:FS: I put 'leisure'.

E: Have you got the same?

5:MS: The groups I've put as in which rooms I'd like to use them in.

E: Fantastic, that's quite good.

2:FS: I've got a bathroom area that's separate, what you call 'essentials'.

E: What kinds of things did you put in 'essentials'?

2:FS: Central heating, lights, lamps and a telephone. There was no telephone on this.

E: There was no telephone; that's quite interesting.

3:FS: I never put a telephone in either.

2:FS: No telephones, because we've got an answering machine and of course it's plugged into the electric, but that's what I call 'essential'.

E: Yes, those are things that you have to have.

2:FS: Other than the kitchen area of course, I've got all that in the kitchen.

8: MS: Cookers and freezers and things.

2:FS: Yes, in the kitchen area everything that belongs to the kitchen, if you could fit it all in.

3:FS: For me, my scooter is fairly essential, so the charger.

E: That's really important, yes.

5:MS: With the increase in double and triple plug fittings, sometimes instead of using a sweeper to do a carpet in a kitchen, now you can actually plug it in and do your lounge floor, all done with the plug inside the utility room.

E: So you vacuum the whole thing all from the one plug in the utility?

5:MS: With three sockets, plug it in, do your kitchen carpet, do the long one beside the door and that's all done. So you've got three sockets but they're in the utility room you see. The only thing you're paying for is the extra socket; you don't use up any different energy.

E: Yes, the energy is the same whatever you do with that.

5:MS: Yes.

3:FS: I use a reclining chair sometimes, and that's electrical.

E: Do you think that uses quite a lot of energy?

5:FS: I don't keep it on very long. I don't think it does, but the power pack seems quite big, so I do think about it.

5: MS: Also when children are in the area where we are, at Wren House, many children come during the weekend don't they, a lot of people come up during the weekend to see their families, and of course you can put the safety plugs on to these things.

E: So the children aren't sticking things in there.

5:MS: Yes. I know that's not an energy saver but it's a safety saver, stops the children's fingers going inside.

2:FS: We use low energy bulbs anyway.

- 3:FS: Yes, but they're not all that bright are they, some of them are awful.
- 2:FS: It depends on which ones you get the wattage.
- 3:FS: I've tried several.
- 2:FS: I've got some that are equivalent to a 100.
- 8:MS: It would be nice to know the wattage of the low energy bulbs, how many watts they actually use.
- 7:MS: 13.
- 8:MS: 13 watts?
- 7:MS: Yes.
- 8:MS: They give you the equivalent of 60 -100 watts in light?
- 7:MS: Yes.
- 3FS: I suppose over the years, if they last x amount of years as opposed to
- 7MS: They're also very expensive initially to replace.
- 3FS: Yes they are. I can't always afford them.
- 7: but there you go such is life
3: yeah
- 5:MS: The other thing that I would be concerned about myself, you know you've got these lights that go up like that and you've got three little tiny things to switch them on and they're very bright. If you stare at them a lot... because I was a health and safety rep at the Royal Devon and Exeter Laundry and we visited Exeter Channing Wood Prison and in Channing Wood Prison, the prisoners have little tiny square things they put on their televisions. It's to stop them getting feedback from the TV into their eyes, and they were complaining that they were getting these things from the TV; it's a safety screen that goes over the top and the prisoners were given the change to give us a chance to do our health and safety.
- 8:MS: What does the thing between you and the screen screen out?
- 5:MS: Well, you know if you put your head beside a TV screen.
- 8MS: Static.
- 5MS: Static, yes.

8MS: It produces static when you turn it on and when you turn it off, so the static isn't harmful I don't think. You could easily earth it.

5MS: Yes, I understand that but nevertheless your hair stands on end but the static coming from you or from the machine itself. It's not extra power coming through electricity, it's the static that's on the screen, whether TV screen makers make it purposely like that so that...

8MS: I think it's to do with the electron [??? 7:30] It runs at a ridiculous number of volts, and produces x-rays which you could do without.

5MS: I'm only mentioning it because it's not a dangerous fact and it's not a cost consuming fact where the public are being charged for a bill, but it's just that most people have TV sets and we did this particular survey for health and safety and it was a very interesting survey but like Elizabeth was saying, we have to take all things into consideration, even little children. Electricity and water just don't go together do they?

