



COMMONWEALTH OF AUSTRALIA

Proof Committee Hansard

SENATE

ECONOMICS LEGISLATION COMMITTEE

Estimates

(Public)

THURSDAY, 1 JUNE 2023

CANBERRA

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ECONOMICS LEGISLATION COMMITTEE

Thursday, 1 June 2023

Members in attendance: Senators Allman-Payne, Antic, Bragg, Cox [by video link], Davey, McDonald, Duniam, Green, Grogan, Hughes, Hume, O'Neill, Barbara Pocock, David Pocock, Polley, Rennick, Roberts, Stewart, Shoebridge, Urquhart, Walsh and Whish-Wilson [by video link]

INDUSTRY, SCIENCE AND RESOURCES PORTFOLIO

In Attendance

Senator Ayres, Assistant Minister for Trade, Assistant Minister for Manufacturing

Department of Industry, Science and Resources

Ms Meghan Quinn, Secretary

Corporate

Mr Neal Mason, Deputy Secretary

Ms Jane Urquhart, Deputy Secretary

Ms Michelle Dowdell, Head of Division

Ms Crystal Ossolinski, General Manager, Resources and Energy Insights

Ms Kate Penney, General Manager, Economic and Industry Analysis

Mr David Luchetti, Head of Division

Ms Rebecca Lannen, General Manager, Entrepreneurs Programme

Mr Gavin McCosker, Chief Finance Officer

Mrs Erin Cockram, General Manager, Financial and Shared Services

Ms Rebecca Lee, Chief Information Officer

Ms Leanne Yannopoulos, Chief Operating Officer

Ms Deborah Miliszewski, General Counsel

Mrs Samantha Chard, Head of Division

Ms Vivianne Johnson, Head of Division

Ms Rebecca Kirkwood, General Manager, Ministerial and Executive Enabling

Ms Naomi Perdomo, General Manager, Whole of Government Policy and Priority Projects

Outcome 1: Support economic growth, productivity, and job creation for all Australians by investing in science, technology and commercialisation, growing innovative and competitive businesses, industries and regions, and supporting resources.

Program 1.1: Growing innovative and competitive businesses, industries and regions

Ms Julia Pickworth, Deputy Secretary

Ms Narelle Luchetti, Head of Division

Ms Rebecca Manen, General Manager, NRF Strategy

Ms Jocelyn Cooper, General Manager, NRF Priorities

Ms Deborah Anton, Head of Division

Ms Donna Looney, Head of Division

Mr John Krbaleski, General Manager, Industry Participation and Major Project Facilitation

Mr Tim Wong, General Manager, Office of Supply Chain Resilience

Mr Rodney Harris, Manager, Office of Supply Chain Resilience

Dr Bradley Armstrong PSM, Commissioner

Ms Jessica Casben, Deputy Commissioner, Strategy and Legal

Ms Isolde Lueckenhausen, Deputy Commissioner, Investigations

Mr Gary Rake, Chief Executive Officer

Mr Nick Purtell, Head of Division, Commercialisation

Mr Enrico Palermo, Head of Agency

Ms Dara Williams, Deputy Head of Agency

Commonwealth Scientific and Industrial Research Organisation

Dr Larry Marshall, Chief Executive

Mr Tom Munyard, Chief Operating Officer

Dr Peter Mayfield, Executive Director, Environment, Energy and Resources

Professor Elanor Huntington, Executive Director, Digital, National Facilities and Collections

Ms Kirsten Rose, Executive Director, Future Industries

Dr Jack Steele, Director, Science Impact and Policy

Dr Damian Barrett, Research Director, Energy Resources; and Director, Gas Industry Social and Environmental Research Alliance

Mr Paul Graham, Principal Research Scientist, Energy Economics

Outcome 1

Program 1.2: Investing in science, technology, and commercialisation

Mr Duncan McIntyre, Deputy Secretary

Dr Bruce Warrington, Chief Executive Officer and Chief Metrologist

Ms Janean Richards, Head of Division

Mr Anthony McGregor, General Manager, Research and Collaboration

Ms Shanan Gillies, General Manager, Science Policy and Governance

Ms Michele Graham, General Manager, Science Policy and Governance

Ms Siobhan Campbell, General Manager, Science Policy and Governance

Ms Hayley Arbaut-Zaalen, General Manager, Science Strategy and Priorities Taskforce

Mr Anthony Murfett, Head of Division

Mr Daniel Quinn, General Manager

Ms Jacqueline Cooke, Acting General Manager

Ms Jo White, Director

Dr Bobby Cerini, General Manager, Science and Learning

Mr Steve Stirling, General Manager, Operations

Mr Nick Purtell, Head of Division, Commercialisation

Ms Tara Oliver, General Manager, Research and Development Tax Incentive

Ms Sandra Roussel, General Manager, Venture Capital and Entrepreneurship

Office of the Chief Scientist

Dr Cathy Foley AO PSM, Chief Scientist

Ms Paula Perrett, Executive Director, Office of the Chief Scientist

Outcome 1

Program 1.3: Supporting a strong resources sector

Ms Anthea Long, Head of Division

Mr Andrew Hutchinson, General Manager, Critical Minerals Office

Mr Matthew Crawshaw, General Manager, Mining Branch

Ms Casey Millward, General Manager, Resources Strategy Branch

Mr Robert Jeremenko, Head of Division

Ms Norelle Laucher, General Manager, Offshore Resources and Offshore Strategy

Mr Shane McWhinney, General Manager, Northern Endeavor

Mr Cliff Weeks, General Manager, Offshore Resources Branch

Mr David Lawrence, General Manager, Gas Branch

Mr Graeme Waters, General Manager, National Offshore Petroleum Titles Administrator

Mr William Tan, General Manager, Decommissioning Roadmap Taskforce

National Offshore Petroleum Safety and Environmental Management Authority

Ms Sue McCarrey PSM, Chief Executive Officer

Mr Cameron Grebe, Head of Division, Environment, Renewables and Decommissioning Division

Mr Derrick O'Keefe, Head of Division, Safety and Integrity

Outcome 1**Program 1.4: Nuclear Powered Submarine Program****Australian Radioactive Waste Agency**

Mr Sam Usher, Chief Executive Officer

Ms Jodie Lindsay, Chief Operating Officer

Australian Nuclear Science and Technology Organisation

Mr Shaun Jenkinson, Chief Executive Officer

Ms Emily Hodgson, Chief Financial Officer

Mr John Edge, Chief Operating Officer

Dr Miles Apperley, Group Executive, Nuclear Safety Security and Stewardship

Committee met at 09:01

CHAIR (Senator Walsh): I declare open this hearing of the Senate Economics Legislation Committee into the 2023-24 budget estimates. I begin by acknowledging the traditional custodians of the land on which we meet today and pay my respects to their elders past and present. I extend that respect to Aboriginal and Torres Strait Islander peoples here today. The committee has set 16 June 2023 as the date by which senators are to submit written questions on notice and 14 July 2023 as the date for the return of answers to questions taken on notice. The committee's proceedings today will begin with the Department of Industry, Science and Resources Corporate Group.

Under standing order 26, the committee must take all evidence in public session. This includes answers to questions on notice. I remind all witnesses that, in giving evidence to the committee, they are protected by parliamentary privilege. It is unlawful for anyone to threaten or disadvantage a witness on account of evidence given to a committee, and such action may be treated by the Senate as a contempt. It is also a contempt to give false or misleading evidence.

The Senate has endorsed the following test of relevance of questions at estimates hearings: any questions going to the operations or financial positions of the departments and agencies which are seeking funds in estimates are relevant questions for the purpose of estimates hearings. I remind officers that the Senate has resolved that there are no areas in connection with the expenditure of public funds where any person has a discretion to withhold details or explanations from the parliament or its committees unless the parliament has expressly provided otherwise. The Senate has resolved also that an officer of a department of the Commonwealth shall not be asked to give opinions on matters of policy and shall be given reasonable opportunity to refer questions asked of the officer to superior officers or to a minister. This resolution does not preclude questions asking for explanations of policies or factual questions about when and how policies were adopted. Witnesses are reminded of the Senate order specifying the process by which a claim of public interest immunity should be raised. I incorporate the public immunity statement into the *Hansard*.

The extract read as follows—

Public interest immunity claims

That the Senate—

(a) notes that ministers and officers have continued to refuse to provide information to Senate committees without properly raising claims of public interest immunity as required by past resolutions of the Senate;

(b) reaffirms the principles of past resolutions of the Senate by this order, to provide ministers and officers with guidance as to the proper process for raising public interest immunity claims and to consolidate those past resolutions of the Senate;

(c) orders that the following operate as an order of continuing effect:

(1) If:

(a) a Senate committee, or a senator in the course of proceedings of a committee, requests information or a document from a Commonwealth department or agency; and

(b) an officer of the department or agency to whom the request is directed believes that it may not be in the public interest to disclose the information or document to the committee, the officer shall state to the committee the ground on which the officer believes that it may not be in the public interest to disclose the information or document to the committee, and specify the harm to the public interest that could result from the disclosure of the information or document.

(2) If, after receiving the officer's statement under paragraph (1), the committee or the senator requests the officer to refer the question of the disclosure of the information or document to a responsible minister, the officer shall refer that question to the minister.

(3) If a minister, on a reference by an officer under paragraph (2), concludes that it would not be in the public interest to disclose the information or document to the committee, the minister shall provide to the committee a statement of the ground for that conclusion, specifying the harm to the public interest that could result from the disclosure of the information or document.

