

Date published: Monday, February 4<sup>th</sup>, 2013  
Latest update:

## APPENDIX 13c

### REVIEW OF PROGRAM BY ABC-TV'S QandA CLIMATE DEBATE SHOW

This document is part of, and intended to be read in conjunction with,  
all parts of and appendices to the document entitled *CSIROh!*

#### Transcript of *QandA's Climate Debate*, Thursday, April 26<sup>th</sup>, 2012

##### Legend:

Questions based on, or about or sympathetic to or implying human CO<sub>2</sub> as causation of global warming = 5

Questions neutral = 4

Questions based on, or about or sympathetic to or implying scepticism that human CO<sub>2</sub> caused global warming = 1

Statements from supposed experts in the audience supporting or sympathetic to taking action to cut human CO<sub>2</sub> = 3

Statements from supposed experts in the audience demonstrating neutrality. = 1

Statements from supposed experts in the audience opposing or sympathetic to opposing action to cut human CO<sub>2</sub> = 0

Statement from ABC attributing or implying scientific authority to a position = 3

Transcript error by ABC = 1

The numbers above reveal bias. Of greater significance is the biased sequencing of questions. Before allowing the first question doubting human causation, four questions supporting, assuming and/or implying the notion of cutting human CO<sub>2</sub> were asked. As were two neutral questions. All three supposed *experts* in the audience were consulted and given opportunity to present their position. This would be the tactic of someone attempting to shape audience opinions by excluding contrary views until the audience perceives overwhelming support for the desired opinion.

A member of the audience documented the ABC's apparently deliberate segregation of the ABC studio audience to manipulate viewers' perceptions.

Please consider the following:

- A retired conservative politician and an overweight mining billionaire fitting the incorrect and outdated caricature of mining supposedly represented sceptics. Although both are competent and presented effectively neither was introduced as having a science background. With neither introduced as having scientific qualifications or detailed knowledge of climate science, were they being positioned as typical of sceptics?
- Advocates of climate alarm were represented by an attractive young activist and by the Chief Executive of CSIRO, portrayed as being strong on climate science. Yet the ABC has apparently failed to do its due diligence since CSIRO lacks any empirical evidence or logical scientific reasoning for its climate advocacy supporting the government;
- Advocates of alarm on the panel were effectively swelled by two members of the audience in prime position with at least one already '*miked-up*': Matthew England, Director of UNSW Climate Change Research Institute and Matthew Wright, Executive Director of Beyond Zero Emissions. They effectively made a panel of four alarmists including two (2) presented as scientists;
- Yet both supposed *scientists* (Matthew England and Megan Clark) have seriously misrepresented climate and science. In their written responses to my requests both have failed to provide any empirical evidence or logical scientific reasoning for their climate advocacy supporting the government that funds them;
- Why did ABC-TV fail to provide any opportunity for a sceptical scientist to participate and comment? Why did ABC-TV rely on, and broadcast the advice of Matthew England a mathematician who works on and/or promotes unvalidated computerised numerical models rather than a real-world **climate** scientist?
- The program billed as a '*Climate Debate*' opened and continued as a debate about alternative energy on the clear assumption that CO<sub>2</sub> production needs to be cut. One position was reinforced in the first quarter of the supposed *climate debate*. The groundwork was established, the verdict enshrined. Yet the ABC has no empirical scientific evidence that human CO<sub>2</sub> caused warming;
- Before allowing the first question doubting human causation, four questions supporting or implying the notion of cutting human CO<sub>2</sub> were asked. As were two neutral questions and all three experts in the audience consulted. This would be the tactic of someone attempting to form audience opinions by excluding contrary views until the audience perceives overwhelming support for the desired opinion;

Questions aired on ABC'-TV's *QandA* are submitted prior to the program and selected by ABC-TV.

Despite ABC-TV's biased slant and sequence, the ABC's unscientific poll results before and after the program was aired revealed increased doubt and scepticism afterwards.

One wonders who advises Tony Jones on climate. Consider this revelation about Tony Jones' citing of volcanologist Gerlach in ABC-TV's *Lateline* program broadcast on December 15<sup>th</sup>, 2009:

<http://geologist-1011.mobi/>

Note: In the associated preceding ABC-TV program entitled "*I Can Change Your Mind About Climate*", climate activist Anna Rose refused to debate Marc Morano a distinguished sceptic and accomplished political staffer who even the ABC credits as, quote: "*the man credited with bursting the climate belief bubble in the US.*"

<http://www.youtube.com/watch?v=yGYW7IElirk>

Mark Morano's biography as it relates to climate is summarised here:

[www.conscious.com.au/docs/new/1306\\_MarcMorano.pdf](http://www.conscious.com.au/docs/new/1306_MarcMorano.pdf)

He's an award-winning journalist acknowledged for his balanced coverage of climate science and his thorough and amazingly quick recall of facts. Perhaps that's the reason Anna Rose refused to debate him and chose instead to imply unfounded smears. No one from the ABC held her accountable?

That seems to be a tactic of advocates of climate alarm: make claims and then avoid scrutiny.

Given that on 'QandA' she cites the scientifically and economically discredited and dubious Stern Report one can understand why she refuses to debate Marc Morano. He's famous for his comprehensive command of global warming (aka climate change) facts and his clear presentation.

Anna Rose has close ties with GetUp!, a socialist movement reportedly heavily funded by the union movement, supportive of the ALP and reportedly with ties to similar organisations funded by George Soros actively pursuing global governance of his design.

Jim Simpson from the grass-roots volunteer organisation *Climate Realists of Five Dock* was in the audience. He witnessed what he saw as segregation of the audience by the ABC in an apparent attempt to manipulate viewers' perceptions of studio audience reactions. Comments from his email dated May 2<sup>nd</sup>, 2012 to journalist Miranda Devine are copied and pasted here:

[www.conscious.com.au/docs/new/1307\\_JimSimpson.pdf](http://www.conscious.com.au/docs/new/1307_JimSimpson.pdf)

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TONY JONES: Thank you. So that was I Can Change Your Mind About Climate Change and joining our panel for this special edition of Q&A tonight, the director of the Ipsos Mackay Report, public opinion researcher, Rebecca Huntley; mining magnate Clive Palmer; the co-stars of our documentary, climate change campaigner Anna Rose and climate sceptic Nick Minchin; and the **chief executive of the CSIRO, Australia's leading**

science organisation, Megan Clark. Please welcome our panel.

Well, our audience represents a wide range of views on climate change, plus a handful of expert voices in the audience so you can join the Twitter conversation using the hash tag on your screen and keep an eye out for your chance to share your opinions on [qandavote.tv](http://qandavote.tv). Our first question comes from in the audience. It's from Jenny Curtis.

### **GOING SOLAR 00:01:02**

**JENNY CURTIS:** Thank you. Firstly, I'd like to acknowledge the enormous contribution that coal has made to our modern lives here in Australia and to the mining families that have helped build what we have today. Having said that, as a mother of three school-aged children, I'm gravely concerned about our continuing use of fossil fuels. Given that the energy departments in India, China and the USA are all saying that solar will provide electricity cheaper than coal in the next few years, when will Australia's politicians and business leaders start the real transition work that the other countries are well ahead of us on and by investing in large scale solar? And do you think that there is any chance that we will cease digging, using and selling our toxic fossil fuels - our toxic fossil fuel resources before they run out?

**TONY JONES:** Okay, let's start with Nick Minchin, because you do want to bring this back to an energy debate, as you've just said in the documentary. You'd like to efficiently harness the energy of the sun.