2FS: I think the most surprising thing is in our block of flats last year the Council put in all new heating, new electrics all the way through, 'it's going to save you money', and because I'd had a fault in my electric meter I read my meter fortnightly, and it's not made a scrap of difference. The night storage heaters eat up the electric something chronic and they said it would be cheaper, but they also take out my hot water tank and leave me two little boilers, and so the water's costing more as well.

E: So you've found your bills have been going up since?

2FS: Yes, so what they said would be economical isn't. I know we've had a bad winter, but two years ago we had a bad winter and it's still on the same level, and that was the Council's idea of how it would save money.

1MS: That's the using of the electricity not the price.

2FS: It's not the price, it was using the units, I wasn't looking at price I was looking at units used and it hasn't made a difference at all. Now if I tell you that there are some people, one person perhaps living in a flat, and they're getting bills of £500 a quarter, because they want to keep warm.

Now you can't tell me that even though they're getting it now, they got it last year and they're getting it now - alright we know it's gone up, but it's not economical. Why they took out boilers or water tanks to put in two

little boilers, one little boiler in the kitchen and one little tiny one in the bathroom, and that's the Council's idea that you will save money, but it isn't.

8MS: Obviously the numbers don't work.

2FS: No.

E: Has anyone had similar experiences to this?

8MS: They keep wanting to put gas into my flat but I won't have it.

E: So you're just using electricity now?

8MS: No.

E: How are you heating?

8MS: I heat my main room, and technically I should be able to heat my hot water, from a solid fuel fire.

E: Do you find you save energy that way, is it cheaper?

8MS: I buy in a bunch of solid fuel sometime around November / December, and I have this arrangement whereby I take a walk up Mile Lane with a rope, an axe and a bag, and I can't come down with gas or electricity but I can come down with wood. It burns pretty well, in fact it makes the other solid fuel more effective as a heater, because if you put the wood on top, you've got a lot of red glow you can see. This is what I need.

3FS: Does that heat your water?

8MS: Theoretically it should do.

3FS: But does it?

8MS: In practice I haven't been able to get the Council to maintain the damn thing; they're not being very helpful. They've not actually put in writing that they refuse to maintain it, in which case I could probably sort it out myself. In fact they seem to be doing things without getting my consent or telling me what they're doing, some of the time. I don't want gas.

3FS: They're trying to take gas away from a lot of people, aren't they?

8MS: Oh really?

3FS: Yes. I've got a gas fire, which was there when I went there, and they're coming in next week to put central heating in and take my gas fire away.

- 8MS: Will you have gas central heating?
- 3FS: Yes. I mean the storage heaters I've got are terribly expensive. I lose one way and win another.
- 2FS: We're all electric. There's a place in London that blew up because of the gas.
- 8MS: Do we have room for emerging technology discussions?
- E: Yes, is that what you want to talk about?
- 8MS: Well, briefly.
- E: We'll all talk together because otherwise we're going to have difficulty with the recorders I think.
- 8MS: The lady sitting opposite me was saying that she finds her storage heaters expensive. Well, there's a bit of technology that's almost unknown but it's actually possible to put sunlight into optic fibres, which means you can pipe sunshine around your house. Theoretically you could pipe it into your storage heater, which means during the daytime it makes your storage heater hot, and in the night-time, when you're cold, you can get the heat out again.
- 7MS: Is that direct sunlight?
- 8MS: It has to be direct sunlight, yes.
- E: You can't store it like the solar PV cells?
- 8MS: No, it's not like PV. I reckon once you've got the sunshine inside your house, you'll get all the heat out of it one way or another.
- 3FS: I don't get a lot of sunshine in my house; it's facing the wrong way.
- 8MS: You've got a roof.
- 3FS: They won't put solar panels on it because it's facing the wrong way. I've been to the Council about it.
- 8MS: You have nothing that faces south, east or west?
- 3FS: No.
- 7MS: That's not true ...
- 3FS: Well, they won't put it on.
- 7MS: ... solar panels don't have to face the sun.