(4) A minister, in a statement under paragraph (3), shall indicate whether the harm to the public interest that could result from the disclosure of the information or document to the committee could result only from the publication of the information or document by the committee, or could result, equally or in part, from the disclosure of the information or document to the committee as in camera evidence.

(5) If, after considering a statement by a minister provided under paragraph (3), the committee concludes that the statement does not sufficiently justify the withholding of the information or document from the committee, the committee shall report the matter to the Senate.

(6) A decision by a committee not to report a matter to the Senate under paragraph (5) does not prevent a senator from raising the matter in the Senate in accordance with other procedures of the Senate.

(7) A statement that information or a document is not published, or is confidential, or consists of advice to, or internal deliberations of, government, in the absence of specification of the harm to the public interest that could result from the disclosure of the information or document, is not a statement that meets the requirements of paragraph (1) or (4).

(8) If a minister concludes that a statement under paragraph (3) should more appropriately be made by the head of an agency, by reason of the independence of that agency from ministerial direction or control, the minister shall inform the committee of that conclusion and the reason for that conclusion, and shall refer the matter to the head of the agency, who shall then be required to provide a statement in accordance with paragraph (3).

(d) requires the Procedure Committee to review the operation of this order and report to the Senate by 20 August 2009.

(13 May 2009 J.1941)

(Extract, Senate Standing Orders)

CHAIR: I remind all senators that, as we continue our work implementing the *Set the standard* report, as chair, I will ensure that proceedings are conducted in an orderly, respectful and courteous way. The committee has agreed to authorising all media outlets to record the proceedings of the public hearings, subject to the broadcasting resolutions in the standing orders and the following conditions: media entry is subject to not exceeding the maximum capacity of the room and social distancing; the committee or a witness may object to being recorded at any time, and the committee may require recording ceased; recording must not occur from behind the committee or between the committee and witnesses and must not otherwise interfere in proceedings; computer screens and documents belonging to senators, members and witnesses must not be recorded; flashes must not be used; and the directions of the committee secretariat must be followed at all times. An officer called to answer a question for the first time should state their full name and the capacity in which they appear.

Department of Industry, Science and Resources

[09:05]

CHAIR: I now welcome Senator the Hon. Tim Ayres, representing the Minister for Industry and Science. Good morning, Minister.

Senator Ayres: Good morning.

CHAIR: I also welcome the Secretary of the Department of Industry, Science and Resources, Ms Meghan Quinn. Good morning, Ms Quinn. I welcome officers of the department. Minister, I assume that you don't have an opening statement to give today.

Senator Ayres: That's right.

CHAIR: Ms Quinn, I've received an opening statement from you. It looks like you'd like to speak to it.

Ms Quinn: Yes, please. It's very short, but I would like to give you a highlight of the budget process.

CHAIR: Go ahead.

Ms Quinn: The Australian government's budget for 2023-24 reinforces the Department of Industry, Science and Resources as central to building a better future for all Australians through a productive, resilient and sustainable economy enriched by science and technology. The department is implementing measures to help diversify and transform Australian industry, boost sovereign capability, support the nation's scientific and technological capabilities and ensure a stronger resources sector.

Measures include funding to establish and operate the National Reconstruction Fund Corporation, a new Industry Growth Program to support small and medium enterprises and start-ups to commercialise, and investment in quantum and artificial intelligence to grow local capability and capacity. There are new measures to help support the whole-of-government priority to transition to net zero emissions while creating secure and well-

paying jobs. Measures include funding to develop a future gas strategy and international partnerships to develop critical minerals processing in Australia.

The department also continues its role in maintaining efficient and effective regulatory regimes across the areas of responsibilities. To support greater transparency of funding, new programs have been created for Commonwealth agencies that have received funding to support the nuclear powered submarine program. This is reported as program 1.4, Nuclear powered submarine program, for the Australian Radioactive Waste Agency, which is a division of the department, and as program 2 for the Australian Nuclear Science and Technology Organisation. Both of these entities are providing expert advice to the Department of Defence.

Finally, I wish to acknowledge that this will be Dr Larry Marshall's final budget estimates appearance as chief executive officer for CSIRO. I thank him for his leadership and dedicated service. Dr Marshall will leave a strong legacy, having established CSIRO's missions program, the CSIRO Innovation Fund and the national science accelerator and having overseen CSIRO's contribution to Australia's resilience during the COVID pandemic. Thank you for the opportunity to make those statements. I look forward to questions.

Senator HUGHES: Good morning, everyone. Minister Ayres, could you give us an idea, as a broad figure or the actual number, of how many board positions remain open across the Minister for Industry and Science's portfolio.

Senator Ayres: I don't have a figure close to hand. I can take that on notice, unless any of the officials at the table are able to assist.

Ms Quinn: I don't have a total number for you, but there are a few vacancies across some of the organisations.

Senator HUGHES: I want to come to three organisations in particular, so maybe you can take on notice the total for me. To save time, I'll go to the three that I'm particularly interested in. On the back of your thanks to Dr Marshall, how many board positions remain open at CSIRO?

Ms Quinn: There are currently two vacancies for the CSIRO board.

Senator HUGHES: How long have they been vacant?

Ms Quinn: I don't have that here, to be honest, in terms of the exact timing. I do know there's a process underway to fill those positions, but I can't tell you when the last person left.

Senator HUGHES: Can you update us as to where that process is up to?

Ms Quinn: Board appointments are a significant appointment under the *Cabinet Handbook*. The process is there's a scanning and an evaluation of the needs of the board, undertaken by both the board and the department. There's a coming together in terms of nominations of the possible pool of candidates, and there's discussion with the minister in terms of who he would like to take to his colleagues through cabinet.

Senator HUGHES: If you look at a corporate board they have people with a broad range of experience, whether it's a legal or finance or communications—or whatever—background, to bring that skill set to the board. Is that the part of the process you're talking about, and then it's publicly advertised? Or is it—

Ms Quinn: It's a bit of both, at the same time. It depends a bit on what process we go through for the appointments. For some there is an external agency brought in, an executive search agency, to support. Looking at the overall capability and skills on the board usually happens at the start, and then you can refine it through the process based on, sometimes, a search process or—

Senator HUGHES: An outstanding candidate.

Ms Quinn: a drawing together that can raise candidates, that you look at to see how they would complement the existing candidates. So, it is the same as you'd understand it from a private sector board, where you look at the competencies and capabilities, and the challenges facing the institution.

Senator HUGHES: Were these two CSIRO positions publicly advertised?

Ms Quinn: I don't believe so, but I could take that on notice. The government did recently appoint someone to the CSIRO board, Dr Alex—I've forgotten his last name. I can come back to you with the details.

Senator HUGHES: So, one's been appointed and there are two still two vacancies. Can you let us know: How long those two vacancies have been open? Whether or not they were publicly advertised? Has that progressed? Have potential appointees been interviewed?

Ms Quinn: We certainly have progressed to providing advice on possible appointees, and the minister is considering the information we have provided.

Senator HUGHES: I assume you interviewed them before you—

Ms Quinn: I'll have to check on that. We often talk to the people. Whether there's a formal interview process depends a bit on their expertise and background.

Senator HUGHES: But I'd assume you need to, at some stage, have an exchange with them, whether they were interested or not.

Ms Quinn: That's right.

Senator HUGHES: So there have been recommendations made by the department to the minister on both of these spots? Or just one?

Ms Quinn: On these vacancies we often do a rolling process where we provide more than just targeting two. We always have a bench strength, in a sense, for significant appointments.

Senator HUGHES: I appreciate you're not going to provide the names, but can you provide the dates that those recommendations were made? Similar conversation, Industry Innovation and Science Australia—how many board vacancies are there?

Ms Quinn: There are a few different committees under the IISA. There are quite a few vacancies on this. Although the formal number of people could be up to 15 on that committee, there's never been that many. So judging how many vacancies there are depends a bit on how many people the government of the day—

Senator HUGHES: How many have they got? We can go from there.

Ms Quinn: I do not have the numbers of how many there've got, here at the moment. I do know we're going through a process looking at up to four new candidates.

Senator HUGHES: Maybe you've got someone here who can help, who might be able to have a look at how many they've got.

Ms Pickworth: As of May 2023, we've got seven members on the IISA board, including an ex officio member.

Senator HUGHES: That's less than half of what it could be.

Ms Pickworth: The quorum's four members, and if we were to go to the maximum number allowed there could be a further eight, but as my colleague, the secretary, just mentioned, we've never gone to the full size.

Senator HUGHES: What's it normally at?

Ms Pickworth: We'll have somebody up here under outcome 1.1 who'll be able to go into the detail of how much it is historically.

Senator HUGHES: Yes, just as long as they don't say, 'Those question should have been asked in Corporate.' That seems to be a bit of a special!

Ms Pickworth: We've got some of that detail. My sense, and others can confirm this through the day, is it would normally be a couple more than that.

Senator HUGHES: Are those vacancies being advertised at the moment? Is there a process underway?

Ms Pickworth: There is a process underway.

Senator HUGHES: And what's that process?

Ms Pickworth: My understanding is that we didn't advertise those positions. Similar to what Ms Quinn was just saying, we are providing advice through on options around filling some further positions on the AASA board.