**NICK MINCHIN:** I think it is an energy debate and I welcome that question and I think it's appropriate for you to thank all those who have been part of the coal industry and the coal industry, I think it's still our biggest export industry. It employs thousands upon thousands of Australians. It has been a great industry and it has enabled Australia to have value adding industries because we've had a comparative advantage in cheap energy. So we should all be very grateful that we are blessed with some of the greatest coal resources in the world. I mean, I say in that documentary that ultimately because, by definition, these fossil fuel resources are finite, that humanity will make a transition at some point to alternative fuels and there'll be transitional fuels. It might be hydrogen, it might be nuclear, it might be, you know, more gas in the meantime.

**TONY JONES:** We see you in the documentary championing solar power.

**NICK MINCHIN:** I suppose I'm in the Lomborg camp and I'm really pleased that I arranged for us to go and see Bjorn Lomborg. I think he's a really interesting guy and he makes the point that what we should be trying to do, and I support this, is putting more of our effort into research and development into making things like solar affordable and cost competitive because at the moment it is simply not cost competitive...

**TONY JONES:** Do you agree with him on the...

**NICK MINCHIN:** ...and I don't agree...

TONY JONES: Do you agree with him on the hundred billion dollars a year he says needs to be spent?

NICK MINCHIN: Well, he's taking it as a proportion of global GDP. I think that would be much better spent on R&D into solar than on trying to mitigate uselessly emissions of CO2 from human activity, which will make basically no difference to the temperature of the planet.

TONY JONES: Okay, let's go to Anna Rose. Did you think watching Nick Minchin there that he was making a big shift?

ANNA ROSE: I felt it was a breakthrough moment when we did reach our agreement that we need to move Australia away from fossil fuels. As Jenny said they are harming our environment. They're harming our health and we live in a country that is the sunniest country in the world, one of the windiest. If we can't transition to renewable energy here no one can do it. But at the moment Australia is not leading, by any stretch of the imagination, on renewable energy. In fact we're lagging behind. Now, there are 130 moving parts in a wind turbine. Who do we want to be manufacturing those parts? Do we want them to be made overseas or do we want them to be made here with Australian workers. Now, Nick mentioned that there's a lot of people that work in the coal industry. That's true but actually more people are directly employed at Bunnings than in coal mining and we need to be looking for a future where we're creating new jobs, new industries, innovation and, most importantly, stopping the harm that the coal industry is doing to our environment. And I won't even get started on the Great Barrier Reef, which is about to potentially be destroyed by digging up the Galilee Basin, which is the third largest carbon source in the world and then having ships going through the reef to export that and cause climate change everywhere else.

TONY JONES: Okay, we've got a video question on the solar power question. It comes from Darren Lewin-Hill. We'll go to that before we come to the rest of our panellists. He's in Northcote Victoria.

**PALMER / RENEWABLES 00:05:13**

DARREN LEWIN-HILL: Clive Palmer, clean coal may never prove workable. Concentrated solar thermal power is operating right now in Spain and is capable of supplying base-load power here in Australia. Why don't you throw your billions behind such renewable, zero-emissions technologies instead of high-emissions coal, which causes health and environmental damage on top of its proven contribution to climate change?

TONY JONES: Clive Palmer?

CLIVE PALMER: Well, first of all I'd say that we have to realise we all are mortal. We all live on a small planet. We all breathe the same air. I think all of us want a good future for

our children and I think we want the sort of future that we've had in Australia, the lifestyle we've got. If you go to India, China and other countries, there's over two billion, nearly three billion people in Asia and elsewhere that have got a very subsistent life that deserve a better future. We've had the benefits of building our economy with coal on a sustainable grown rate and it's easy for us to say we'll deny you and your family that opportunity. I don't think overall that's good for Australia. I don't think it's good for the region and there isn't any other fuel at the moment which is competitive with coal. If there was we should be using it. Now, if you don't believe me, if you're really committed, turn off your television set, turn off this light, because we're all benefitting. That documentary, 30 tonnes of carbon dioxide was used in making that documentary. We shouldn't have done it, if we really believe that. You shouldn't have gone on the airplane but you did. 97 per cent of carbon dioxide is by natural sources.

TONY JONES: I want to bring you back to the point of the question, which was actually about solar thermal power precisely, which the questioner says can actually produce base-load power. Now, you spend a lot of time in China. You would have seen the conservative British MP Zac Goldsmith saying in the documentary China invested \$34 billion in the last year in clean energy. Are we lagging behind the Chinese and the Indians?

CLIVE PALMER: I think we're lagging behind a lot of people in a lot of things but the most important thing about clean energy is that the research is done so we can look to the future and look to it positively, whether we do it or someone else does it or we apply it. We have to look at that situation. But as I said, we have to concentrate on solutions, not problems and a solution...

TONY JONES: So what about base-load solar power? Solution for you or not?

CLIVE PALMER: Well, it's got to be competitive but the solution, if we have a look at 97% of carbon comes from natural causes. Three per cent comes from human beings.

ANNA ROSE: Well, that's a bit misleading, Clive.

CLIVE PALMER: Hold on, nobody has concentrated on that 97%, the great bulk of carbon dioxide. Maybe we've got to have a proper balance. Maybe we've got to have new scientists. I'm happy to invest a billion dollars in looking at natural carbon and seeing how we can change it. If the Australian government will do that, I'm happy to do that.

TONY JONES: What about a billion dollars into solar energy?

CLIVE PALMER: Well, solar energy, of course, is manufactured cheaper in China than anywhere else in the world and they've proven that because they've got a lower cost of manufacture by using fossil fuels in the manufacturing process.

TONY JONES: Okay, I'm going to go to someone - we've actually got someone in the audience who's Matthew Wright. He's the Executive Director of Beyond Zero Emissions. He believes cheap solar base-load power is possible. Tell us about that briefly?

MATTHEW WRIGHT: Well, basically in Spain they've got giant plants already operating. They're large fields of mirrors - a sea of mirrors that surround a central tower and they concentrate the sun's rays to the top of the tower. Passing through the top of the tower is molten salt and they store the hot salt, after it's moved from the cold tank to the hot tank, ready for night time dispatch, so they can run water past the salt. It flashes to steam and it drives a conventional steam turbine, the same one in a coal plant. They're building bigger ones in the US now, 110 megawatts and they're continually scaling these up, backed by the US Department of energy lines program. We can build those too here in Australia and as they build each additional plant, the cost comes down. Now, we saw that with rooftop solar, where two years ago systems for people's roofs cost more than double what they do today. That's unsubsidised costs, I'm talking about. They've halved in price and they halved through deployment, so the Bjorn Lomborg answer is not the answer because that's research without deployment. Leave a bunch of nerds in the corner to research for ten years and you get a nerdy answer. But if you dovetail research with deployment, then you actually get the best outcome and the best bang for your buck so you need to deploy and have research feeding back into that. We need that for base-load solar. We need that for rooftop solar and we...

TONY JONES: Okay, everyone's going to know how much it would cost? What sort of investment would be necessary in Australia to produce solar base-load power, this solar thermal system you're talking about?

MATTHEW WRIGHT: Well, we did a research project with the University of Melbourne Energy Research Institute and we came up with \$37 billion a year, so less than 3% of GDP would get us there over ten years. So if we wanted to do it really fast, if we wanted to get it done in a hurry because we need to, that's the state of the climate, then we can get it done in ten years. It's less than what we spend on new motor cars, which we mostly import. It's less than what we spend on insuring our houses and there's less likelihood that Nick's house is going to burn down than climate change is going to be a serious threat to us and I wonder if Nick actually insures his house.

NICK MINCHIN: Better expenditure than the NBN.

