Darwin – Paul Sharp

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Speaker: Paul Sharp

Paul Sharp: My name's Paul Sharp. As advertised, I'm supposed to be speaking on behalf of the Northern Territory Greens. But I'm not. I'm now speaking personally.

Hon. Justice Rachel Pepper: Sorry, we will correct that in due course. Thank you for the clarification.

Paul Sharp: The reason is, that it's a very complex process.

Hon. Justice Rachel Pepper: Sorry, that's fine. If you're here representing yourself that's fine.

Paul Sharp: The intention is that the Anti-Greens will put a written submission in within the month, as per the deadline. But for now it's going to be a little bit more my opinion. A lot of it will be Greens flavoured, I guess.

Just on The Greens topic, just to remind the panel that The Greens took a policy of a ban on fracking to the last election. I think you mentioned in the report that the CLP had a policy pro-fracking, Labour the policy was moratorium, and you mentioned One Territory but I don't think The Greens were mentioned as having a ban on fracking as their policy, so I hope you include that. And by the way, The Greens continue to have a ban on fracking as their policy.

I'd like to have a crack at the climate change issue, as it's a bit of a challenge, and I don't think the report reflects what needs to be reflected in that area. You talk about the two degree target from the Paris Agreement. I think, by now, most commentators are saying that the one point five, even though we've had one degree global warming already, because the carbon dioxide is already in the air and it's not coming down any time soon. The climate will keep on warming and so one point five's probably gone if we don't take drastic action. And I can't see that on the near horizon, then two degrees is probably gone as well.

The forecast obviously varies depending on which model you look at. The business as usual model is predicting about four degrees by 2100. And if you go onto the Bureau of Meteorology website and click on climate change it'll take you to the Climate of Australia section, which is joint Bureau of Meteorology and CSIRO, so a lot of scientific credibility, and they pretty much just targeted straight in on business as usual scenario. And so, we're pretty much being advised as a population that around four degrees by 2100 is what we're looking at.

I would suggest that in the Northern Territory we would really struggle with four degrees. These things are not mentioned in the interim report at this stage, it needs ... Because this is actually going to be an existential question for the Northern Territorians within our life times, it has to be in there. It makes the issue of climate change that much more serious relative to what you've got at the moment.

Between now at one degree of global warming and 2100 at four degrees, somewhere in that zone, and I can't give you any scientific evidence as to where it is, is a tipping point for the Northern Territory. It's the time when too many people will leave, creating vacancies in the housing market, falling property prices, and perhaps the collapse of the Territory economy. Unless, by some wondrous governance, a better plan arrives.

That's what we're threatened with, but as the climate scientists keep reminding us, we can make different decisions. We don't have to go down the business as usual path. Obviously to do fracking in the Northern Territory, would be part of the business as usual path. Business as usual refers to the continued use of fossil fuels as our primary energy source around the world, with only a very slow transition to non-carbon- emitting sources. So far, that's the general direction the world has been going in, with exceptions, of course. There's some countries making wonderful progress with rapid transitions to renewables, shutting down coal-fired power stations and so on.

The question Territorians should be asking themselves is when is that tipping point going to occur for us. Maybe you could argue it's started already, but I'd say the recent exodus of a small proportion of the population has probably got more to do with the economics of our wind-down of the Inpex Project. But we do have a very seasonal tourism market, which is a reflection of temperature I would suggest. Most of the Territorians will actually tell you the best time of the year to come here is in the wet season, when the environment is flourishing. But they don't. And the perception is that it's too hot.

So we've also heard recently in the newspaper that the tradesmen are having trouble keeping their apprentices. There's less than a 50 percent retention rate of apprentices going to complete their apprenticeships. And it

was suggested, that again, for them temperature was a factor. Obviously, most trainees are working outside.

So there's some signs that there's some heat stress going on. Heat stress tends to be focused, of course, during the build-up, at certain times of the year, meanwhile the other times of the year we've got nothing to worry about. But as the temperature rises, the period of heat stress expands. And heat stress is as much an endurance challenge as anything. What tends to happen towards the end of the build-up is people go troppo, as they say. There's a lot more stress and they suffer a bit from that. So what we're looking at is an extended period of extreme heat stress, with occasional episodes of extreme heat wave. At some stage, let's call it 2050, we're at let's say 2020 now, 2050, 20100 is the four degree, somewhere around there, maybe before. But it's a critical issue for us, happening in our lifetime.