- 2FS: No, they don't.
- 3FS: That's what they told me.
- 7MS: They don't have to have direct sunlight that is, officially they don't.
- 2FS: Because there is sunlight all the time.
- MS: That's right.
- 3FS: The Council told me recently, because I queried it.
- 7MS: Well, the Council are telling you lies then.
- 8MS: If you have mirrors or lenses to concentrate sunshine, you can put quite a high density into an optic fibre. I have no idea what the maximum power density is, because you'd have to be very careful, if you have an optic fibre bunch with 50kw coming through it, this is a lot of sunshine. I remember seeing a guy who had a 3sqm heliostat array, which is basically mirrors that move with the sun, he had them all pointed at his kettle, he had a big sign up saying, 'danger, solar energy.' 3kw of solar energy is enough to be cautious of.
- 7MS: There's a project in the Mexican desert doing exactly the same thing. They want pure gold and that's how they get it by focussing mirrors on a crucible, obviously the material melts and away you go.
- 8MS: And you don't have any contaminants from your power source, like you would if you were using charcoal or something.
- 7MS: That's right, yes.
- E: We're going to start talking about energy use in general. I want you to have a think, picture yourself at home on an average day. Let's go round and start talking about what you do in your homes on a daily basis, the ways in which you use energy from morning to night. Put yourself at home, think about all the things you do, and like I was saying before, energy can be invisible, sometimes you don't realise that you're using it. If we go round this way, when you get up in the morning, what's the first thing you do in terms of energy?
- 1MS: I get up at about 6.45am, make a cup of tea, take a cup of tea into my wife, then I have a shower ...
- 2FS: We've got an electric shower.

1MS: ... electric shower yes, and after that my wife has a shower as well. We have our breakfast which is cooked, porridge in the microwave using the electric, then of course there's washing up, using the electric with the hot water, and after that there's dinner, cook the dinner. At about 10 o'clock we usually have a cup of coffee, 11.30 a cup of coffee, then we have dinner at about 12 / 12.30pm, dishes after dinner, and then in the afternoon at about 3 have a cup of tea, tea for 3, as we say, have a cup of tea then, and then after that we have tea at about 4pm / 4.30pm. After that there are the dishes to be done, and then a cup of hot chocolate before we go to bed at night. And that is the day.

2FS: Then there's the television, the television goes on at approximately 5pm. What he hasn't mentioned is the washing machine now that goes on at 5.30 in the morning because I'm on Economy 7. I do my washing on Economy 7 so that it's gone off before 7 o'clock.

E: Does anybody else have Economy 7?

3FS: Yes.

3FS: Until next week when they put the central heating in.

E: Do you often delay doing things like the washing?

3FS: I do yes.

E: Anybody else?

MS: No.

3FS: I've got to be careful of neighbours though.

5: yeah we have one

3FS: Because we're in the block of flats to dry your clothes by tumble dryer, but it doesn't cost us anything because on top of the building is a laundrette and there are two tumble dryers there.

7MS: They're horrendously expensive as well.

3FS: Yes they are.

2FS: Well, as I say, that's just as well. Many years ago we used to be able to go on to the roof to hang your washing out, but now you're not allowed on the roof because they've got the phone masts up there, so they supplied us with two tumble dryers.

8MS: Are those free tumble dryers?

2FS: Yes. They took away our facility to dry our clothes and they put in the tumbler dryers free. The actual washing machines in the laundry aren't free but the tumble dryers are free.

1MS: We've got our own washing machine and I go up and tumble dry the washing upstairs afterwards.

E: Do you want to take me through your day?

3FS: I have a shower first and then a cup of tea and breakfast, not a cooked breakfast. I often go out on my scooter. I either listen to the news on the radio or the television in the morning before I pop off somewhere. I go out with something called 'Ring & Ride' once a week and I go to the choir once a week. My television goes on; I have severe tinnitus so I sometimes put the television on to not hear the tinnitus. I use my sewing machine to do bits, I forgot to put that down, but I do use it. I go out and visit things and people quite a lot.

E: So you're not always in the house?

3FS: No.

E: How about you?

5MS: I'm an early riser, I rise early and then I feel tired and I want to go back to bed again, but I stay up and think to myself, oh well, I'll stay up. I think about what I'm going to do and one of the things I go is to try to have a clear head and particularly have a shower to wash myself, so I use the shower practically right from bed, as quickly as I can. Then I have a cup of coffee, try to steady myself, because I read my Bible as well, read my scriptures and Bible, get common sense out of what I'm doing, and then get to the materialistic things, like the television.