TONY JONES: Well, I want you to respond to it because you raised the challenge to scientists and others in the community to basically prove whether or not it could be done, whether you could have solar power cheaper than gas and fuel. Here's someone who says you can.

NICK MINCHIN: Well, we haven't answered that question, what's the unit price of electricity produced there as compared to a coal station?

MATTHEW WRIGHT: Well, initial ones we deploy are going to be 20 cents a kilowatt hour unsubsidised, which is obviously higher than a new build coal, which will be 12 cents, all right?

*ABC Omitted from transcript, Nick Minchin stating even 8 cents and even 4 cents.*

ABC TRANSCRIPT ERROR. Attributed by ABC to Nick Minchin yet is actually Matthew Wright:

(NICK MINCHIN) MATTHEW WRIGHT: But the point is that there's been lots of new build coal plants being built. They're being stamped out in China at a fair rate, so they're not coming down any cheaper, okay, whereas we only need to deploy a number of solar thermal plants, you know, one, two, three, four, five, do that in tandem with the US and Spain and other places, and the price will come down quickly and will be close to comparable with...

TONY JONES: Okay, let's hear - okay, Nick Minchin, former finance minister. Used to be in government. Would you advise governments to look seriously at this kind of investment?

NICK MINCHIN: No, I wouldn't.

TONY JONES: I mean you said it's a better investment than the NBN for example.

NICK MINCHIN: That was facetious. I don't think governments should be investing that sort of money in power stations. I mean I'm an advocate of governments getting the hell out of owning and operating sources of power, so it shouldn't be government and the point of the Lomborg advocacy is to ensure that the private sector will willingly take up investment in these things because it can produce affordable power and that's what we need. You can't have...

TONY JONES: Provided there's \$100 billion fund.

NICK MINCHIN: You know, governments can spend money on anything they like, anytime they like. Most of it they waste, I've got to say, and for governments to start investing in this would be like them owning the power stations and it's been part of our problem because they didn't invest in the transmission (indistinct)...

TONY JONES: Okay. (Indistinct)

MULTIPLE SPEAKERS TALK AT ONCE

NICK MINCHIN: So no government but I want private sector investment.

CLIVE PALMER: There's no shortage of money if it's cheaper. That's the whole point.

MULTIPLE SPEAKERS TALK AT ONCE

MATTHEW WRIGHT: The issue is - the issue is the research...

CLIVE PALMER: (Indistinct) there's no shortage of money but people don't want to put money into academics doing research that hasn't got an application. If it's really, really cheaper, industry will provide the money. Our banks will provide the money. I'll provide

the money if it's cheaper but, you know, they're not going to do it if it's not cheaper. You're saying 20 cents...

**MATTHEW WRIGHT:** It needs to come down the cost curve, just like coal has come down the cost curve. Just like gas came down the cost curve.

CLIVE PALMER: Well, you do that (indistinct)...

TONY JONES: Okay. All right. We could actually have this little...

MULTIPLE SPEAKERS TALK AT ONCE

TONY JONES: One more point.

**MATTHEW WRIGHT:** The research and development in isolation with the nerds working in the universities or at CSIRO without having the commercial guise to build the plants at the same time and take the feedback, it doesn't work. You've got to build the plants...

TONY JONES: All right. Matthew, can we hear from **one of the nerds in CSIRO?** **The chief nerd**, in fact. What do you think about these ideas?

MEGAN CLARK: Yeah, I'm very happy as the chief nerd and, look, we are working on the next generation solar concentrator and to bring that price down. We need to bring the price down. There's no question. We also need to optimise the storage so that we can use it for base-load and it needs to be more efficient. What we're doing that though is we're doing that with industry partners and we've got partners who are prepared to put money in because they are also recognising that if we can address those issues and if we can get down to a cost that is comparable or even better...

TONY JONES: Well, let's remember what our first questioner said. The energy departments of India, China and the US are all saying solar will be cheaper than coal within the next few years. In fact, when you look closely at what they're saying, they're saying between 2018 and 2020. Do you agree with that? Is that possible?

MEGAN CLARK: Look, our projections are certainly not in the next few years. Our projections are that we will need some further R&D to be able to bring it down to a cost that's even cheaper. If you really want it to walk out the door, make it cheaper than the cheapest fossil fuel plant that we have. But in the meantime we need to have sensible transition plans before we get to those solutions.

TONY JONES: Let's go to Rebecca Huntley. What do you suppose - you look at what the public feels about issues like this.

REBECCA HUNTLEY: Yeah.

TONY JONES: What does the public think about renewable energy and the possibility of

actually replacing, let's say, fossil fuel energy with clean energy?

REBECCA HUNTLEY: Well, that's been a debate amongst Australians for much longer than when Nick and Anna had that kind of, you know, kind of that moment on the beach together of realisation and that was supposed to be a kind of a light bulb moment for both of them but actually that's the kinds of conversations that people have been having, you know, for at least five years, if not more, and I think the thing that interests me is that we'll be sitting in a group of climate change deniers, people who don't think it's happening or think that we can't really do anything to control it, who will say, but we need to drive smaller cars and we need to have solar panels and we need to have fuel efficient everything in our lives so instead of a debate endlessly about the science, I think there already exists a consensus amongst Australians that something needs to be done and whether we do it for short term economic reasons or long-term environmental reasons kind of doesn't matter so, you know, there's a lot of support out there publicly (indistinct)...

TONY JONES: Let's go to Anna Rose on this and I mean did you feel that light bulb moment slightly dimming as Nick Minchin started talking about the economics of doing these things?

ANNA ROSE: It makes economic sense to act on climate change. In fact, to not act on climate change, to delay, is the worst thing that we could do to our economy. We had Sir Nicholas Stern in the UK doing a report about the global economic impact and he said that the impact of climate change would be the same as both world wars and the depression at the same time. Do we want to be doing that to our economy? I don't think so and then you bring in the health impacts. You've got the Australian Medical Association saying that climate change is a real and imminent threat to the health of Australians. The impact on our agriculture - I come from a farming family. You look at what's happening to the Murray-Darling Basin, the projections of agricultural decline between 92 and 97% by the end of the century, all of these things will be extremely harmful to our economy and our way of life.

REBECCA HUNTLEY: And I think that's another thing that - you know, I remember we did a group a couple of years ago and one of the guys in that group said if we don't do anything about the environment, Australia will be a third world country and 15 years ago - I go back and look at our research. It's 35 years old. Somebody said, "If we do do something about the environment, we'll be a third world country." So, actually, we've now changed our view that actually to be - not only to do something about the environment but also to be at the forefront of innovation about the environment is crucial for jobs in the new century. But I think the one thing that I'd say, Anna, and I think one of the difficulties and, I mean, Nick said this in the documentary, some of these scenes of catastrophe about what's going to happen in the future, is one of the things that gets people, even who believe in climate change, backing away a little bit from the environment movement. Even if those projections are true, it's a little bit - it feels to people a little bit like, you know, those people who wear those sandwich boards saying the end of the world is nigh. If we're going to say - you know, they are concerned about it. They believe it's going to affect them in their lifetime, certainly in their children

and their grandchildren's lifetime, but these kind of apocalyptic views about the future, I think one of the things I would like the environment movement to do is tone that down when you're talking to the majority of people who kind of think climate change is happening, what's my role in it and where's it going to go.

TONY JONES: We've got a question that actually reflects that. It's from Gordon Hinds in the audience.

### **PSYCHOLOGY OF CHANGING 00:17:23**

**GORDON HINDS:** Thank you, Tony. It's probably to the panel but to Nick mainly. Are we too wedded to our lifestyle to embrace change? And is it possible that persuading people that our lifestyle is not sustainable is akin to convincing people that smoking will harm - young people with smoking will harm them in their old age?