Senator HUGHES: I am interested, if there is no advertising, how do we know we are getting the best pool of people putting themselves forward rather than them just being, 'I know this person over here. Why don't we give them a call?' when there may be better people out there who may be interested that you are not aware of?

Ms Quinn: These are longstanding boards. The vacancies are known to the community of interested parties. So in that sense, if people are interested in the work of the committee and involved in the activities of the organisations, they would be aware of the vacancies.

Senator HUGHES: So how would they go about it? But what if they are not someone who the department knows, has a good relationship with? Some people have never thought of it before. Some people go through a very successful career and don't necessarily consider a board appointment when they would be very appropriate for it. If it was pointed out to them, how would they inject themselves into the process to be considered?

Ms Quinn: There are usually at least three different ways. The government has various processes where people who are interested in board positions in public life can provide their information. The Department of Finance does this. The APSC also collects information. We draw from that wider pool and look at those lists. That is where people can nominate themselves for consideration across different areas of interests.

Senator HUGHES: And is that publicly available?

Ms Quinn: When you submit your information, it is available to people in the system.

Senator HUGHES: No, but is there a portal where people go on which is publicly available for them to submit their details?

Ms Quinn: Yes, that's right.

Senator HUGHES: Is it hard to find? Because sometimes there are portals and there are portals. You have to know the 18 significant click sequences to get there.

Ms Quinn: Potentially. I haven't looked in recent years. I have directed people who I have engaged with through stakeholder engagements over the years to that portal. I remember checking a few years ago and it was perfectly easy to find at that stage, but I haven't looked in the last 12 months or so. That is one avenue for general invite.

The other avenue is the boards themselves. Particularly the chairs of the boards, as part of their obligations and functions to be able to think about renewal of the board and capability. So as they go about their work, including other existing committee members, they would interact with people and have conversations with people, including suggesting are they interested in taking up positions in the future. That information and intelligence are collected and included as part of the appointment process that. That is the work of the committees themselves.

Then there is the work of the department, where the department engages with stakeholders, lots of different people and we are always, as senior executives in the department, talking to people about their interests and considering people for information. That is us reaching out. If people are interested in appointments, we do get people approaching us in different ways in different forums and we do collect that information. We also use executive search firms, who draw on their networks and connections through time, and we also engage with the Australian Public Service Commission, which has a process as well of looking at talent. People approach them if they are interested in public opportunities. Advertising can draw out additional parties, and we do advertise from time to time. It depends a bit on when the last time things were advertised, how publicly known the issues are and things like that.

Senator HUGHES: The last one I wanted to get an update on was the Silicon Quantum Computing company.

Ms Quinn: The Commonwealth has one vacancy for a director as part of its arrangements with that company. It has been vacant since April 2021.

Senator HUGHES: Did you say April '21?

Ms Quinn: Yes.

Senator HUGHES: Where is that process up to now? Do you know if there has been any movement there? Again, has it been advertised? Do we have a shortlist of candidates? Has the department made recommendations to the minister?

Ms Quinn: We certainly have made recommendations for consideration.

Senator HUGHES: Can you take on notice, if you don't have it, what date any of those recommendations were made?

Ms Quinn: I don't have the date when the recommendations were made but I will take it on notice.

Senator HUGHES: If you can take it on notice, that will be great. I am happy to share the call.

Senator McDONALD: Secretary, no acreage has been released since the 2022 offshore petroleum exploration acreage releases as outlined in QON S1-10?

Ms Quinn: I'm not familiar with that. Our resources team will be here for 1.3, and they would have all the details about the most recent actions on acreage releases.

Senator McDONALD: Alright. So you won't have any advice on the roadmap, or anything like that? You will have to wait for the resources section to come?

Ms Quinn: It would be my preference, if possible, for the committee, to have my resources staff here who look after the resources component, to have the experts answer your questions.

Senator McDONALD: How many briefs have come through Minister King's office regarding gas policy, gas market intervention or similar since 1 June November 2022?

Ms Quinn: I don't have an exact number. I am happy to have it take it on notice, but it would be a significant number.

Senator McDONALD: This is a question that has been asked of every other portfolio as they have come before other committees I've been on this week. I would suggest your department officials follow the lines of questions for other portfolios because this has been a standard question. You are going to take that on notice, are you?

Ms Quinn: I am happy to take it on notice, yes.

Senator McDONALD: How long do you think? I would ask that you respond as quickly as you can. I have been frustrated by the length of time that questions on notice have taken, I assume, moving between the department and the minister's office, but hopefully it is not by the time we do estimates next time. Well, you are not going to know, but I will ask on notice: How many specifically have come through on the gas market interventions, price caps, mandatory code, energy price relief bill, et cetera?

Ms Quinn: I am happy to take it on notice.

Senator McDONALD: How many were for decision and how many were for noting? How many briefs have come through Minister Husic's office regarding gas policy, gas market intervention or similar since 1 June 2022? How many specifically have come through on the gas market interventions, price cap, mandatory code, energy price relief bill et cetera? And finally, can you break down what types of briefs they were action items for information or noting?

Ms Quinn: I am happy to take that on notice.

Senator McDONALD: How many functions, events or roundtables have Minister King and Minister Husic—separate lists—attended since 1 June 2022?

Ms Quinn: I don't have access to the ministers' diaries. We know when we are asked for a briefing for certain events, but I'm happy to take it on notice for the ministers to consider.

Senator McDONALD: Minister, could you take that question on notice then, please?

Senator Ayres: We will have a look at that and see what we can give you in conjunction with the department.

Senator McDONALD: I would ask that in addition to the lists of the two ministers, King and Husic, that there be a full breakdown on notice with the events—the attendees and the topics of those events—please. Could the department also provide a breakdown of the cost of each event, distinguishing between food and drink? These are the department-assisted events I'm specifically referring to.

Ms Quinn: I am happy to take on notice areas where we've provided the support.

Senator McDONALD: How many meetings have both Minister King and Minister Husic had with gas companies since 1 June 2022?

Ms Quinn: I am also happy to take that on notice.

Senator McDONALD: And if you could provide the names of the companies, the attendees for those meetings, please

Ms Quinn: Okay.

Senator McDONALD: How many meetings have both Minister King and Minister Husic had with resource companies since 1 June 2022, the names of the attendees, the companies, please? And how many meetings have both Minister King and Minister Husic had with critical minerals companies since 1 June 2022? Please provide the names of the companies and the attendees. I have a different block of questions if you want to share the call and come back to me.

CHAIR: Ms Quinn, just for the *Hansard*, I think you agreed to take all of those questions on notice at the end there?

Ms Quinn: Yes, I am happy to take those on notice and talk to the ministers. Some we will have information in the department; others will be the ministers' purview.

Senator DAVID POCOCK: I have some questions about the Chief Scientist and the role the department plays in supporting your office. My understanding is that, while the department hosts the Office of the Chief Scientist, the Chief Scientist and the Office of the Chief Scientist remain independent from government. Is that correct?

Ms Quinn: That's correct. The Chief Scientist provides advice across government and to others in the community. We do provide a secretarial support of departmental staff that support the Chief Scientist in undertaking her duties, but the Chief Scientist is independent of the department.

Senator DAVID POCOCK: I'm looking at the changes to the department's organisational structures. I believe there have been some changes relating to the Office of the Chief Scientist. Is that correct?

Ms Quinn: There have been some staffing changes. We have increased the seniority of the head of the secretariat for the Chief Scientist. That is a more senior public servant now than in the past. But the overall resources and the number of staff that are supporting the Chief Scientist are comparable to previously. But we have increased the seniority of the head of the secretariat.

Senator DAVID POCOCK: It appears on the org chart that the Office of the Chief Scientist has been moved to report to the science head of division, Janean Richards, rather than being one of the other portfolio bodies, as in previous years.

Ms Quinn: There is no change in the way the staff that work for the Chief Scientist operate. They've always been public servants, and, for administrative purposes, they've always been treated as part of a division within the department, in order to facilitate their employment, their wellbeing and the connections to the department in general. And staff do move in and out, depending on the work that the Chief Scientist is undertaking, to ensure that she's got the support that she needs to do the particular projects. So there's been no change in the operation. There has been a change in the diagram because we were trying to clear up—there's quite a lot of diversity and complexity in the way the department operates, and so we were trying to separate out the statutory officers from the staff that are public servants that support those statutory officers. But there has not been any change in the operation.

Senator DAVID POCOCK: So there's been no material change.

Ms Quinn: The only material change has been the increase in the seniority of the head of the secretariat, who is now a senior executive service officer. That's the only operational change.

Senator DAVID POCOCK: Why was there the need to change the org chart? Reading this, the Office of the Chief Scientist now report to the science head of division, Janean Richards. They don't?

Ms Quinn: That is not the case, no. They are operationally part of the department in terms of leave arrangements and all those sorts of things, but, in terms of the content of their work, they work to the Chief Scientist, and that's how it has always been.

Senator DAVID POCOCK: Were there any changes to the staffing of the Office of the Chief Scientist as a result of this move?

Ms Quinn: We did confirm that the head of the secretariat was a senior executive service officer and we did run a recruitment round for that position in consultation with the Chief Scientist. That is an additional resource from the department and goes to our SES cap as well. That change wasn't made as a result of the change in the diagram, but it was captured in the diagram. Previously, if the senior staff member was executive level 2, they wouldn't have been on the diagram at all, because the senior executive service branch leaders are the level we go down to on that diagram. If we hadn't increased that level, you wouldn't have seen any difference, but the fact that we've put an SES officer there is the reason why there is a box on the diagram.