As I go through the day, I see this gentlemen chirpily going away digging out the flowers, keeping the flowers for us, we have a chinwag, his dear wife and meet different people, bang into the door a couple of times, because I'm still tired. From about 9, 10, 11, my thoughts go towards... four years ago I had two strokes on my forehead, so that's why I'm in Wren's House you see. I'm getting better.

When I was in my first bedsit, my previous bedsit, I was getting very lethargic about my memory, and my memory was teaching me, right or wrong, I wasn't quite sure, put a kettle on, go and read a book, or something like that, not necessarily the Bible, another book or write a letter, and then I'd find, oh I'll put the kettle on. I found I was doing this; I had a compulsion about putting switches on and off. I'm getting better after four years.

During the weekday now, I'm feeling a little bit less tired now, but you've woken me all up, and the day has got off to a better start and I was looking forward to coming here. So apart from.. my head always feels heavy you see. My psychologist, my neuro..side, she said things will happen and you'll get a negative attitude and you 'll get tiered and a bit niggly sometimes. As the day goes by in the home, because of the compulsion four years ago, I try not to switch too much on.

E: So you're quite aware of that?

5MS: I'm aware of it. I'm aware of the safety factor and I live there safely. And I also have a course of 9 tablets a day to take and these tablets are very heavy. When I go into home, I try to be very aware of how much electricity, what energy I'm using from the electrical side, what energy I'm using in myself for my own health, because I've got high blood pressure as well.

E: Okay then, we'll move on, how do you use energy throughout the day?

7MS: Pretty much the same as the rest of these people here.

E: So quite typical.

7MS: The first thing is a coffee, a shower and then the television goes on as well. I'm single, I live on my own, I have a one bedroom flat, and it's all electric. I leave the television on specifically for the news, I see that in about a quarter of an hour, but I still leave the television on playing all sorts of strange things. I don't ordinarily eat a cooked breakfast, it will be cornflakes or something like that, but coffee, coffee, coffee, and smoke, the two go together for me, unfortunately.

E: Does anybody smoke in their own homes?

7MS: Most people do.

5MS: I gave it up six years ago.

1MS: We don't smoke, we can't afford to.

3FS: I don't.

E: Do you have the window open if you're smoking in your house?

7MS: Certainly not, why should I?

E: I was just wondering.

3FS: It's your own home; you can do what you like in your own home.

5MS: That's right. The only thing I will say is that I need to redecorate more often than other people. I also have in there triple glazing, there's insulation on the outside of the walls that thick, on the outside of the wall. It's a two year old building.

2FS: You're an eco-house?

7MS: Yes.

E: How is it working?

2MS: Beacon Heath?

7MS: Beacon Heath yes.

2FS: I went and looked at them with the Council. How do you find them?

7MS: Well, for me it's great, I love the little place. I love the flat.

2FS: Heat wise?

7MS: It's not a problem for me because I don't particularly want to live in a greenhouse. Now today, because the sun's shining, it's a south facing main window as big as those two doors, they're doors as well so I can open them, the sun will pile in through there and I will actually have to have the windows open because it's so hot. The floor is tiled, ceramic tiles, and they tend to store the heat and then give it out when it gets colder. I'm beginning to realise there are a number of people there that aren't as fortunate as me. They're older than me and they do need to keep the place continually warmer.

I go out during the day and it doesn't matter to me whether the heating's on or not, it doesn't matter, because I'm not there. I don't fiddle around or have an hour here and an hour there, because that just doesn't work. It's like the immersion heater, I've got two immersion heaters, one for the top of the boiler and one for the bottom boiler, and there's no good me saying, 'I'll have half an hour on that and then have an hour on that one', it doesn't work, you need a tank of hot water otherwise you're always going to be struggling, so I just leave it on.

2FS: Yes, I do that as well.

E: You do that?

2FS: When we had the tank on, we left it on. Now there are various ones that switch it off and on, and I've tried to explain to them that it's cheaper to leave it on than to keep switching it off and on, because obviously the water gets cold, you switch it on to heat it up.

7MS: That's why there are two.

2FS: You've got the two, we only had the one.

3FS: Economy 7.

7MS: On top of that on the roof, there are panels that actually heat the hot water as well, heat the water up, and that water is fed directly into the hot water tank, so that's a third, if you like, heat source.

E: Your experience must be quite different I think with the water?

8MS: Oh yes.

E: Would you like to take me through your day?