TONY JONES: Nick Minchin?

NICK MINCHIN: Well, wedded to our lifestyle is a fairly loaded remark. I mean I think it's fantastic that Australian Governments of both persuasions have produced one of the most prosperous nations on earth and I think we should all aspire as people in public life to produce the maximum level of sustainable prosperity that we can. I suppose what you're asking is: is that sustainable? And that does actually go to this scientific question because we, as I said before, are blessed with hundreds of years of coal and gas resources. We're discovering new sources of gas every day. This whole coal seam gas is opening up enormous new horizons. So, you know, from my point of view I think our lifestyle in terms of modern Australia is perfectly sustainable and so but that doesn't negate the point I was previously making that at some point there is going to be a transition. I mean I actually think nuclear should be discussed in this debate as well as a transitional fuel. So I think we can sustain our lifestyles.

**GORDON HINDS:** This is about making - if people have got an issue with, you know, is this going to impact or is it not going to impact, which is the point of the documentary, I guess you guys were both representative of different polars, then isn't it akin to sort of also that question mark about when you try and tell a 14 year old not to smoke because they'll get cancer when they're 65? I mean there is a sort of - there's an analogy there that is that...

TONY JONES: The smoking analogy mightn't work quite so well with Nick Minchin. He's against public campaigns against smoking, I think.

NICK MINCHIN: Well, hang on a minute. I've never smoked.

**GORDON HINDS:** No, I'm saying the reality of what you're trying to achieve, you know...

NICK MINCHIN: That's a crazy analogy, I'm sorry, in my view but...

**GORDON HINDS: Why is it crazy?**

NICK MINCHIN: Well, I don't get it. I mean that's a personal health...

**GORDON HINDS: I don't think it's crazy, Nick.**

NICK MINCHIN: I think there's enough evidence - you know, it's a question of evidence. There is enough evidence that smoking is bad for your health. I've never smoked...

**GORDON HINDS: No, I mean like when you're 14 you say to somebody...**

NICK MINCHIN: ...and I discourage my children from smoking but...

**GORDON HINDS: ...when you're going to be 60...**

TONY JONES: Okay. All right. All right. I think we won't spend too much time on the analogy.

NICK MINCHIN: No, I don't get it.

TONY JONES: I would like to hear from Megan Clark though. Does Australia need to change and have a more sustainable - do we need a more sustainable country and particularly our energy use?

MEGAN CLARK: Well, I think it's a much broader issue than just the climate. We're looking at how do we live in a world where the resources themselves are going to be restricted on a number of fronts? You know, we know in the next 60 years we have to produce as much food as we've ever produced in human history. We are also looking at our water resources so this is a much broader issue but when you're trying to get positive change, positive impact from science and technology, it really helps if what you're offering is better than what you have so I can maintain a prosperous lifestyle and that walks out the door. So, for example, when we had to address the ozone issue with CFCs, we had recognition, observation of the issue. We had recognition from the public and everyone learnt about what on earth ozone was. We then had sort of policy and guidelines. But what really happened with the change was the minute that refrigerators and new coolers were produced that were better than what we had, that were more efficient and cheaper and easier. Then that change was very easy and I think that's the challenge.

TONY JONES: So very briefly, is it CSIRO's view that climate change is forcing serious change on our economy, on our energy use patterns and so on?

MEGAN CLARK: I think the whole issue of operating in a world where our resources are going to be restricted is something that we all have to come to grips with. Certainly from CSIRO's point of view we're working across a number of fronts and particularly working on how you have pathways to a future that we can all accept because it's only when you

get a pathway to the future that we agree on that we'll start going there.

TONY JONES: Anna Rose?

ANNA ROSE: Completely agree with Megan. We have the opportunity in our generation to - everyone alive today to create a really bright future for Australia, to harness our renewable energy resources, to build new innovative industries, to create new jobs and to get our carbon emissions down. Now, one thing that's been discussed is the time frame in which we do it and that is key because we have the International Energy Agency this is a very conservative international body - saying we've already used up 80% of the emissions budget that would keep the world under two degrees of global warming. Now, every mum and dad out there who does grocery shopping every week knows that when you've used up 80% of your budget you don't keep spending. You start saving and that's what we've got to start doing. We've got to start saving energy. We need to the infrastructure in place so that we can move to that low carbon economy and according to the IEA we have to do it before 2017 globally.

TONY JONES: Okay. All right. Let's go to Clive Palmer, who is shaking his head, and I'll bring you back...

CLIVE PALMER: Well, look, you know...

TONY JONES: The question was: are we too wedded to our lifestyle to embrace change? You may like to suggest we don't need to change, I don't know.

CLIVE PALMER: Well, certainly people have got needs that have got to be met, you know. The Chinese Government, I've just signed an agreement for \$40 billion in coal sales to China so they're pretty happy with that. That's going to employ 10,000 Australians. You want to put all those people out of jobs? You want to have their families so they can't buy presents for their kids at Christmas? That's what we're talking about, you know, and that's the reality of it. That's the reality of it and that's why you'll see that the Federal Government will be thrown out at the next election because Australians want jobs. They want some prosperity and that's the simple facts of life. You can talk about what may happen in the future. I agree with the whole panel. We've got to do all we can to make sure we've got a better energy source in the future but it's got to be cost competitive. When it is cost competitive, if it's developed by industry, you don't have to have these arguments, it will happen. I'll invest in solar panels tomorrow if it's cheaper than digging up coal and everyone will. It's all economically-based and 20 million Australians, you've got to be really joking to think, you know, change the whole globe with our emissions. If you look at how much our emissions are, they're so infinitesimal, they don't make any impact whatsoever.

REBECCA HUNTLEY: Look, I've got to jump in here because I think that the question the man was saying goes to the extent to which people are prepared to sacrifice now for something of benefit in the future and it's very easy for people like Clive to kind of present a commitment to climate change being about you have to turn your television off now. He said before that I had to throw my husband out of bed if I really cared about

climate change.

CLIVE PALMER: Only if he's got electric socks.

REBECCA HUNTLEY: Only if he's got electric socks. And so there is this kind of catastrophising, sometimes on both sides, that if you care about climate change you've got to kind of wear sackcloth, live in a humpy and kind of, you know, eat yoghurt for the rest of your life.

TONY JONES: There's nothing wrong with that.

REBECCA HUNTLEY: You can't have an iPad or any of that kind of stuff and I think that's...

ANNA ROSE: Environmentalists don't say that. That's a stereotype.

REBECCA HUNTLEY: No. No. No. I'm talking about that's what the anti-climate change people say.

CLIVE PALMER: I say that. I live in a sack.

REBECCA HUNTLEY: I'm saying that that's what the anti climate change people say...

CLIVE PALMER: I love it.

REBECCA HUNTLEY: ...we have to do if we care about climate change, kind of reverse civilisation. And it's scare tactics.

CLIVE PALMER: No, she says we've got to stop coal mining now. That's what she says. We've got to stop, reduce it...

REBECCA HUNTLEY: Does she say that?

CLIVE PALMER: She does.

ANNA ROSE: I say we need to...

CLIVE PALMER: You do, don't you, yeah?

ANNA ROSE: We need to transition as soon as possible towards a cleaner energy future.

CLIVE PALMER: By 2017, you say we've got to reduce it.

ANNA ROSE: Globally we need to have emissions stabilised and reduced.

CLIVE PALMER: No, 2017 in Australia.

ANNA ROSE: So, yes, we do need to move away from coal mining.

CLIVE PALMER: That's right. Our coal mine will be built by 2016 so we'll shut it down after one year and throw away \$8.5 billion of Chinese investment, 10,000 jobs (indistinct).