Senator DAVID POCOCK: In terms of the perception, on the new org chart it doesn't look like they are actually an independent office. Why was there a need to move them?

Ms Quinn: The purpose of the org chart is about visibility for people to be able to contact staff and for people to know who it is that's looking after different areas. We go down to the level of senior executive band 1, which is a branch head. There is a branch head in charge of the secretariat, and so, just for consistency across the different elements, we've put them on the org chart. As I said, previously they wouldn't have been there at all. It would have just been the Chief Scientist's name without the name of a secretarial support staff member.

Senator DAVID POCOCK: Given that the Chief Scientist is independent, who was consulted about these changes?

Ms Quinn: Certainly the Chief Scientist was involved in those discussions, as were the existing staff of the area.

Senator DAVID POCOCK: What about the minister's office?

Ms Quinn: No. It's an administrative matter of organising staff, so we didn't consult the minister's office on those matters. We informed them of the changes.

Senator DAVID POCOCK: Who suggested these changes?

Ms Quinn: We had a process of reorganising the department through November—announced in December—as a result of the government ministry changes, with new functions moving in and functions moving out. One of

the organisational focuses was on what priorities we had in appropriately staffing different areas, so we went through the whole organisation, and it was part of that process of thinking about how we organise things. As I said, it was also just a straightforward transparency argument about who should be on the org chart for people to be able to see who to connect with both from outside and within the Public Service.

Senator DAVID POCOCK: Who does the Chief Scientist report to?

Ms Quinn: She's appointed by the government, so she has a strong relationship with the minister for science. But she is appointed by the Governor-General, so, in that sense, she reports to the cabinet and the whole of government, and she had a lot of connections across. On particular projects and particular tasks, she may be tasked by particular ministers or outside parties.

Senator DAVID POCOCK: Who did the Office of the Chief Scientist report to?

Ms Quinn: In terms of the content of the work—their projects and how they spend their time and how they go about it—it's the Chief Scientist. In terms of the underlying organisational support for their leave, wellbeing and those sorts of things, they are also public servants, and that is supported through the department.

Senator DAVID POCOCK: Just so I understand this correctly: there have been no changes or loss of staff due to this move in the Chief Scientist's office?

Ms Quinn: No. Staff do come and go in the secretariat but not because of the reorganisation or the change in the diagram.

Senator DAVID POCOCK: So there were no personnel lost in this change?

Ms Quinn: There was certainly not a reduction in the number of staff, no.

Senator DAVID POCOCK: But in terms of the actual people involved?

Ms Quinn: We advertised for the position of the SES officer. That was a competitive, open, merit process. The person who received that position took up the role. There had been someone acting in that role; they took up an opportunity elsewhere.

Senator DAVID POCOCK: So that's your chief of staff role?

Ms Quinn: For the head of the secretariat.

Senator DAVID POCOCK: Have the pay levels of the other staff in the Chief Scientist's office changed as a result of this move?

Ms Quinn: There have been no changes in pay or conditions.

Senator DAVID POCOCK: How many staff does the Chief Scientist have?

Ms Quinn: You're getting to a level of detail I don't know exactly. We'll have the science team here a bit later today. We're happy to take it on notice, or we can raise it again then.

Senator DAVID POCOCK: I'll come back and ask them. In terms of these changes, do you think there is a valid concern that there's a perception that her independence has changed a bit?

Ms Quinn: I personally don't see that, in the sense that the arrangements have been ever thus. The commitment that the department has in supporting the Chief Scientist is increased by increasing the seniority of the most senior staff member. She draws on resources beyond her secretariat for particular projects. For example, she's doing a project on the science priorities for the government; she's leading the national conversation. That's actually supported by a task force which is also on the diagram and which is separate to her secretariat support. Then she also has support for her role as head of the National Science and Technology Council. She sits on the IISA Board, which we just mentioned previously. She's supported in that role by a secretariat that supports that function. The resources that are devoted to the work of the Chief Scientist are considerable. She has a large work agenda, and it's fully supported by the department and the government.

Senator DAVID POCOCK: Is there a similar arrangement with ANSTO? How does that work?

Ms Quinn: ANSTO is a separate portfolio entity that has its own board as an accountable authority, so it's a separate entity from the department that sits within the portfolio. Something that's a bit similar in the way that we support the organisation is Industry Innovation and Science Australia. It has an appointment process. It has a secretariat that sits within the department and supports it in the same way. It is also represented on the diagram, whereas previously it wasn't. So there are some entities where there's a statutory appointment supported by a Public Service staff. There are others which are part of the department but which are branded as separate agencies, and then there are statutory independent agencies. Then there are two where there's delegated authority to them. So the governance in the portfolio is complicated, depending on the history and the operations of those organisations.

CHAIR: Can I just jump in, Senator Pocock. I'll come back to you. On the back of those questions, I want to clarify the arrangements for this evening. In relation to program 1.4 on nuclear powered submarines, is it the case that ARWA and ANSTO are appearing at 9.15 effectively as representatives for program 1.4 for that half an hour, or are there other program department representatives appearing?

Ms Quinn: ARWA is a division within the department, and it has functions other than those identified under program 1.4. We work to the pleasure of the committee. There usually are questions for ARWA that are separate from any work they might do on the submarine program, so we had presumed that that would be the opportunity for the committee to ask questions of ARWA on other activities, and they would be prepared to answer those questions. ANSTO also does work other than on the nuclear submarine program.

CHAIR: But those are the two department entities that are appearing at 9.15—

Ms Quinn: Yes.

CHAIR: as well as then appearing individually for broader questions beyond program 1.4?

Ms Quinn: That's what we had anticipated, yes.

CHAIR: I just wanted to clarify that. Thank you. Senator Pocock.

Senator DAVID POCOCK: I'll give you some questions, just to make sure the department has them ready for program 1.4. I'm interested in how many staff the Office of the Chief Scientist has now and what that has looked like over the years, going back to the last Chief Scientist. I'm also interested in the change with this restructure and what that has meant for the classification of all of those staff. Thank you. Thanks, Chair.

CHAIR: Thank you, Senator Pocock. Senator Allman-Payne.

Senator ALLMAN-PAYNE: Ms Quinn, given the unfolding revelations in relation to the PwC tax scandal, are you still prepared to engage PwC as a consultant to your department?

Ms Quinn: We do have existing contracts with PwC that are currently live. We have used their services. We have taken steps to seek assurance from PwC about the protection of our information, the process they're going through and the confidentiality clauses which all of our contracts with them have. We are reviewing our engagement with PwC. We have also updated our processes for future contracts in response to the circular from the Department of Finance, which has changed some of the contract provisions and also changed some of the guidance on considerations for whole-of-government procurement. So we are reviewing our engagement in the light of the information that has come forward, and we're working through the contracts on a case-by-case basis to make sure we've got the assurances we need to protect the government's information.

Senator ALLMAN-PAYNE: In light of what we now know—because I have no doubt that there were contracts and assurances previous to now—how can you have confidence that PwC won't use confidential government information for commercial gain, given that it would appear they've done that in the past?

Ms Quinn: I will hand to my colleague to go through some of the processes that we've undertaken so far.

Mr Mason: As the secretary mentioned, we have five active contracts in place with PwC that are at varying stages. A good portion of those are close to conclusion, in terms of the existing work. As the secretary mentioned, on advice from the Department of Finance we now have new clauses we will be looking to include in any procurements we take into the market moving forward. As part of any new piece of work we would be undertaking that would require us to go to the market, we will be considering the guidance from the Department of Finance during that procurement process.

Senator ALLMAN-PAYNE: So it is possible that, at this point in time, PwC could get new contracts going forward?

Ms Quinn: We source all our procurements through panel arrangements and competitive processes. They are open to be part of that process, and we would do our evaluation of their bids consistent with the obligations we have under the procurement guidelines.

Senator ALLMAN-PAYNE: Do department officers participate in any PwC initiated discussions, round tables, seminars or the like? If so, what are the rules and practices around confidentiality, probity and conflicts of interests that apply to any participation?

Ms Quinn: It is likely that the department has participated in some of those events, as you mentioned, depending on the nature of the work and the projects et cetera. I don't have a list but it is highly likely, as we do a lot of stakeholder engagement and engaging through other forums as well as forums we organise ourselves; it's part of our remit to understand what's happening in our areas of responsibility. We have a suite of training and guidance that we provide staff around probity and integrity. It is something we take very seriously in the

department. We have had some issues in the past around procurement in particular. Over the last 18 months we have had a significant focus on probity and integrity amongst our staff members, all the way down. So there's guidance provided, there's onboarding training, and, as you would expect, there's guidance provided to more junior members of staff if they are engaging in particular activities. We have a risk based assessment on stakeholder engagement in general. We support our staff, including junior staff, to engage with all sorts of people in the community. We have a very strong focus on what their obligations are as a public servant, on what their obligations are in relation to confidentiality, and we brief on the way in and debrief on the way out. We don't always get it right, but, particularly around anything to do with procurement or engagement with people who might be involved in procurement going forward, we have extra probity arrangements.

Senator ALLMAN-PAYNE: Thank you.

Senator McDONALD: I want to turn to freedom of information requests. Secretary, are you aware of the Attorney-General's public statements about the Albanese government's public commitment to support the FOI Act?