8MS: I live in a ground floor flat. Now I have been talking to the Council for most of the time I've lived there, suggesting that when they have a void that what they need to do is go over the floors, put in some kind insulation on the ground and other floors, because my floor is a monolithic heat sink, it sucks heat out of the air and of course causes condensation. You walk around and have cold feet, and if you drop something on the floor I don't see it for a few days, there's a chance it will go mouldy. Ventilation isn't wonderful.

I do have cavity wall insulation and double glazing, but the seals have gone on the double glazing. I have a solid fuel fire, so this morning I put the kettle on, raised the fire again, and made some breakfast. If my son's up at home, he's 15, I get up at some ungodly hour of the morning while it's still dark to make breakfast, cook breakfast, use whatever's on the stove, electric kettle, though I occasionally stick a kettle on the fire, I've got a hob, mostly that's a matter of principle rather than necessity.

E: How do you mean?

8MS: The electric kettle is quick; having a kettle on the hob is a different kind of experience. Actually I own a griddle as well, cook drop scones on the hob too. I own a chainsaw, which helps with the wood. There's an electric hedge trimmer, which I don't use anything like as much as I should. I use a bow saw and an axe as well. I cycle for transport, which is part of my energy usage. I don't

use any petrol except for buses, because I do have a bus pass being elderly.

So most of it goes on cooking and some of it goes on the washing machine. I don't have a tumble dryer, I use a washing line, so I wash clothes with the weather, it's just picking the day when they're going to dry, or alternatively hanging them up indoors or going down to the coin wash and sticking them in.

I find the coin wash machines leave an awful lot of water in clothes, which you then have to pay good money to get out of your clothes, whereas my home washing machine spins a lot faster and gets rid of it more, but you don't have a spinner in the coin wash. I reckon if they were to put a spinner in all the coin washes so everyone could get most of the water out very cheaply, because it doesn't cost a lot to run mechanical stuff, whereas heating stuff costs a lot, you could probably cut megawatts off the power usage in Exeter. I have an immersion heater, technically I'm supposed to get the back boiler to work but I'm having problems with the Council maintaining it. I use a computer, I watch videos and listen to the radio, and all of that uses main power. There are a few things I have on battery.

E: Do you charge the batteries?

8MS: I don't have a charger. Some things will charge, I've got some walkie-talkies that charge, and I suppose the batteries in the computer charge. It would be nice to have a backup, the equivalent of a couple of batteries that sit there and have enough hours use if the power fails, but having the fire gives me the advantage that I at least have got heating if the power fails, I can cook a bit on the fire and boil a kettle.

E: How do people use their heating, does everyone know what their temperature their thermostat is set to?

7MS: Yes 16°.

2FS: In the main room in our place I try to keep it at 19° - 20°. I've got two heaters and I only use one, because, unfortunately, we can't afford to have them all on. I would say, while we're at it, that one thing we did do a couple of years ago, you know your bedside clocks that are plugged in? We got rid of those and we got the radio controlled battery ones, which is brilliant when the hour changes because I don't have to go and change them all, they all change themselves.

3FS: Mine's 18°.

7MS: Doesn't that just push producing electricity down the line; the electricity has still got to be produced to produce the batteries, which produce the electric for you, so by buying batteries you are, in fact, just pushing the electricity bill down the line.

E: Indirectly yes.

7MS: I can see why you're doing that because you've got to adapt to your pocket as well, absolutely. I've got just one last point, being a brand new build, supposedly green eco setup, they also provide me with a meter that shows how much electricity I'm using at any one time, and that can be battery driven as well, all you've got to do is type in the right tariff, which I haven't done, and the meter will then indicate the cost.

E: Do you find that helpful?

3: they've advertised them

7MS: Not really, I don't take any notice of it, not any more.

E: You don't take any notice?

7MS: Not really, no. I mean I know what the electric bill's going to be and that's it, what more do you need to know?

8MS: How to cut it down.

5MS: The gentleman was talking about batteries; I think that is a real life saver. Although we use electricity, we use it despairingly or sparingly, sometimes, like others, I'll put a light on to watch TV, and the light's behind me to watch TV which is in front of me, but really there are some places where you can actually get battery controlled TVs, so all you do is take that out, dispose of the batteries and put new ones in, and that's very cost effective.

E: For yourself.

5MS: Yes. Living on my own now I regret having colour TV, the only reason is that it's a bit of a luxury at my age, I'm not old but it's a bit of a luxury at my age. I feel that if I was 50 I would have a black and white one, because you're saving that amount of money on the colour TV.