ANNA ROSE: Maybe you should build solar panels instead of that coal plant?

CLIVE PALMER: Well, our deputy chairman...

(APPLAUSE)

CLIVE PALMER: Okay. Our deputy chairman, his company is the largest manufacturer of solar panels in the world, so if you do your research you'll know that. He went to the University of New South Wales here and he's the largest manufacturer in the United States, manufacturing in China and exporting. So, look, we all care about the future. We all care about the air we breathe and the future that we've got but the reality of it is it's got to be economic and the demand has got to be there, then it will happen. Governments can't mandate it. You can't put people out of work. It's not going to be popular but if we make it cheap enough it will work and that's what the CSIRO is saying. That's what everyone says. It's a naïve debate otherwise.

TONY JONES: Okay. You've watching Q&A, the climate special. Some of our viewers may have answered the questionnaire on the I Can Change Your Mind About Climate website. It's based on the Yale survey that Anna and Nick did and in the last few weeks was completed more than 24,000 times. It's not a scientific survey. It uses self-selecting and they can actually fill it out more than once. So those at both ends of the scale, the alarmed and the dismissive, are overrepresented, while the unengaged, not surprisingly, didn't bother to fill it in. But the results do show polarised public debate and that's supported by the CSIRO's smaller but representative study of Australians in 2011, which found 45% of people believe climate change is just a natural phenomenon while 43% believe it's caused by human activity. Our next question tonight comes from Suzy Randjelovic.

#### **CLIMATE OPINION 00:26:45**

**SUZY RANDJELOVIC: Thank you. Hi, there. The survey results, as you pointed out, on I Can Change Your Mind show that more than half polled are dismissive. Is this a direct result of how our political leaders have handled the climate change discussion?**

TONY JONES: Let's start with Nick Minchin?

NICK MINCHIN: Well, I share Rebecca's view and I think, if I may without being contradicted by Anna, say that I think that's one of the things Anna perhaps got out of this exercise was that the alarmism and hysteria that some people have brought to this debate from the warmest point of view has been counterproductive and, I mean, I'm just

interested in James Lovelock, you know, whose one of the significant green scientist around the world. He's making that point also that alarmism, when it is not substantiated by the evidence, just turns people off and Rebecca is finding that in her work. And that's why I was - I'd like to think that as part of this exercise and as the debate goes on we take the heat out of this, we do talk more rationally and calmly to each other and I do think, to the extent that some politicians have hyped this, as have some scientists, I think that's been counterproductive and cause the division.

TONY JONES: You're talked in the documentary about the debate being polarised. Is it hyped on both sides? Would you accept that?

NICK MINCHIN: Yes. Look, you know, I think that would be churlish of me not to say that. But I think the guilt, I must say, lies first and foremost with those who've said the world is going to end tomorrow. You know the sack and cheesecloth stuff.

REBECCA HUNTLEY: Oh, no, Nick, I don't think - I don't know if that's right.

NICK MINCHIN: That has lead to - that leads others to respond and say what a lot of nonsense. Nothing's happening. You know, let's just life go on. So, it's chicken and egg.

TONY JONES: Before we go further on that, I just want to hear Rebecca Huntley on this survey. You have had a look at the survey results of the 24,000 people.

REBECCA HUNTLEY: Yeah.

TONY JONES: So what's your thoughts on the survey?

REBECCA HUNTLEY: Well, it's not a survey. It's not real research. You couldn't call it a survey. I mean the only thing that it's evidence of is that this debate seems to attract.

CLIVE PALMER: It's a lobby group.

REBECCA HUNTLEY: No, it seems to attract tiny percentages of the population who are either who this is their central ideological question and we consistently find in the quality of research we do and the quantity of research we do that the majority of Australians think that climate change is happening but they're divided in many ways about the extent to which humans are involved. But more important than divided about why it's happening, they're divided about what we need to do, what our role should be as individuals, the Government, the international community and that's really where the conversation has to be, not at those extreme ends of the spectrum. And I think this is, you know, you could, you know, line your kitty litter tray with this piece of research.

TONY JONES: Incidentally, the questioner was asking the question whether politicians are driving the survey results.

REBECCA HUNTLEY: Oh, yeah. Look, I think...

TONY JONES: Political leaders, I think she said.

REBECCA HUNTLEY: I think that's part of it. I mean people look at the climate change debate and they see, you know, people screaming at each other on both sides and placards and all the rest of it. And remember we find that Australian voters are relatively mild-mannered. They don't like that kind of behaviour. They're turned off by it on both sides and I don't think it's fair, Nick, to just say it's the environmental movement that's been alarmist. I think it's been on both levels.

NICK MINCHIN: No, I acknowledge that it's both sides.

REBECCA HUNTLEY: I think that one of the things that there has been a level of disillusionment with the government response to climate change and some confusion. Why do we have a carbon tax when we could have had an ETS? So that has taken, I think, some of the focus and interest off it so it does - definitely the political reaction shapes public opinion about it but I don't think it's only factor.

TONY JONES: Just briefly, Clive Palmer, on this issue, if you wouldn't mind, and just bear in mind this...

CLIVE PALMER: I went to sleep there, Tony.

TONY JONES: Well, both sides of politics have the same target. Both sides of politics believe climate change is real, human induced global warming is causing climate change, both sides of politics believe that. You...

CLIVE PALMER: Well, I don't believe it. I mean I don't believe any of it. I think it's all about restricting our trade. I think it's about having these issues for the...

REBECCA HUNTLEY: Is that a CIA plot?

CLIVE PALMER: Well...

REBECCA HUNTLEY: CIA plot, Clive?

CLIVE PALMER: Well, most likely, but all I'm saying about it is we've got the developed world telling the undeveloped world they can't have what they've got, that they can't have a lifestyle the same as them and that's wrong. You know, I think that's wrong because we've got to compare about all people regardless of where they live.

TONY JONES: Okay, Anna Rose is shaking her head on that point.

ANNA ROSE: That's ridiculous. The people who are suffering the most right now from the impacts of climate change are people in less developed countries who are feeling the impacts of sea level rise, of extreme weather events and they don't have the resources that we have in Australia to cope with those kinds of impacts. So to pretend that you care about people in India yet totally ignore the suffering...

REBECCA HUNTLEY: This is the thing. If climate change is real - if climate change is real, Clive is going to build himself a massive biosphere and he'll just live in the biosphere and he'll be fine. It's all the rest of us that are in trouble.

#### MULTIPLE SPEAKERS TALK AT ONCE

TONY JONES: I'm going to interrupt all of you because we can continue this discussion but we can refocus it. The media is often mentioned as cause as well and we have a video question from Keith Martin Smith in Ridgeway, Tasmania.

#### **MEDIA / BALANCE FALLACY 00:31:48**

**KEITH MARTIN-SMITH: Does treatment of climate change in the media suffered from the balance fallacy: the assumption that all points of view are equally valid? Given that the majority of experts think that climate change is real and anthropogenic, isn't it time the media stopped giving equal air time to the sceptics?**

TONY JONES: Megan Clark?

MEGAN CLARK: I think this is a very complex issue and it's one of the most complex issues we have faced as a humanity and we know that if - with any major issue we certainly start with the observations. Then there's public and that often comes from the scientific community. Then there's awareness of those observations and then there's generally a major challenge phase before we move to action and policy. So I think these issues, if we're going to come to grips with them, genuinely do need an honest debate on both sides and what happens, of course, during the challenge phase was actually what happened in the documentary, is you go back to the observations again. Just remind us what we're seeing. It's one of the reasons why CSIRO, with the Bureau of Meteorology, have made the decision that every two years on the same day we'll bring out the state of the nation's climate. Not what could happen, not what might happen but actually what has happened and just provide that information to the Australian...