Ms Quinn: Yes.

Senator McDONALD: And, Minister, you would be aware of the same?

Senator Ayres: Yes.

Senator McDONALD: Are you aware that the Attorney-General has stated:

The Government strongly supports the effective operation of the FOI Act to ensure that it continues to meet the objectives of:

- increasing scrutiny of the government's activities
- developing further the quality of political democracy by giving the opportunity to all Australians to participate fully in the political process
- improving the quality of decision making by government
- enabling individuals to have access to information about them that is held on government files.

The proactive disclosure of government-held information promotes open government and advances our system of representative democracy.

That's all very noble. Are you aware of this speech, Secretary and Minister?

Senator Ayres: I'm not specifically aware of that speech but I'm certainly aware of the government's different approach on these questions to previous governments.

Senator McDONALD: Thanks for the political commentary, Minister; it's always a joy to have you at estimates. Do Minister Husic's office and the department of industry support Mr Dreyfus's statement about the Albanese government's apparent commitment to the Freedom of Information Act?

Ms Quinn: We administer our responsibilities under the FOI Act, and we do so in accordance with the law. You've asked me for an opinion on a government policy stance, in a sense.

Senator McDONALD: Sorry, no; it was about support—so functionality, I meant. I'm sorry if I sounded like I was looking for an opinion.

Ms Quinn: We operate under the legislation. We're aware of the government's desire around the FOI system. We are governed by a whole series of obligations under the act in terms of independent decision-making, our engagement with the Freedom of Information Commissioner, through processes through the AAT et cetera. The act hasn't changed, so in that sense our obligations before and after that speech remain the same.

Senator McDONALD: Terrific. What are Minister Husic's and Minister King's offices and the department doing to review their FOI practices to ensure you're abiding by Mr Dreyfus's public commitment to freedom of information?

Ms Quinn: As part of the onboarding of a new government and new staff members in the ministerial offices, we go through a process of offering training and advice. FOI is part of that onboarding. We have had information sessions with members of our ministerial offices. We also provide an advice service, through our legal area in the department, for the managing of FOI applications. That advice goes to understanding the obligations of decision-makers under the act, providing administrative support in terms of engaging with FOI applicants if that's necessary, and providing administrative support if there are challenges or questions or legal proceedings as a result of decision-making. That's how we support ministers' offices in discharging their independent decision-making duties under the act.

Senator McDONALD: So you're consciously thinking about Mr Dreyfus's public commitment to this objective and that the FOI Act should increase scrutiny of government activities, and you're consciously working that into the onboarding and the actions of the department in that regard?

Ms Quinn: That's right, in terms of the process required under the act for independent decision-making and evaluation of the criteria. There are trade-offs recognised in the act between transparency and some exclusions to protect certain elements of government activity. There are also obligations to consult third parties if they are involved in the requirement, and there's a whole set of other requirements—so there are trade-offs in the act. There's protection of certain information—for example, cabinet documents—just to ensure that information about individuals isn't inappropriately released without their knowledge.

Senator McDONALD: One of Mr Dreyfus's commitments was that the FOI Act should be:

- developing further the quality of political democracy by giving the opportunity to all Australians to participate fully in the political process

What are the department, Minister Husic's and Minister King's offices doing to ensure that its policies are consistent with that commitment?

Ms Quinn: Once again, the FOI team in the department reviews statements of government intent and also looks at the obligations under the act. There are also changes to the operationalisation of the FOI system as a result of court cases and directives from the Freedom of Information Commissioner. There is a part of the department whose responsibility it is to assess that information, to integrate it into its advice and administrative processes. When an FOI request comes into the department or the office, it is allocated to a decision-maker. It's then that decision-maker's individual responsibility to ensure they comply with the law, with the support and guidance of our legal support team.

Senator McDONALD: One of Minister Dreyfus's other public commitments is to the objective that the FOI Act should be:

- improving the quality of decision making by government

What is the department doing with Minister King's and Minister Husic's offices to ensure its policies are consistent with this commitment?

Ms Quinn: That's a repeat of what I said earlier; it's integrated into the advice provided by our service area.

Senator McDONALD: Do you get reports? Is this a project you've been working on with the department, asking for some demonstration of how this policy setting has been achieved or is in the process of being achieved?

Ms Quinn: We have reviewed, as an executive board, our FOI processes. We get regular reports from the team that coordinate the FOI system within the department. We also check in with the senior executive looking after that area about resourcing and changes in the system. It's a regular process. I don't recall specifically that response to that speech, but it's an ongoing process of ensuring that our FOI system is consistent with the policies of government and with the legal changes and guidance changes as a result of the evolution of the system.

Senator McDONALD: On notice, could you provide a summary of those changed directives or how you're addressing that with your team, what policy statement you've done, what written policy directive has been made by your office to the department more broadly? And, if you could, I'm interested in understanding not just what you've said but how you're actually managing what that might look like. Are you looking for reports or a different number of FOIs? Actually, I'll come to that part.

What are Minister Husic's office, Minister King's office and the department doing to ensure that it is proactively disclosing government-held information to promote open government and advance our system of representative democracy?

Ms Quinn: Once again, we have a team of experts dedicated to the FOI obligations and supporting independent decision-making. We have a process of making sure that decision-makers are aware of their obligations, that they're supported in the discharge of their obligations and that there's updating when information changes through time. This is a continuous process. As I mentioned, the system changes through time. I'm happy to take on notice how that works in the department and how we've adapted the system over time. But we don't make FOI policy in the department. We respond to the directives that come from the Attorney-General's Department and the Freedom of Information Commissioner as well as legal precedent through AAT and the like. We are implementing the policy, not making it or adjusting it per se.

Senator McDONALD: Have you been briefed by the Attorney-General or the Attorney-General's office on these objectives?

Ms Quinn: I haven't. There are FOI areas in all departments across the Commonwealth. There are arrangements for them to connect together and get updates when there've been changes in policy and changes in law. I don't know the specifics, but I'm fairly sure that our FOI team would be part of those interdepartmental governance arrangements and they would have been given information from the Attorney-General's Department, as directed by the Attorney-General's Department.

Senator McDONALD: Has PM&C contacted you about ensuring the department is abiding by Mr Dreyfus's public objectives?

Ms Quinn: I'm happy to take that on notice unless my colleague has more information.

Mr Mason: We will have to take that on notice.

Ms Quinn: It is the case that from time to time we get inquiries or directions from PM&C. It's one of their obligations to ensure policies are implemented and aware across the system. We'll take it on notice if there was a specific request.

Senator McDONALD: Chair, I have a range of questions that will have to be taken on notice about FOIs around the number, how timely they've been processed and so forth. I'll put the rest of my block of questions on this on notice, rather than read through the list.

Ms Quinn: We have some of that information here. My colleague has got the numbers of FOIs we've had or we're happy to take it on notice. What would serve you best?

Senator McDONALD: I'm happy to put it on notice because they're all numerical answers. I'm sorry if you brought that information with you.

CHAIR: Senator Bragg?

Senator BRAGG: Has the department entered into any new contracts since February 2023?

Ms Quinn: Almost certainly.

Senator BRAGG: Have any contracts been renewed since February 2023?

Ms Quinn: Almost certainly. We have a large number of contracts across the department.

Senator BRAGG: Can you provide those on notice?

Ms Quinn: Happy to. There is a process of providing information on contracts through Senate orders and the like. Are you specifically interested in items since February 2023?

Senator BRAGG: Yes. What about grants?

Ms Quinn: Have we provided grants since February 2023? Yes, we have provided grants both through the Grants Hub but also through grants administered within the department.

Senator BRAGG: Can I get those on notice as well?

Ms Quinn: We're happy to take it on notice.

Ms Urquhart: There are two Senate orders that pertain directly to your questions. Procedural order 13 on entity contracts was delivered to the Senate President on 28 March for Minister Husic and on 23 February last for Minister King. Under procedural order 16, departmental and agency grants, Minister Husic's response was delivered on 10 May and Minister King's on 18 May.

Senator BRAGG: Have these relevant ministers accepted all recommendations from the department in relation to grants that have been awarded since February 2023?

Ms Quinn: I can take that on notice. Certainly the majority of the ones that I've seen, but I haven't seen absolutely all of the grants provided, so I'm happy to take on notice if there were deviations between recommendations and awards.

Ms Urquhart: If I might set out what those orders comprised, in relation to Senate order 13, which goes to entity contracts. It was a list of contracts that were live or entered into in the 12 months prior to 31 December 2022. The same was done for both ministers King and Husic. I can then tell you about the grants. For both ministers a list of grants was submitted. In minister King's case it was for the period 14 January 2023 to 19 April 2023; and for Minister Husic it was for the period 14 January 2023 to 19 April 2023.

Senator BRAGG: Have there been recommendations made by the department which have not been funded?

Ms Quinn: I would have to take that on notice. We will have staff here under particular programs that will have more information. We're happy to take it on notice. Once again, I've not seen any, but I haven't seen all the grants that have been made.

Ms Urquhart: Again, if you're talking about grants and grants recommended that weren't funded, it sometimes depends on the process that might pertain to an individual grant program. It can be the case that a list is drawn up of assessed grant proposals. They might be provided to the delegate in a particular order. The delegate then will make a selection based on the criteria of the program against the guidelines. So it could be said that you would have grants in lists for certain programs that could be considered suitable and therefore could fall into the category of what you might classify as recommended, but not necessarily then selected, subject to the pool of funding in an individual grant program or indeed relative suitability.