Usually the problem with discussing climate change is what's known as the Great Disconnect; people just don't want to know about it. Now part of that has been recognised as denial, as part of the grieving process, which is normal. But we're all going to have to deal with it eventually, because it's in our face. We'll all have to go through the various stages of the grieving process. And I think a lot of people have moved past denial now. Not some of our political leaders, but ... There's also a factor of our fossil fuel industry propaganda and to the extent that they might be influencing the government, of government propaganda, against people accepting climate change as a very important issue. In fact, there's far too many politicians, The Greens aren't one of them, that are in some degree of denial or at least inaction.

But the real reason for the Great Disconnect is that it's actually a problem of human psychology. Climate change, the nature of it, tends to be impersonal, long-term. As far as you can think ahead it's a minor change, it's happening somewhere else, perhaps to the future generation rather than now. And it's not really our fault, somebody else did it. So there's a disconnect, and that's the psychology of it normally. But what we have here, with this fracking inquiry and in the Territory, is an opportunity to make it personal, existential, as in we don't want to have to leave the Territory because we like living here. It's personal because it is affecting us in the Territory. We're on the front line for climate change here. We're far enough north, we already have a borderline temperature. So it is happening here, to us.

The time frame we're looking at, if let's say we suggest 2050, is within our lifetimes. The average voter, yes it's within their lifetimes. Now normally, it- You would still get to the point where you'd say it's indirect. It's not our fault. Somebody else is doing it. But with this inquiry, we have an opportunity, a very rare opportunity ... To actually all say as territorians, lobby our government, get government to say it. Say "no" to fracking. No, to more Green house gas admissions. "No" to climate change. We don't want rapid global warming here. We have the choice. We have a direct

responsibility ... To influence this decision. Our future's ... It's personal at survival level. It's here and now and it's direct. That rarely happens. If the panel could put in the interim report some of these ideas, and really emphasise how critical an issue climate change is, within this fracking issue ... We have a chance to do maybe something groundbreaking.

I know there's some other countries in the world that have ... Got more … or bans on fracking. Or they're transitioning already to renewables. But most of those countries are actually in the situation we're in on the front line. So ... I ask you to put a bit more emphasis on that in the inquiry. Put some figures in on degrees. You can get the information of the ... Whichever website you like. All this stuff is very readily available in the internet. But I'd suggest climate change in Australia has been the most credible for us.

The great territory lifestyle. For those of you who are experienced in a territory, you'd remember this was a sort of election slogan that label was using. What is the great territory lifestyle? It's about being outdoors a lot, playing sport outdoors, maybe working hard outdoors earlier in the day, retiring at the end of the day, having a beer or a wine on the veranda. It's about the outdoors lifestyle and that is the thing that will be impacted the most ... By rapid global warming here in the territory. It'll be one of the things possibly that when people realise it's quite stressful to try and have a great territory lifestyle, they'll maybe be less inclined to stay here. It's actually relevant to our economy because our outdoor workers are to some extent the backbone of our economy. The tour operators, and their tourist clients.

The pastoral industries ... The tradies and the apprentices I've already mentioned, and perhaps in the past I might also mention, that the cattle will be out there suffering and I wonder what's gonna happen to them when it gets too hot. It's been suggested ... In Israel, they put sprinklers out there and that gives them an extra decade or two, perhaps, to continue their pastoral industry. Obviously that's gonna suck up a bit more of your precious underground water resources. We'll come to that later.

Fishing ... Is an outdoor activity. "Okay, it's on the water." But with the sun reflecting off the water, and not too much breeze gets pretty hot out there as well. Remote community workers ... And their clients, which who often don't have much air conditioning. These are the people who are the core of territory economy out there. Now there's a lot of people working in offices doing great things as well but ... As a territory lifestyle, these outdoor industries are critical. And yes, there will still be people staying in a territory because they can get up in their air conditioned houses in the morning, drive in their air conditioned cars to work, in their air conditioned office. Go home again, stop at the air conditioned gym on the way home, and so on. We won't lose all the population, but that's not the point. It's when we lose a few percent. Five percent, ten percent, that's when the economy starts

crashing. And that won't take much. So there's definitely an economic potential cost there happening sooner rather than later, I'm saying.