TONY JONES: Well, give us a snap shot of what your report is telling the Government about climate change.

MEGAN CLARK: Well, we're telling the Australian people, Tony, because we have certainly had feedback that they want to hear. We're still, seeing since every decade since 1950, each decade warmer than the decade before, even with the two wettest years we had in 2010 and 2011, which were the two wettest years we've ever had on record. We're seeing fewer really cold days, decade after decade. We're also seeing changes in sea level, which are different around different parts of Australia but very consistent with what we're seeing. So we're seeing very consistent trends, particularly in the temperature, and we simply report that. We'll do that two years. We've made the decision to do it on exactly the same day every two years so that it's something that we report regularly. Our belief is that, you know, a decade, maybe even two decades of sharing this information

with the Australian people, I think, starts to build trust and provide information that the Australian people are desperately looking for.

TONY JONES: Okay, well, let's hear from Nick Minchin. He's obviously looked at this research. CSIRO is the main scientific body advising Government on this. Do you accept what they're saying?

NICK MINCHIN: Well, can I just come back to the question, Tony?

TONY JONES: You can do both, yes.

NICK MINCHIN: Sorry, that's normally your line I know, but the question was the balance fallacy and I think one of the really disappointing aspects of this issue is that too many warmists simply want to shut down the debate and pretend that nobody has a contrary point of view and not let anybody like me or Clive or anyone else here have a say.

TONY JONES: I'd like to bring you to this point. You were the Minister for Science.

NICK MINCHIN: Yes, indeed.

TONY JONES: CSIRO is the main body advising the Minister for Science. You've just heard their assessment. Do you accept it?

NICK MINCHIN: And when I was the Minister for Science, the head of Australia's National Centre, Bill Kininmonth, was very much of the view that human beings are not driving global warming. So there is conflicting advice to political people like me when I was in office. The fact is, and even Phil Jones from the you know, the Climate Research Unit at East Anglia, admits that effectively there's been no rise in average global temperature since 1998.

ANNA ROSE: That's not true.

NICK MINCHIN: We're now approaching...

ANNA ROSE: 2010 and (indistinct)...

NICK MINCHIN: Phil Jones admits it. I don't know why you keep saying that. Phil Jones accepts it.

ANNA ROSE: Look at the temperature record, Nick.

NICK MINCHIN: James Lovelock is in here saying it. Basically we've had a plateauing of temperature rise. I mean we are in a warming phase. The world is either warming or cooling. It never stops doing nothing. It's either warming or cooling. We've had a warming phase since the end of the little ice age, 150 years ago. In terms of global average temperature it peaked 1998 and it is effectively stable now, despite the increase

in CO2. So there is a major problem with the warmist argument because we have had rising CO2 but we haven't had the commensurate rise in temperature that the IPCC predicted.

ANNA ROSE: That's just not true, Nick.

TONY JONES: Can I actually go to - we actually have among the experts in the audience, we've got a climate scientist. We've got Matthew England, who is the Joint Director of Climate Change Research and Professor of Ocean Physics, the University of New South Wales. So we'll just get a microphone to you over here.

MATTHEW ENGLAND: I am miced up, I think. I miced up, I think.

TONY JONES: You're miced up. I'm so sorry.

MATTHEW ENGLAND: What Nick just said is actually not true. The IPCC projections of 1990 have borne out very accurately the projections now 22 years old and the temperature record that we have does bounce around from year to year but that decade by decade progression of warming that Megan just mentioned has occurred. We can go back further in time than that. Jim Hanson had projections in the 1970s that have played out and we can actually go back through the last century of science and see there's been a gradual progression of scientific knowledge that's built up to certainty about some of these issues.

TONY JONES: Okay, thanks for and I'm going to go to a video question on this subject. It's from Michael Wrathall in Seaforth New South Wales

**CSIRO RESPECT 00:37:10**

MICHAEL WRATHALL: Dr Clark, the CSIRO's position on human induced climate change is clear, however the organisation no longer commands the unchallenged respect within our political and public debates in this country. Why is Australia no longer listening to you and what can be done about it?

TONY JONES: Megan Clark?

MEGAN CLARK: Well, first of all, both national and state assessment of the population in Australia says that CSIRO is the most trusted brand in science and technology and that's a most recent surveys, so just to correct there. But the question is a broader question.

TONY JONES: Except that half the people in Australia seem to have a different view or at least half the people who answered our survey, that's for sure.

MEGAN CLARK: But the question here is has the scientific...

TONY JONES: And half the people who answered your survey, now that I think about it.

MEGAN CLARK: But has the scientific community done enough to share their information? And I would be the first to admit that I think the scientific community has a long way to go to be able to represent both the risks and the opportunities that we see and I think we could do a much better job. The scientific community has been used to talking to the scientific community. As Rebecca outlined, there's a long way to go to be able to speak, I think, clearly and simply across a much broader spectrum. But let's be clear, the evidence is compelling and the scientific community must also shift not just from talking about the observations but we are part of the solution. Our future will be defined by the science and technology that we're working on now and so our scientists spending more time both on the solutions that we will all embrace in the future, because they really represent a better way to live, and the sensible pathways that will get us there and preserve, you know, our prosperity and our competitors in a global scene.

TONY JONES: I'd just like to hear from Rebecca Huntley. Why do you think that it is that the CSIRO's own survey shows that half the people don't believe seem to believe in the science?

REBECCA HUNTLEY: I think it goes back to people's understanding of science more broadly, which as any research that shows in Australia isn't great and, in fact, the research that we released this week showed that only about 50% of the people we polled felt they could understand the scientific reasons behind climate change and of those people who said they could, they nominated things that haven't got much to do with climate change like litter. So I think that we're coming from a low knowledge basis and that's why often I think when the debate about climate change becomes about these kind of fine debates within the scientific community about data, you lose people and so in the end they fall back to some basic ideological or value based systems or personality based systems. And when you did that when the two of you did that survey with the Yale guy, he wasn't testing your understanding of the science, he was testing those broader value sets so it's difficult. I mean the CSIRO still is a very trusted organisation but broadly what scientists are telling us about this complex and in some ways scary issue, I think it's quite natural for people to say I don't really want to have to believe that because it is scary for some people.

TONY JONES: Just before I move onto our next question, and we do have a question, Clive, hold your horses, because it's one you will want to answer.

CLIVE PALMER: Well, good.

TONY JONES: We've got a question - we've actually got in the audience - we were talking about the psychology of the way people think. We've got Ben Newell, the Associated Professor of Psychology, University of New South Wales, also the co-author of a book Straight Choices: the Psychology of Decision-making. Let's hear from Ben.

**BEN NEWELL: I would agree with Rebecca that part of the problem here is that people do find it difficult to understand some of the science and so you have to then rely on your**

own experience and I thought it was very telling in the documentary. Anna's uncle, Geoff, was someone who experienced for himself changes in what was going on in the climate and he could see because he had that affinity with the land. Most of us don't have that so most of us have to rely on personal experience, which is our experience of the weather, not of the climate and so we make judgments on a day to day basis and research shows that you ask people on a cold day do they believe in global warming, they believe it less than if you ask them on a hot day. So we now that, you know, our beliefs are very labile.

TONY JONES: And what about the fact that it's been talked about by a number of our panellists, which is the fear aspect? How do people respond psychologically when they're told the world is coming to an end?