Senator BRAGG: Did the minister award grants since February 2023 that were not recommended to him by the department?

Ms Quinn: I'm not aware of that situation either, but I'm happy it take it on notice. I also point out that, depending on the grant guidelines, the department administers a set of grant programs where the delegate decision is not ministerial. But you're particularly interested in ministerial decision-making?

Senator BRAGG: Yes.

Senator HUGHES: Minister, could I just come back to you. When we just spoke before with regard to the company Silicon Quantum Computing, we've had a vacancy since April 2021. Minister Husic, though, has repeatedly stated the importance of the government's quantum strategy, and he has even gone so far as to confirm national security importance to quantum technology. Yet in the past 12 months he still hasn't filled the government's board position at Silicon Quantum Computing. What would his hold-up be, and why is that?

Senator Ayres: It's not something I've been briefed on. It's outside of my direct area.

Senator HUGHES: I appreciate that, but you're here representing Minister Husic. He has made repeated assertions, yet he hasn't bothered to appoint anyone to the board.

Senator Ayres: I had begun my answer, I had not completed it. You are right to point to the importance of the National Quantum Strategy. The government in the last budget has put its money where its mouth is on these questions: \$19.8 million to establish the Australian Centre for Quantum Growth; \$40.2 million to deliver a Quantum Technology Challenge program, putting quantum tech to work dealing with national challenges; and of course the broader industry growth and other programs of the department. I'm not aware of the relationship between the organisation that you're asking questions about and the broader quantum strategy. I would be very happy for officials to try and flesh it out a bit more, and if necessary I'm happy to come back to it.

Ms Quinn: It might help the committee to have some background. The Commonwealth holds 30 per cent shares in the Silicon Quantum Computing company, which is a company developing a world-leading quantum computing technology. As part of those shareholder rights, the Commonwealth may appoint a director, but it's not obliged to do so. The position has been vacant since the retirement of the previous deputy secretary from the department. The company itself is continuing its success. In June 2022 it went out for capital raising et cetera. Part of the considerations of the government has been around whether it would like to take up the opportunity for director, the skills and capability and discussions with the company about its future directions. The government is supporting this company, as well as others, through the quantum strategy in general. There have been active and ongoing discussions with Silicon Quantum Computing to make sure the Commonwealth has a clear understanding of its investments and how it's working with other shareholders. So there's no lack of engagement through other means. It's not the case that whether there isn't or is a board position is the end of the government's relationship with this company, given that we are shareholders in the company.

Senator HUGHES: When you consider that someone like Mr Cannon-Brookes owns 11 per cent of AGL, yet he is having a significant say in the direction of a rather large organisation that's quite important to the majority of Australians. Yet the government holds 30 per cent shares in this company; we're being told this area is critical to security; yet as a government we haven't engaged directly with appointing a director.

Ms Quinn: We engage regularly and through appropriate means.

Senator HUGHES: But not at board level.

Ms Quinn: We engage with board members through discussions et cetera. A board appointee isn't the only way to have an influence in the company.

Senator HUGHES: It is an important part, to be part of board meetings and board discussions on where the direction of the company is going, future investments, having a look at their broader strategy I would have thought, if it was so critical, and having almost a third of the company.

Ms Quinn: One of the questions comes up is what type of person the government may wish to appoint. Previously it was a public servant. There are governance issues to consider in terms of the capability of a public

servant to sit on a board and do their fiduciary duties et cetera. So that's one of the considerations that we have certainly provided advice on, in terms of how you have appropriate governance of the individuals that are appointed and how they operate appropriately. So I just want to be very clear that there is no obligation to have a board member, and there is active engagement with the company in support of the shareholding arrangements. We will have the team that looks after the quantum strategy here as part of science and technology. I'm sure they can take you through exactly how we engage with the company if you have concerns.

Senator HUGHES: Maybe this is for a little bit later, but boards are obviously responsible for a lot of the financial oversight of a company. What sort of financial oversight are we ensuring that the government still have, as a 30 per cent shareholder, if they don't have someone sitting in a boardroom when those reports are being tabled?

Ms Quinn: I'm happy to get the team that looks after this more closely than me to provide you a more fulsome answer, but there are myriad ways that a major shareholder can get information from a company, independent of whether they do or don't have a board member. The company operates under the Corporations Act in terms of transparency. There are opportunities to ask questions. I can get them to take you through it in more detail, but we take very seriously our obligations of supporting the government as a shareholder in this company. It is a slightly unusual arrangement compared to other arrangements, in terms of an investment in a private company, and we do have in place a significant governance arrangement to make sure we have the information the government needs as a shareholder, including talking with other shareholders in the company.

Senator HUGHES: Minister, coming back to you: the government has had time to appoint union official Mr Andrew Dettmer to a robotics advisory committee but hasn't had any focus, apparently, on filling a board position on this critical company, on what Minister Husic himself refers to as something important to our national security.

Senator Ayres: As you've heard from the evidence of the officials, the department and the government have been actively engaged with this company. It's an important company, but it's one of many companies in this sector that the government is supporting. It is different to some other companies in this sector, and the government has an ownership relationship with the company. The department is engaged actively with the company and has arrangements with the company in terms of the provision of the appropriate information to guide decision-making. It was not a priority of the previous government. The vacancy has existed for longer than 12 months—while the previous government, I think, at some junctures had two simultaneous ministers for industry. The government is engaged in as many ways as it can be and has not elected to take up the option of appointing a board director. We see our responsibility here as much broader than just appointments.

Senator HUGHES: To anyone looking from the outside, it would appear that this government is more focused on appointing its union mates to advisory committees than it is to making serious appointments to boards of companies that it owns 30 per cent in and that, again, Minister Husic has referred to as being important for national security.

CHAIR: Senator Hughes, I might just—

Senator HUGHES: Sorry, Chair; I'm just going to say there was a cheap political shot by Minister Ayres in there, so let's—

CHAIR: Well, you don't know what I was about to say. It was just that you indicated that you needed about five minutes, and we've gone a little bit longer.

Senator HUGHES: I've only got one more question. It's actually not on this, but I'm happy to put it together, because it's just one very brief question. Ms Quinn, is there a budget within the department for welcome to country ceremonies and smoking ceremonies, and what is it?

Ms Quinn: Not specifically for those activities. We have an inclusion and diversity area that supports activities across a range of initiatives that we have, and we allocate funding to those, including our actions under our reconciliation action plan and also our diversity plan. We have a series of staff networks, such as the cultural and linguistically diverse background network, and disability strategies et cetera. I'm happy to take on notice expenditure that we may have undertaken.

Senator HUGHES: That would be great. If you could take on notice how many ceremonies there have been, how much they cost—

Ms Quinn: We've actually got some information here.

Mr Mason: I can give you the dollar value year to date, if that's helpful.

Senator HUGHES: That's exactly what I want.

Mr Mason: It is \$1,727. That was—

Senator HUGHES: Do you know how many—

Mr Mason: That would have covered a number of them. I'd have to come back to you on the exact number—

Senator HUGHES: Can you come back to me on how many that covers.

Mr Mason: —but typically we would have a welcome at major all-staff events.

Senator HUGHES: And is that performed by an outside person, or is it just something that's—

Mr Mason: A welcome to country would be performed by the traditional owners from that country.

Senator HUGHES: Thank you. We'll put anything else on notice.

CHAIR: Thank you, Senator Hughes. I believe that concludes the questions the committee has for corporate. Thank you very much.

[10:09]

CHAIR: The committee welcomes representatives from the Department of Industry, Science and Resources for program 1.1, Growing innovative and competitive businesses, industries and regions. I will give the call to Senator O'Neill.

Senator O'NEILL: In the budget, the government announced a new Industry Growth Program. I'm sure there's huge interest in this. Would you be able to give us a summary of what the program is actually designed to achieve?

Ms Quinn: Happy to. As you mentioned, the government announced a new program, and I mentioned it in my opening statement. It is intended to provide advice services to small and medium enterprises and startups. It will provide business advice services, and then there's an opportunity for matching grant funding between \$50,000 and \$5 million for successful applicants. The areas of focus within the economy are those that are aligned with the priority areas of the National Reconstruction Fund.

The process will be that applicants can ask for business advisory services. Those business advisory services are intended to be provided by experts to support small and medium sized enterprises and startups, drawing on industry knowledge. The minister has used the 'industry led' concept—industry helping industry—going forward.

The matching grants are to help startups and small businesses get through what is often referred to as the 'valley of death', which is between having a good commercial idea and being able to take it to market. This is a grant fund program, and it is intended to support the ecosystem to get through that early stage of development before they are ready and able to access capital markets or other funding mechanisms in the system.

It's built off success in previous government programs. We've taken the lessons learned from the importance of the advisory services in particular and how valued those have been by previous participants but also from the targeted grants matching funding. I'll pass to my colleagues, in terms of the program, if they want to add anything else.

Mr Purtell: I think that has covered it.

Ms Quinn: Okay. We are happy to take further questions.

Senator O'NEILL: You referred to grants of between \$50,000 and \$5 million, and then you indicated matching grants. Can you speak briefly to that and why that's so important.

Mr Purtell: That's exactly right; it is very important. We're still in the design phase of this. Obviously, it's been announced by the government and the big picture is very clear, as the secretary has outlined, but the exact details of, for example, the splits between different sizes of grants for different needs of industry are still being developed. We will be talking to industry and other stakeholders over the next few weeks.