Coming to the methane issue, I would like to congratulate the panel on its work in that area. It's a difficult area because it's fairly new. There's not that much research out there that actually deals with all of the aspects of methane admissions. We were pretty concerned about it because of the methane admissions actually being ... Multiple times the carbon dioxide and therefore are much higher global warming potential. You've quoted some figures in there again for 20 years or 100 years. Based on what I'm saying, I would suggest you add a 50 year figure because that's what we need to relate to. I know it's difficult at this stage because you haven't got an accurate measure of the scale of the industry, but if you picked a figure of say five percent of Australia's … greenhouse gas admissions under the Paris agreement ... When the territory's population's only one percent ... That's actually saying that we're gonna be contributing a lot more to greenhouse gas admissions per capita than we should be. Which again adds to the import of this decision relevant to climate change ... for us. You seem to have an implied goal by comparing the lifetime admissions of carbon dioxide and methane of ... Gas as a fuel, as compared to coal, saying that the gas is half the admissions of coal. The implications seems to me that the objective that you're setting, the agenda you're setting, is we want gas to transition away from coal, to gas. Which is fine but ... What about the figures relative to the renewables? How many carbon admissions are they? We need to be setting a goal that's best practise and that goal is ... To as rapidly as possible, transition to renewables. That should be the primary goal. We've got a lot of coal ….stations around the world and we need to deal with that ASAP and maybe give them the resources we've got available at the moment and how long it's gonna take. Maybe there's some extent of transition that needs to just happen …..but, let's have a long term view. Let's begin with the end in mind. Where we need to go is as fast as possible to renewables ... Which are coming down fairly quickly in cost and becoming very competitive.

Maybe South Australia jumped the gun a bit with its going to solar and wind ... AS quickly as possible. Perhaps a little bit before it was cost effective but good on them. They're setting an example. And what they've done is they've reduced the cost of climate change. They might've spent a bit more money on building the renewables, but maybe that actually makes economic sense. I would suggest the goal should be ... Solar, wind, other renewables with battery storage, a minimum of gas to help you with battery storage and gas, create an effective base load, ending up with a wavy base load. Use the best practise as your goal, and if you want to talk about coal to guess as being a transition ... Then fine, but you've gotta get the renewable figures in there. I think we've got, in summary, a rare opportunity with being in the territory, in this period of desperation relative to rapid global warming. We have a rare opportunity to say "no" to more fossil fuels, "no" to the rate of rapid global warming that we've got ... And "yes" to being territorians for a bit longer than we might otherwise would.

So, please include some of these ideas in the agenda of your report.

Moving on to the economics, at the moment we really don't have much of a plan to work with, or authoritative reports and studies, and I know they're on the way. But what we have heard from other presenters, and presumably the one after me as well, is that there's actually a market glut, globally, of gas. That the Northern Territory gas would be relatively high cost, relative to the spread in the market and therefore, if there was any significant glut, it would be the last to get onto the commodities market internationally.

It hasn't been factored in whether a carbon price is on the near-horizon, obviously that would increase costs and decrease competitiveness. In the case of, if you actually put the petroleum industry here under the Water Act, given the groundwater limitations in the Beetaloo Basin or anywhere else in a semi-arid territory where fracking might occur, I'd suggest paying a price for water might also have to be factored in. I would like to see some leading practise on recognising the extent, the breadth of environmental damage and that be recognised in some serious offsets, which will also add to cost. Consider the long term, and the potential for the need for rehabilitation of legacy wells. All those factors say this isn't likely to be a very profitable industry and therefore there's no economic rationale to have it. It might more likely make a loss by the looks, at this stage.

Now okay you've got reports commissioned, I don't know how they're going to do it, when the scale of the industry is unspecified, the fact that there's so many different estimates it's a magnitude of a fact of ten between them. We've got no idea which market they're targeting, is it the Northern gas pipeline? Are they gonna send the gas to Darwin? Is it for domestic consumption? Is there some overseas market? I don't know how they're going to actually put the thing together, but I think there's going to be a lot of uncertainty even with the report. If we get involved in the East Coast markets where we've been told there's a lot of market distortions then again it'll be pretty much unknown what the economics of it are.

I think I've already mentioned some of the externality costs, there's also infrastructure that might need to be paid for by the Government, roads, road maintenance and the cost to many Territorians of a volatile property market. How much royalties and taxes would we get? Well that tends to get relatively distorted as well by companies taking profits offshore and so on. As far as jobs are concerned, I think the reality is that most of them are going to have to go to Fly- In Fly-Out workers. Especially if you have a ban on the wet-season, so that there's only a six month working season a year. Locals aren't going to get many jobs if that's the case. The boom and bust cycle, we've seen the graphs on the initial increase in gas production and then tailing off. What boom and bust does is create instability in the economy, instability is a cost, because you have to keep restructuring your economy, you have to keep restructuring your private business. That's actually a cost, which is probably not going to get factored in.