BEN NEWELL: I think it's a very important point that Anthony Leiserowitz brought up that that doom and gloom, that fear is not an emotion that can support action for a long time and that people talk about having a finite pool of worry so you can worry about a certain number of things but not too many more and I think one of the reasons why climate change came off the agenda, especially in the US over the last few years, is because the economy crash and suddenly the economy was the thing that people worried about and climate change was too far off the list and so...

TONY JONES: So let's go to Anna Rose on that briefly and then we'll go back to the floor for other questions but I'd like to hear your views on that and whether the environmental movement as a whole has something to answer for here?

ANNA ROSE: Well, there's a difference between alarmism and facts that are true but make people uncomfortable or alarmed. So the things that we're hearing from scientists often are quite confronting because we're talking about serious changes to our economy, to our health, to our agriculture, if we don't act on climate change. But back to the question as to why there is some distrust in the community or their unsure about the science, let's not forget that we have had a concerted campaign over the past decade from vested interests who are opposed to cutting carbon pollution and, in fact, every single person that Nick took me to meet except one had affiliations or was receiving funding from the Heartland Institute. Now, this is a conservative, US-based think tank.

CLIVE PALMER: Evil body, yeah.

ANNA ROSE: It gets money from Exxon Mobil, from oil companies, from big tobacco and from corporations who are opposed to any kind of regulation.

CLIVE PALMER: From the Rockefellers.

ANNA ROSE: So I think it's actually in the face of this campaign to discredit scientist, I think it says a lot about Australians' commonsense that actually according to the survey that came out today, 90% of them do still accept that climate change is happening and that it's at least partially caused by humans.

TONY JONES: Let's go to another huge issue that bothers a lot of people. Our next questioner is Leon Ashby.

**CHINA 00:43:50**

LEON ASHBY: Okay. The Chinese community or the Chinese in China continually increase their carbon dioxide carbon dioxide emissions by Australia's total every four months. To put that in context, when Australia decreases its carbon dioxide by 5% in the next ten years as the carbon tax or the direct action plan promises, the Chinese will have nullified our efforts 3,600 times over as they will have nullify our 5% reduction every six days. Doesn't this amount to Australia's efforts being as effective as piddling into a blizzard?

TONY JONES: Well, start with Clive Palmer.

CLIVE PALMER: Exactly. I just think that's true. It is true and we know \$34 billion has been set aside for solar research in China but we also know that they're currently mining coal at the rate of 46% of the world mining rate and have only got 14% of the reserves because they want their people to have a better lifestyle and those basic drivers for people to be able to educate their children to live in decent houses to have a full belly, if you like, are much stronger. You know, it's very, very easy when you can eat, live in a great society like we've got in Australia, to have the luxury of having these sort of views and very difficult if you're fighting for survival, if you're living in a village and you're starving to death and you try to convince somebody then that they shouldn't have free access to power and a low cost for their family and for their futures. Very difficult.

TONY JONES: Anna Rose, do you want to answer that?

ANNA ROSE: I'm really glad you asked that question because sometimes you do hear it come up. Now, no one country can solve climate change on our own. It's just not possible. It's a global issue but imagine that you were a grandfather of a teenage boy who was trying who was taking up smoking and you, as a grandfather, your objective is to get this kid to not smoke because it's bad for their health. If you're sitting there puffing away on a cigarette saying, "Give up smoking. It's bad for your health," that teenager is not going to give up smoking. Australia is - in that example, we have the highest per capita emitter of the OECD countries. That makes us the grandfather and if we're going to say to the other countries in the world that you should not pollute as much, then we need to be showing some leadership ourselves before we can make that kind of statement.

TONY JONES: Nick Minchin? Well, Megan Clark wants to jump in there so we'll go to her first.

MEGAN CLARK: Yeah, we produce 1.3% of the world's emissions and so if this issue is going to be addressed globally it does need to have a global reaction. But, you know, I'm from the scientific community and we have 2% in Australia of the world's knowledge and yet that doesn't stop our scientists working, you know, day and night and staying up at

night to work on the science and technology that you will be reading about tomorrow in the newspaper. I think if you went to any one of our Olympians and said, "Look, there's no point in going to London because statistically you're only 2% of the world's population. You're just not going to win anything," I think they'd probably punch you in the nose. So we do have a responsibility to the globe but we also must recognise that we are 1.3% of the emissions and this will require a global solution and we're not the only ones. We're not the only ones that need to (indistinct).

TONY JONES: I'm just going to get straight in with another question. It comes from Brian Ford. Then we'll bring the rest of the panel in. Brian.

### **CARBON DIOXIDE 00:47:15**

**BRIAN FORD:** Hey. Hi, there. Just before I give you the question, I'd just like to thank the CSIRO and I sort of think, you know, like I go to the baker, you know I get bread from the baker. I, you know, go to the doctor, the doctor gives you penicillin or whatever you need to get well. And the scientists, they seem to work all the time at getting facts and studying microscopes, and the critics, the sceptics they just come out and say...

TONY JONES: We go to the audience not for anecdotes but the questions. So what's your question?

**BRIAN FORD:** Okay, well, the question here, this is actually from Nicola, who is in my family. She says: could someone tell me what percentage Australia produces in carbon compared with the total world output, including nature, like volcanos, cows and animals, et cetera? And can this percentage be compared to the percentage of manufacturing we are going to lose to other countries who don't pay a carbon tax?

TONY JONES: Okay, let's go to our scientist, Megan Clark?

MEGAN CLARK: Well, I can't answer the second part of that but, as I mentioned, you know, we produce 1.3% of the world's emissions and so I think that covers your first question. Your second part of it was a little complex.

**BRIAN FORD:** It is.

MEGAN CLARK: But I'm sure we've got a couple of scientist that will stay awake tonight to give you that answer.

TONY JONES: I think the argument was that - the essence of that question was that anthropogenic CO2 emission pales into insignificance by comparison to other things. I think that's what he was saying.

**BRIAN FORD:** About 3%.

TONY JONES: So what do you say to that?

MEGAN CLARK: Well, it's certainly - we know the contribution but we have also seen in the past that a small contribution to the atmosphere can make a big impact. We saw that with CFCs. We have also seen it with sulphur dioxide, where we saw the emissions of that causing the acid rain effects from the United States into Canada. We've also seen it as well with nitrous oxide so we know that...

TONY JONES: So I'll go back to a...

MEGAN CLARK: ...small amounts can...

TONY JONES: Well, I'll go back to...

MEGAN CLARK: ...affect the atmosphere significantly.

TONY JONES: Sorry, I'll go back to a climate scientist on this because it's a complex question.

MATTHEW ENGLAND: Thanks, Tony. I don't know where the 3% number is coming from because atmospheric carbon dioxide levels today are 40% higher than pre-industrial. And actually, we've emitted three times as much as we need to have to account for that 40%. We're very fortunate that the oceans have absorbed a third of our emissions to date and the land surface, the vegetation and so on has absorbed another third. So, in fact, we've more than done enough to make up for that 40% increase.

TONY JONES: Let's go to Clive Palmer on this because I heard you saying you had all the answers a moment ago.

ANNA ROSE: Clive the climate scientist.

CLIVE PALMER: Well, I'm not talking about science. I'm talking about opinion of people. I mean having a carbon tax in Australia is crazy.

TONY JONES: But I think we are talking about science here and the science of...

CLIVE PALMER: Well, we're talking about carbon in Australia. We know we're dealing with a global atmosphere. So we have a carbon tax here, all we're going to do is lose our industry, lose our jobs to another country who will reproduce them and have the same amount of carbon emissions. That's just crazy. That's what this is all about, exporting our jobs overseas and destroying industrial production in this country and I'm against that.

TONY JONES: Okay, but the question was - I'm just going to bring you to I'm interested in your belief, in fact, as to whether human induced CO<sub>2</sub> emissions is leading to global warming and, therefore, climate change?