Senator O'NEILL: Because you're covering quite a wide range there.

Mr Purtell: It is.

Senator O'NEILL: The secretary has spoken about small and medium enterprises and also startups, which can all be at very different scales and very different points of their expansion and have different levels of employment embedded within them. So there's a need for differentiation here.

Mr Purtell: There is. To start off, building on that question, within the goals of the program are two interlinked but somewhat separate goals. One is commercialisation of novel ideas. That is, say, a startup or an SME or an inventor has something that they want to commercialise—an innovation, something that's new. Sometimes the grant need for an applicant like that could be quite small. The very early stage commercialisation—market testing et cetera—could be quite a small amount of money, at the bottom end of the range that you mentioned. Equally, right at the other end, the goal is helping SMEs and start-ups who are

operating in those NRF priority areas to grow and scale up. So, at the larger end, you could have a medium-sized business that's successfully operating but wants to do a step change, wants to transform its operations and scale up, and it would be eligible to apply for one of these large grants.

You mentioned earlier, Senator, the matched funding. In that context in particular there would absolutely need to be a significant similar contribution from the investor themselves, from the private sector themselves.

Senator O'NEILL: You used the term 'industry led', Ms Quinn. To put that in layman speak, is it that this particular industry participant, a business owner at whatever scale, having skin in the game means they're backing themselves in and they're just asking the government to assist them to grow?

Mr Purtell: A hundred per cent, Senator. That's exactly right.

Senator O'NEILL: So matching funding?

Mr Purtell: That's why it's specified in the big-picture outline of the program as matching funding, not just grants.

Senator O'NEILL: That changes the way things operate considerably. Why is the term 'industry led' so critical, and how does that feed into the further work you've done in terms of improvements on previous experiences?

Mr Purtell: There are probably a few elements to that. Every element of the program, really, is industry led in a slightly different way. The secretary mentioned that the heart of this program is advice to business. That's one of the real success stories out of previous programs that we're seeking to build on. In many cases there's an element of business maturity or commercialisation advice that doesn't require a grant, actually, but requires specialist advice. Obviously, the people we will be bringing on board to provide that advice need to be people who have genuine industry experience. So in that sense—that we will be contracting those people to provide that sort of advice—it is industry led.

Senator O'NEILL: So, if you were growing in one particular sector, the way to develop that and perhaps seek out further markets overseas might be quite different. The car parks sector, by comparison with innovation in another part of the program, in another industry, would be very different.

Mr Purtell: Absolutely. The NRF priority areas, which are our sectoral frameworks, if you like, demonstrate exactly what you just said. The medical world, the life sciences world, has very different needs to other parts of the industrial economy. The critical technology type work, again, is quite different.

For that reason, the second part of the industry led nature of this program is that we are planning to engage, as a second source of advice, not-for-profit organisations that have extensive experience and networks in an NRF priority area or in this world generally. That will be a separate process, which we will advertise in due course, to bring on that advice. You could imagine, for example, a company operating in a particular sector gets tailored advice from an individual adviser, but then that adviser says, 'Given the sector you're operating in, it makes sense for you to engage with one of these industry partner organisations that we'll bring on.' So that's the second 'industry led'.

The third one I wanted to mention is that the grant assessment process will have at its heart a grant assessment committee that will, again, be made up of people with real industry and commercialisation experience, who can make those judgements about what is worth backing to scale up or commercialise.

Senator O'NEILL: Is that because things can change quite quickly and having on-the-ground knowledge from those experts in business is going to be critical?

Mr Purtell: Exactly, Senator. That's right.

Ms Quinn: I'd just like to add to that. I mentioned, for example, that we'd drawn on assessments, expertise and feedback from previous programs. Much of this framing has been built on the success of the Accelerating Commercialisation elements of the Entrepreneurs Program. The feedback we received from small business enterprises was that money alone is not what they're looking for. Often there's a characterisation that small business just want a handout. That is not the feedback at all. What they really value is the expertise and the knowledge so that these small businesses and start-ups can achieve their vision. It is the connections and the expertise and the experience that they really value, and the matching money can help. But that is a smaller part of the program. It is really the expertise, and that is based on the experience of successful transformation- and commercialisation- and growth-phase businesses. It's part of the ongoing learnings in this industry or policy space about what really matters, and it is not just that experience in Australia; it is also the experience in other countries about the importance of very targeted industry advice that is relevant for that industry. The challenge for us in implementing it is to work with industry to find that expertise to be able to bring that expertise to bear, to be able

to leverage that into the broader ecosystem. Our role in the department is to match-make industry expertise to industry that needs it so that the industry can help itself grow and learn the lessons.

Senator O'NEILL: If you are running a business, an input is one moment in time. Businesses want to grow, and they want to leverage off that investment in their business. I want to come back to the valley of death, but you never know who is listening to this. Somebody could be driving between Cobar and Broken Hill today and listening to what is discussed here. We use the term 'NRF', and we think that everybody knows what that is and what the priorities areas are. I will get you to put on the record what the priority areas are. Can you give a sense of what benefits you think the program is going to provide in trying to establish ecosystems to target—why these areas and which ones?

Ms Pickworth: I will lead off with the NRF priority areas and then throw to my colleagues. The seven priority areas are: renewables and low-emission technologies; medical; value-add in agriculture, fisheries and forestry; value-add in resources; defence capability; transport; and enabling capabilities.

Senator O'NEILL: If anybody is out there listening and they are innovating in this space, they have great businesses and they are looking to grow, this is a program for them as this is where we grow our knowledge, our productivity and our jobs. That's it in a nutshell really, isn't it?

Mr Purtell: Agreed, that's exactly right.

Senator O'NEILL: And we are doing that on the back of great advice from business leaders who will be part of the determination of how this program proceeds. I bring you back to the 'valley of death' because it is colourful language. What exactly is it, and why does it matter that the government understands this problem?

Ms Pickworth: My colleagues have more expertise in this. The way I describe it is that there is a point in the evolution of a small business or a start-up where they've got great ideas and great expertise, but they might be growing very fast, and they might need expert advice or capital to make a jump in their business profile. It can be very difficult for businesses that have really sound ideas and really strong expertise in a particular area. They might be an expert in a medical science field, for example, they might be excellent scientists and they've brought in extra advisers et cetera. But to transition from a small company in a start-up to a medium-sized one and then going forward, there is what is described as a 'valley of death' where either you need to bring on extra technical capabilities to your organisation or you need a non-linear jump in funding, or you need to change where you sit in a market. If you are a small enterprise that has been serving a local region and your next step is to go international then there is a big step in the mindset and the capability that is needed. It depends very much on the industry and the firm and what services they are providing or goods they are providing, but almost always in the journey there is a moment when they need to reach out, look up and get support to be able to make the next leap. I'll pass to colleagues to add if I've missed something.

Ms Roussel: Valley of death is colourful language, and Ms Quinn has covered it really well. We hear all the time it's both the capital need and the advice because often they're lacking revenue and capital, so they are not going to be as competitive or able to access that capital in the market. You talked about having the matched funding. Part of that is about trying to crowd in or bring in private sector funding with the matching government funding to get those businesses off the ground. But the other part is the advice—and Ms Quinn covered it as well—around talking about the fact that the skills and expertise required to be a start-off really shift when you start to scale up and need a different suite of knowledge and capability in your team, but also that advice to be able to grow.

Senator O'NEILL: It's probably going to be particularly important, given the pressures on the labour market, that there's some curated way to get to this advice. People have put their house on the line, they've grown, they've got the innovation. I'm just thinking about Loam Bio, a company I visited out in Orange in midwest New South Wales. They've got all this psyllium. I saw amazing imagery of what they do—psyllium put into the ground—and they were already showing that they've got six times the amount of carbon capture going on. It hits a point where all this work's done, the research is there, they're at a critical moment of growth, and if they can't get the right person then all of that disappears and all the jobs go with it. So, this is really the critical bridge across the valley of death that is being constructed by this policy.

Mr Purtell: That's exactly right, and maybe I could add one small thing, which I perhaps should have mentioned earlier, when we were talking about industry led. There is a kind of fourth plank of the industry led part of the program, which is that we have advertised just in the last few days the position of an executive director who will have the policy lead of this program, in a sense, and will be overseeing the advisers we've talked about several times already. That person, again, will be someone with a significant industry commercialisation

background who will understand the situation you've described of the company you visited and will be able to direct the team of advisers and the other parts of the system to maximise the impact of this program.

Senator O'NEILL: Thank you. I'll come back with further questions.

Senator HUME: I have some questions around the National Reconstruction Fund Corporation. Minister, can you describe, in your words, the National Reconstruction Fund profile of release of funds?

Senator Ayres: The legislation for the National Reconstruction Fund has gone through the parliament. The fund will—I'm not quite sure of the right word—be established, come into being, around the middle of the year. In terms of the allocation of funds, the 2023-24 budget provides I think \$5 billion, and then there's a step-out of capital provision from future budgets, which I'm sure the department can take you through. In terms of the allocation of funds, this is a fund that will have an independent board, much like the CFC, and the funding of projects will be framed by the legislation, framed by the investment mandate, but will ultimately be a matter for the fund itself. So, it will depend upon the projects it considers and the decision it makes in terms of how those funds are disbursed.