There's a question about, you want some realistic economic statements but the ... You know you tried Deloitte's and now you've got another insider, industry insider economics consultant who, I can't see they're going to write a realistic report for you, and a report that the fossil fuel companies want for them, are two completely different things, they don't want to look inconsistent. Fortunately you've done a wonderful thing in putting an independent economist or two on the team. However, I think the most likely thing you'll get is a report from your major consultant maybe toned down a little bit, which would be great, towards in the direction of reality and then you'll probably get a dissenting report from the independent, because they're so far apart, as we can tell at the moment.

The robust regulatory regime, we've all heard that saying too many times. I can't see there being a social licence for a long time because Governments and mining companies have betrayed our trust over a long period of time. A lot of people have mentioned the McArthur River Mine, I have personal experience with that, I got a clause in that would have protected the walls of the diversion channel if they had of re vegetated it, like they were supposed to. But as soon as the thing was dug, they opened the channel, flushed a whole pile of sediment down and the government, oh sorry the ABC Four Corners documentary that didn't happen until several years after documented that quite well. We had a bit of propaganda from the last government telling us that fracking was going to be wonderful for the economy when we now realise that probably didn't have much basis to it. Legacy mines, here and there are still unaddressed, it seems that the government and regulators are not independent but have captured by the people they're supposed to be regulating. I would support, generally, the comments from the Environmental Defender's Office. Obviously he's got a lot more expertise in that field, and some of you people have put stuff in as well.

On water, the sustainability of volume. Your figures in the report saying ... they're a bit incomplete, but I just, on my calculations. If the recharge rates that you're talking about in those figures, which I realise need to be made much more accurate with some field measurements, and the objective of the Department of Environment and Natural Resources of a five per cent maximum usage rate ... It seems to me that with the town water supplies, the bore water, the 800 bores, if you add up how much volume of water they're already using, there doesn't seem to be much left.

So if those figures are even close to correct it looks like the underground water system will be limited, in that it will be a limiting factor in the scale of the industry and if that's correct that needs to be factored into the economic analysis. Obviously the economic analysis is going to happen before you get the information on the actual volumes of water in the aquifer. The other problem is, because of the petroleum industry's exempt from the Water Act, until that gets fixed you've got no control at all, and the consequence of course would be to all the people who needed the bores

and need the domestic water supply, and you can't have that. That's just not acceptable.

There seems to be a big problem with the unknown chemical composition of the geogenic chemicals coming out of the produced water and the ... That I presume is going to actually flow all through the wet-season, has to go somewhere and if goes into the ponds and then they overflow ... Plus, that's a huge tonnage of waste-rock coming out of the drill cores, and I don't know what you're going to do with that either but, presumably that will have problems with leachates that will end up maybe in the groundwater ... Sorry.

Hon. Justice Rachel Pepper: I think that's telling you that your time is up.

Paul Sharp: Okay.

Hon. Justice Rachel Pepper: And it is if you just want to finish up please.

Paul Sharp: Okay.

Hon. Justice Rachel Pepper: ... and it is. If you just want to finish up, please?

Paul Sharp: Yeah. I just want to compliment you on the inclusion of the concept of Solastalgia, it's really helpful. Yeah, that'll do me, I guess. Ah, yeah, the other thing is ... There's a lot of bureaucratic processes here, which, agree, have to be done but in the end, you can go through all of those bureaucratic processes, this inquiry, consultations, scientific modelling, risk assessment, precautionary principles, etc. In spite of that, the reality on the ground is still that, this fracking industry would be an unmitigated environmental disaster, at a landscape scale, and there's no amount of mitigation you can do to stop that. It's the same list of issues with, partially a lack of information, but without practical solutions. There's no social licence in the near term. Those three things are still a reality, even after this inquiry. So thank you.

Hon. Justice Rachel Pepper: Thank you. Mr. Sharp, just a couple of things. First of all, I'm going to presume that you have read the 2016 IPCC report.

Paul Sharp: Yeah.