CLIVE PALMER: Well, I think there's no doubt about the fact that human contributions

even a small change in the area is very, very significant. You know but I don't believe it's leading to global warming. That's what my personal view is, right. I do believe that there's been an increase in carbon emission. Any small change to the atmosphere can make a major difference but, you know, as I said before natural carbon dioxide is about 97% of the emissions. It's about 3% on an annual basis.

TONY JONES: All right. Once again I want to hear the scientists talking to the miner here so.

MATTHEW ENGLAND: It's a confusion strategy actually by some of the folks trying to derail the science...

CLIVE PALMER: Some of the scientists.

MATTHEW ENGLAND: We actually heard the observatory head there talk about the biosphere, you know, respiring and basically breathing out carbon dioxide during the winter and then sucking it down during the summer. So this is a massive cycle of carbon dioxide in and out on a seasonal basis but we have raised atmospheric carbon dioxide by 40% since the industrial revolution and, like I said before, we've actually emitted three times as much as that 40%. I don't know where Clive is getting his numbers from but they're...

TONY JONES: Okay. I'm sorry to tell you, guys, we are running out of time. During the documentary you may have noticed that we asked viewers to vote on the question would you ever change your mind on climate change? The results are in. 4,730 people voted. 53% say, that, yes, they are open to changing their minds. 47% say, no, they wouldn't. Our next question comes from Phillip Bross.

### **CHANGING YOUR MIND 00:52:05**

PHILLIP BROSS: Okay, well, I'm very happy to - by the way it's a great forum today. It's really, really good. Part of my question has already been answered, which is tremendous, and that is that Nick and Anna both have changed their minds slightly during the program that we saw there, which is really good. But part of my question hasn't been answered and that's the question that relates to what are we going to do here in Australia that affects us on a day-to-day basis and that part of the question says that we've introduced new taxes, CO2 carbon taxes. Now, that is going to affect our way of living here. It's going to will increase the tax burden to the average family in Australia. So are we jumping the gun by bringing in a carbon tax here when we really haven't solved the debate yet? So that's my question to the panel.

TONY JONES: Anna Rose, we'll start with you?

ANNA ROSE: The carbon price is a very, very important first step for Australia because what it does is it starts to transition our economy away from one that's dependent on fossil fuels into one that is moving towards clean energy and it does this firstly by giving

polluters a reason to clean up their act, giving them an incentive because they have to pay a small price per tonne of pollution but, secondly, by using that revenue to put into a clean energy, so we have a \$10 billion fund, the Clean Energy Finance Corporation, and that's a very, very important first step. Now if you're suggesting that we should wait and just delay, that is not a responsible course of action. When you look at the warnings from the scientists, it would be an irresponsible thing to not take action and to not introduce something like a carbon price.

**PHILLIP BROSS:** But my questions really - sorry to cut in then Anna but my question really relates to the families in Australia, right? It relates to the issue of what effect does that carbon tax have on the already tax-burdened families in Australia because things after July are going to go up in price exponentially and that is going to have an effect on our family way of living.

**TONY JONES:** Okay, I'd like to hear from Rebecca Huntley. You're speaking to Australian families.

**REBECCA HUNTLEY:** Yeah.

**TONY JONES:** Now, is that reflected in that question that concern?

**ANNA ROSE:** Look, there is an anticipation that prices will go up but at the same time there's very little understanding about the compensation package. The carbon tax is unpopular. Tell me the last time a tax was popular amongst people.

**NICK MINCHIN:** GST.

**REBECCA HUNTLEY:** And secondly, a tax that's associated with something associated with a Government that's unpopular and also with some confusion about whether the tax will really either help the environment or create the kinds of jobs that we need in a new energy economy. So there is concern about it but I'll be interested to see whether the concern is there in 18 months time and in two years time. It will really depend on how people feel about the kinds of price increases that we've seen. There's assumptions, for example, that the carbon tax will apply to fuel. We've even had people that say the Mr Whippy van will charge us more for our ice cream because of the carbon tax. So there's a concern because there's a confusion about its impact on people.

**TONY JONES:** Clive Palmer has already said it's going to be the end of Christmas presents for miners.

**CLIVE PALMER:** Well, first of all we need the tax because Julia needs it. She can't balance the budget. It's got nothing to do with the environment at all. That's the reality of it, right? And the second answer, in 18 months time you won't have to worry because Tony Abbott will be Prime Minister and he's going to abolish it. Hear, hear!

**TONY JONES:** All right, I am sorry, we are just about out of time. We can fit in one more question. It comes from Mike Peppou.

MIKE PEPOU: Climate change appears to be a political poison with Turnbull, Rudd and likely Gillard its first victims.

CLIVE PALMER: Hear, hear!

MIKE PEPOU: Is our democracy actually capable of tackling such a fundamental issue?

TONY JONES: Okay, we'll go right across the panel on this, in brief answers. Megan?

MEGAN CLARK: I think the important thing with democracy is that we need to be able to envisage where we're head heading and we need to have a pathway that people can accept and see their own livelihoods in that pathway. So it's not just about, look, here is something that's a concern and the observations and we really need to move very quickly to this future. If we don't define a sensible pathway, if we don't preserve our prosperity, if we don't have new innovative industries, then we're not going to be able to navigate through that pathway and that's something that we work on, as well, with the community in Australia.

TONY JONES: Rebecca Huntley?

REBECCA HUNTLEY: Yes, I think we can do it, yeah. I know we've got one minute. I just saw the sign. I just thought I'd say, yes I this we can do it.

TONY JONES: Yeah, well, I want Clive first (indistinct).

CLIVE PALMER: Well, first of all, democracy means about accepting the other person's point of view if it's supported by the majority and the majority of Australians, we have to accept whatever they come up with in the elections that we have in a democratic society. It doesn't mean having your way all the time, even if you want climate change or carbon taxes or you're against them. It means accepting the other guy's point of view and all Australians should do that. I certainly know if the majority of people vote for the carbon tax I will accept it. Thank you.

TONY JONES: Anna Rose?

ANNA ROSE: You can bring in big reforms and still have vested interests saying that they're a problem and it being unpopular. You know we gave the women the right to vote in this country when a lot of men were opposed to it. We brought in gun control laws where people were opposed to it. We even federated Australia, all the states into one country, when a lot of people were opposed to it. We need politicians - political leaders on all sides to have the guts to stand up for what is right and not just what is popular politically in the short-term. We can achieve it in a democracy but only if people like us, who accept the science, make our voices heard.

TONY JONES: Okay, Nick Minchin?

NICK MINCHIN: Yes, of course democracy can handle it and one of the scary things from some of the warmists like Clive Hamilton is they insist that we must suspend democracy in order to deal with this issue. That's pretty scary stuff. But it does a great disservice to democracy when political leaders break their promises on issues like this.

CLIVE PALMER: That's right. Hear, hear!

TONY JONES: Well, I'm sorry to say that is all we have time for tonight. Please thank our panel: Rebecca Huntley, Clive Palmer, Anna Rose, Nick Minchin, and Megan Clark. Thank you for joining this special edition of Q&A tonight. We'll be back on Monday live from Melbourne's manufacturing and multicultural melting pot Dandenong. Joining the Q&A panel there will be Cabinet Secretary and local Labor MP Mark Dreyfus; Shadow Industry Minister Sophie Mirabella; the President of the ACTU, Ged Kearney; former Howard Minister Peter Reith; Sudanese youth worker Victor Victor; and actor and comedian Diana Nguyen. So we'll see you again next Monday for the regular Q&A. Until then, goodnight.