E: It's not essential for you then?

5MS: The black and white one would do me. You see the same film anyway.

< Break, but background discussion: >

5MS: Do you find batteries helpful if you have certain areas where you can use them?

7MS: Batteries are fine but they've still got to be produced.

5MS: You can dispose of them quickly, can't you?

7MS: Yes.

5MS: If an electrical wire frays, or something like that, you've got the inconvenience of having it repaired, but with a battery you can dispose of it just as quickly as getting rid of it. Where batteries can be used use them.

8MS: I think I'd like to be able to get my hands on some ultra-capacitors, which store energy in a different kind of way. It's still electricity; you need a controller to go with it.

7MS: Just get some submarine batteries and have done with it.

8MS: I'm not sure I have room for submarines batteries, but it would be nice to have something that lasts a bit longer, they have a relatively short lifetime. Batteries do tend to have different purposes; there are also different kinds of technologies in the chemistry.

< Continued discussion after break >

2FS: It's going to get worse; you're going to need more and more ways of saving.

7MS: I was just about to say the same thing. This may eventually help towards the production of electricity in new sustainable ways, rather than traditional earth sciences. Whether it happens or not, I have no idea, but certainly we need to look at the way we use electricity in common and in parallel with the way we produce electricity.

2FS: Yes, that's going to be the big thing.

3FS: And if takes projects like these, then it's worth it.

1MS: There was a time during, before and since the war that Exeter used to have their own water supply, their own electricity supply. They made their own electricity, their own gas, but now they don't, it's all foreign owned. It used to be owned by Exeter City Council.

E: Do you feel there's less control?

2FS: Yes, of course there is.

1MS: There's no control on the outside, nobody's responsible, and this is one of the troubles we've got. The price of oil is going up, so what we want to go more for, for cheaper electricity, is to use the sun.

8MS: I've been looking at the alternative energy, they've put photovoltaic on some of the roofs around the estate, it's a really good way of making hot water too if you use sunshine, because hot water is something you have a use for in various ways. I reckon if little bits and pieces of alternative energy, possibly rubbish to power, which is perfectly possible, there's a Fischer Tropsch process where you turn any old stuff you've got into petrol, pretty much, and so forth.

I reckon if you start putting bits of energy locally, start increasing the amounts of local generation, and at the same time become more efficient, that the two will come together at some point and we'll be off the grid, which will be really good.

E: Would be a fantastic thing.

8MS: That way you're completely independent and if the grid fails, we've still got an electric kettle, the radio still works, but you have to start thinking about it. To implement that, since most of the stuff you're generating locally will be DC, it might be worthwhile having a DC bus that runs all of the emergency lighting, it runs all of the standbys and so forth, but you need slightly different tech for that.

The other one was the political. The City Council is under the influence, virtually owned by Central Government, so they make all the rules, change all the rules, whatever they do. If we, the people, had an organisation, possibly even called the People of Exeter, to own generation, water, anything else we want, we might be able to have something the Government can't touch directly, but we have to set up an organisation.

1MS: I'd like to see it come in. I mean at my age, it doesn't make a lot of difference, but I would like to see it come in especially for younger people, the younger generation, to run everything off that sun's that's coming down and not have anything to do with Exeter City Council, or any other council, or any other body. This is what I would like to see.

8MS: We've got a bunch of windy hills round here. I live on a hill, it's windy, it's cold, and we can use wind. It's a hill, it rains, there's water. There's a bunch of stuff you could do. The cable cars in San Francisco basically have a steel cable which runs up and down a couple of slots and the cable cars go round and round, they basically balance each other. Now I live on a hill, I know how

much energy it takes to get up the hill, I know how much zooming down I get from the hill.

1MS: Yes, but all this sort of thing could be brought in.

8MS: It would help if you build it into the estate though, and a lot more insulation.

1MS: I'm all for it myself yes.

T: There are buildings that exist that are completely self-sustainable.

1MS: That's right yes.

2FS: Ours could be if they put themselves out.

8MS: I reckon if I put the right kind of rig in my front garden, which faces south, I could redirect enough sunshine through my windows to put three or four more kilowatts, or more, into my house.

2FS: They won't let you.

8MS: They've got to catch me.

Recording ends 44:40 minutes