Hon. Justice Rachel Pepper: That seems to suggest, which is consistent with latest information, that we have not yet reached one per cent global warming but we're just over 0.5, so it's not one, it's 0.5. As for your statement that the Northern Territory would struggle up four degree, I think most of us, and most of the flora and fauna would be dead at four degrees, I think that's an under estimation of the struggle that we would all face at four degrees. That's the first comment I wanted to make. The second comment was with respect to ... There is no,

in fact, independent economist on this panel so that's a misconception of yours, which ...

Paul Sharp: Oh, sorry, the Australian Institute.

Hon. Justice Rachel Pepper: ... which is why we have engaged Asal Allen. I'm certainly aware of the criticism from some quarters of Asal Allen but we maintain, and are indeed exerting, fairly rigorous control oversight of what they are doing and indeed signing off on their assumptions. If anybody thinks that they are bias, they should read a newspaper article that appeared in Monday, I think it might have been the Australian, I'm not sure, but we can furnish that to you if you wish.

Basically, a recent report from Masela Island, saying that the Adoni-mon was unprofitable so they can and do, write balanced reports. There's one question I did have that was ... and I must have misheard you. Certainly, I think everybody on this table would agree that the Petroleum Industry does have to be, that has to be regulated under the Water Act, and my understanding is that the government is looking into changing that Act to capture that type of activity. But I think you mentioned about stock and domestic water use ... did you say? Sorry, I must have missed, I missed your submission on that.

Paul Sharp: Yeah, there were, I think, 800 bores counted, and I think they were using about 600 mega litres per year.

Hon. Justice Rachel Pepper: 6000.

Paul Sharp: 6000, sorry, that's correct. And Katherine Water supply 8000 and the other little towns weren't actually quantified. You add all that up, you're looking at 15 plus mega litres relative to, if you take ... 330,000 mega litres, lets say you go with the 330,000, the higher figure. That gives you a total opportunity of 16,500, if you go with the five per cent, which is about what's being used at the moment. I suspect that there might be some ... The way you've talked about the figures, that maybe the total ... can be a Limestone Aquifer, might be one figure, and then there might be the Tindall and other sub aquifers, as other figures. You cannot really tell from the way it's written at the moment.

And presumably, all that'll get cleaned up when you get more accurate information after CSIRO reports, sorry, more information from Water Resources or maybe Pan jay will give you some of their board data, whatever. I'm hoping that, by the time you get To the final report, the report will give you an indication of how much leeway there is in, that might be available for fracking companies to use.

Hon. Justice Rachel Pepper: As you said, and the keywords are 'available data'.

Paul Sharp: Oh yes, and I realise there may be problems with that.

Hon. Justice Rachel Pepper: Yeah.

Paul Sharp: I'm just saying the way it looks at the moment, on the slightly available data that you've got, it looks pretty dubious.

Hon. Justice Rachel Pepper: Right. So your point in relation to stock and domestic water consumption was that, we need to calculate that in or ... again, I'm ...

Paul Sharp: Its already been mentioned ...

Hon. Justice Rachel Pepper: No, that's right, so I'm still a bit vague as to what submission you're trying to make in relation to that.

Paul Sharp: Yes, a total recharge amount into the Aquifer per year, they now suggest an upper limit of five per cent that could be available for consumption and I'm suggesting that if you say that the bores for stock and the domestic water supplies add up to ...

Hon. Justice Rachel Pepper: Oh, I see what you're saying ...

Paul Sharp: Four point five, eight per cent, whatever it is, it's pretty close. There's not much left, that's the way it looks.

Hon. Justice Rachel Pepper: Yeah, no, I understand what you're saying now, thank you.

Paul Sharp: If I could just respond you a couple of your other things ...

Hon. Justice Rachel Pepper: Absolutely.

Paul Sharp: The point five degrees that you're talking about and the one degree of global warming that I'm talking about, it all depends what baseline you use, so if you ...

Hon. Justice Rachel Pepper: I was just going off the CSIRO data.

Paul Sharp: Yes, so there's different baselines coming out of different sources, and it just depends, which one you use, so I agree that's an issue. Yes, I acknowledge that once you get past about two degrees of global warming, anything up to four, five, six, depending on the tax up. You can have some taxes or get stressed early and spaces will be lost. Others will go a bit longer but I actually agree with you, the environmental damage from global warming is going to be awesome as well.

The independent economist I was referring to, I thought you said the Australian Institute had been invited to work with Asal Allen, is that not correct?

Hon. Justice Rachel Pepper: Asal Allen have consulted with the Australian Institute.

Paul Sharp: Okay, that's what I was referring to there with independent input there.

Hon. Justice Rachel Pepper: Along with a range of other stakeholders too, I might add.

Paul Sharp: Great.

Hon. Justice Rachel Pepper: Yes, Professor Hart?

Professor Barry Hart AM: Can I just clarify a little bit, I think you've taken the figures slightly incorrectly ...

Paul Sharp: Probably, yes.

Professor Barry Hart AM: No, no, no, its quite easy, I just looked at it again.

Paul Sharp: Yeah.

Professor Barry Hart AM: If you take, at the lower end of the recharge rate at the moment, take 100,000 ...

Paul Sharp: Yes.

Professor Barry Hart AM: ... mega litres a day, we think, as you rightly pointed out, there's a lot more information needed there.

Paul Sharp: Yes.

Professor Barry Hart AM: To clarify that. The other figures are about 6,000, by pastoralists. On the basis of the information we've got from the companies, somewhere between two and a half thousand and five thousand, peaking at five per year. So let's take five. Six and five. The 8,000 that you mentioned for water was Katherine, that's pretty much from the Katherine River, a little bit from the Tindall. I think, for Mataranka and for a few of the other Daly Waters, I think about 2000. So you go, maybe 13,000 on 100, maybe 13%. So if the 100,000 is correct, and there's other figures, it's within the realm that you would say is sustainable. But there's still some question marks in those

figures. So I don't think you're quite right in saying it's close.

Paul Sharp: I'm probably not quite right but I'm also referring to, there was mention of a five per cent recommendation in the sub-arid areas, semi-arid areas? No?

Professor Barry Hart AM: No. This is the 80-20 rule. There's all sorts of ...

Paul Sharp: And that applies everywhere, even in a semi-arid area, where the recharge is so episodic. The way I was reading it, the Department of Environment and Natural Resources, in a high rainfall area, can allow for a higher percentage of exploitation, in more arid area allow a percentage, I think that was the idea.

Professor Barry Hart AM: That's right, pretty much, but it's still around about 20% max.

Paul Sharp: Okay.

Hon. Justice Rachel Pepper: Any further questions? Dr. Anderson?

Dr Alan Andersen: Yes, one about the global warming figure, and you made a really compelling argument, that the place would not be a good place to live if we got to the four degrees.

Paul Sharp: Or less.

Dr Alan Andersen: Or even less. What you didn't do though is relate anti-fracking to those figures so wanting to see if you could clarify that. How would the decision to, or not to, frack in the NT, affect those sort of figures?

Paul Sharp: Yes, that is a critical issue and, as I was going through my little table there, and I was talking about, is the impact direct or indirect, in terms of ... So in this case, with fracking, you'd normally think that it's indirect, like most fossil fuel industries. It's not my fault, they produce fossil fuel, it went off to some other state. It got burnt up in the atmosphere and then years later, eventually, I get a trickle down, a bit of climate effect that. What I was trying to say, in this case, we have a choice about this amount of fracking. The amount of green house gases emissions that would come out of this is, maybe five times what our per capita allowance would be here in Australia. So it's actually very significant as an increase of the rate of global warming. The problem is then, you're quite right, how do you relate that back to the Territory specifically?

And I forgot to mention that everyone in the world has to look at what they're doing, in terms of their own greenhouse gas emissions that they're generating in their country. And imagine that everyone in the world is going to make a similar type of decision so there is a collective responsibility. The Territorians have to, need to make a responsible decision, just as the

Chinese need to make a responsible decision. We all have to do it, that's the collective aspect, which is the bit where it all falls down. Everyone says, well, if they're doing it, why can't we, it doesn't make any difference.

We're getting to the point, we've gone so far, we're actually on the brink of a trajectory, an irreversible trajectory towards rapid, sorry, catastrophic climate change or possibly, runaway, climate change, whatever you like to call it. And we're all gonna have to get the idea that every country, every state, every individual needs to take personal responsibility for, to the extent that they can, for their proportion of our greenhouse gas emissions or the reduction thereof. We in the Territory have this little bit of responsibility because we have a choice about the fracking industry. Do we go ahead with it or not, this is our personal responsibility at this time. Usually, people don't have that choice because they just have to buy power off the grid. This is a special situation. Hopefully, that answers your question.

Hon. Justice Rachel Pepper: Thank you very much, Mr. Sharp, we'll leave it there. It's now lunchtime and we'll resume at 1.10pm, thank you very much.