Senator HUME: What is the expectation of government as to how quickly the \$5 billion will be invested?

Senator Ayres: Well, there's a tension here, isn't there? We'd like to fund as many things as quickly as we can. The task in front of this government in terms of the deindustrialisation of the Australian economy that's occurred over the last several decades is a very significant task. The profile that's been set out is an estimation—\$550 million in 2023-24, the same amount in 2024-25 and just over \$1 billion in 2025-26, and in 2026-27 it's anticipated that it will be just over \$2½ billion, for an overall amount of around \$4.7 billion over the forwards. That is an estimation, and it frames the government's expectations about how the board is going to do this work. But, as I say, it is an independent board, and it has to make decisions within the framework that it's been given.

Senator HUME: While the \$5 billion is waiting to be rolled out over the forwards, what is it invested in?

Senator Ayres: I might defer to my colleagues here. There are investment decisions that the board will have to make, but Ms Luchetti might have some more information.

Ms Luchetti: The \$5 billion will be credited to the NRFC, the corporation, on commencement. What we envisage is that it will take some time in those early days, in those first few months, for the corporation to establish. They will have to do recruitment, buy software et cetera for the actual corporation. We then expect they will start receiving proposals coming through, and they will have to set up an origination team and start thinking about the pipeline coming through. So it will take a couple of months, I think, for the actual establishment of the corporation before it starts thinking about those investments and those proposals coming through.

Senator HUME: I think the budget says there's \$53.2 million for the establishment costs of the NRFC. What I want to know is what the \$5 billion is going to invest in while it's waiting to be rolled out into eligible investment opportunities.

Ms Luchetti: What I would say is the \$5 billion, like I said, will be credited to the account. What you see in our PBS for the corporation is there are a number of assumptions made; we have had to make a number of estimates. Depending on those projects coming through and the decisions the board takes, it will be up to the board to determine where it will invest those dollars.

Senator HUME: Just let me point you to Budget Paper No. 2, page 165, which is on the National Reconstruction Fund Corporation establishment. It says there, about four paragraphs down:

The NRF will earn estimated receipts of \$188.7 million over the forward estimates from the \$15.0 billion of investments in loans, equity investments and guarantees, with the returns to be reinvested to ensure the NRFC's sustainability.

My understanding—and I think that was just confirmed by the minister—is that the legislation will only allocate \$5 billion of the \$15 billion for the purposes of the NRFC, with the remaining available by 2029. So just let me understand. That \$188.7 million is the return from the \$5 billion over the forwards—is that right?

Ms Luchetti: The \$188.7 million relates to the receipts in terms of what we will see coming through from loans, from fees, from where the money is invested. Like I said earlier, the NRF will be ramping up its operation, so it will take some time, and these estimates only reflect the interest received on loans, revenue from fees and charges in the first four years.

Senator HUME: What are the assumptions that deliver that \$188 million of return to the fund?

Ms Luchetti: We have looked at profiling. We have done a bottom-up approach in terms of how we have come to this. We have looked at other special investment vehicles and their early days of establishment. We have looked at benchmarking industry practice. The model takes into account what we have seen across industry and across other SIVs.

Senator HUME: Is it a commercial rate of return? The \$188.7 million on \$5 billion?

Ms Luchetti: The NRF will operate with a positive rate of return across the portfolio.

Senator HUME: It's clearly positive, but is that a commercial rate?

Ms Luchetti: We're working through the actual rate of return at the moment, and it's being finalised as part of the investment mandate.

Senator HUME: Hang on. You've got to put an assumption in the budget here. I just want to know what the assumption is that's underpinning this budget estimate.

Ms Luchetti: There are a number of assumptions in the budget papers. As it says in our portfolio budget statement, we've had to make some indicative estimates across these numbers. Once the board are in place, I'm sure they will look at how they will think about the investment mix and about where they will be wanting to invest. Like I said, we've looked at other special investment vehicles across government, and that's what these numbers are based on.

Senator HUME: I get all that, but there's \$188.7 million. Is there anyone that can explain to me how we earned \$188.7 million? What are the specific assumptions underpinning that? Is it based on a rate of return of the \$5 billion?

Ms Luchetti: There is a rate of return sitting underneath the numbers. It's based on the loans and the revenue received from fees. That's how we have come to calculate that receipt, that \$188.7 million.

Senator HUME: So you haven't applied a commercial rate of return.

Ms Luchetti: There is a rate of return that is underpinning—

Senator HUME: I'm trying to work it out. I'm literally doing this scribbling here, on a piece of paper, trying to work out what the rate of return is on the \$5 billion, and it looks to me to be about 3.77 per cent. Is that right?

Ms Pickworth: As you'd be aware, with the NRF there is the investment mandate, and that's where the government will set out the rate of return. As per the legislation, the rate of return needs to be consulted with the board, and then it'll be presented to parliament. As part of preparing the budget, we used some indicative estimates around how to present the National Reconstruction Fund Corporation, but, all of that, as per our PBS, is in advance of the board and the corporation being established.

Senator HUME: What is the thinking behind the \$188.7 million, the return on \$5 billion? There must be something like, 'We have assumed that we're going to earn this much in fees and this much on having the cash in the bank'—whatever it might be. How was that worked out?

Ms Pickworth: As my colleague was saying and I was explaining, there's a level of detail that sits behind these estimates that are based on our best assumptions. But, in terms of the specifics of the rate of return, that's something that'll be set out in the investment mandate, and, as per the legislation, the government will consult with the board on the investment mandate, and then that'll come through to parliament. At that point we'll be able to talk much more fulsomely about it, but also, at that point, the board will have actually been established and the corporation will have commenced. Obviously, part of that will be that we'll be able to refine and reflect that into making the estimates that sit behind this much less indicative and much more comprehensive—at the point where the corporation actually exists.

Senator HUME: What are the best assumptions behind that?

Ms Pickworth: Apologies, but I end up having the same process loop go around. As Ms Luchetti set out, we did a range of work and modelling and we looked at the other special investment vehicles, to take the lessons learnt from there. We recognise that, for the corporation in its initial phase, there will be a period of set-up. We're really cognisant of the fact that the corporation doesn't yet exist. There's obviously been money allocated in this budget for it to commence and exist. There's a level of detail that we are not able to go to at this point because the corporation hasn't yet been established.

Senator HUME: Somebody came up with a number—188.7.

Ms Quinn: As the team have identified, there are a series of assumptions. One is: when does the corporation start? When does it start issuing loans and taking equity positions and guarantees in companies? What's the assumption of the time profile for that? What do we think the returns might be over what time horizon et cetera? All of it is incredibly hypothetical, given the corporation doesn't exist and the finalisation of the investment mandate and the priority areas has not been finalised. As part of the budget process, we were required to make a set of assumptions to fill out the information that's required under the accounting standards. The team have done a process of bottom-up assumptions. The crudest way to think about the rate of return is the \$188 million divided

by some sort of scheme of \$5 billion over the forwards. That's as close as you get to an aggregate assumption because the final outcome is a function of all of these iterative assumptions.

Senator HUME: I'll ask two things. Can we please have, on notice, a breakdown of exactly what assumptions came up with \$188.7 million, based on the \$5 billion? As I said—back-of-the napkin stuff—I've just calculated that it's a return of about 3.77 per cent over the forwards. If I put money in a term deposit over the forwards I would get 4.3 per cent. And that's just over 12 months. I'd get 4.8 per cent if I invested over four years, over the forwards. That looks like a pretty crappy rate of return to me. But, beyond that crappy rate of return, it also is less than the cash rate. So we're borrowing \$5 billion to create a return of less than the cash rate? Come on! Really? We're doing that? That's good government? Is this a good decision? I think we probably need a little bit more detail behind that return.

Senator Ayres: The officials have indicated what they can provide you on notice about that, but also, importantly—

Senator HUME: Are you happy borrowing \$5 billion, Minister, to earn a rate of return that is less than the amount that you can borrow?

CHAIR: Senator Hume, I note that the minister had just commenced an answer, so we'll let the minister answer.

Senator Ayres: There are two things that I think are important to draw from the officials' evidence in addition to whatever they have said and whatever information we'll be able to provide on notice. Firstly, what has happened here directly relates to their assessment of what happens at the commencement of these kinds of special investment vehicles, and there's a range of these across the government. There was a range of them across the previous government: the Clean Energy Finance Corporation, Export Finance Australia—a range of these vehicles that are very important to executing different bits of government policy and government engagement with the private sector. So there is an assessment that is born of the experience across government and more broadly, about how these funds operate in their first phases. That is, I think, axiomatic.

The second thing is: what is the policy problem that we're trying to deal with here? The government's objective here is to build a vehicle that is capable of supporting the Australian private sector to commercialise and rebuild manufacturing onshore in Australia. Under previous governments—and I don't make this as a partisan observation, but, if pushed, I'd point to what the last 10 years looked like—over the last four decades, we have de-industrialised the Australian economy and lost industrial capability, and good Australian research and commercialisation have gone offshore, and good jobs have been lost in our outer suburbs and in our regions, and that has an impact on our capacity to deal with the big challenges of climate, of security and of trying to push Australian exports up the value chain. And this fund is directed towards that work. There is some discipline—and officials have explained it as far as they can in the discussion now and will provide more information on notice if required, but there has been some discipline around the assessments and what is going to happen over the forwards as the fund is established, and, when the investment mandate is provided, as has been set out, it will provide some more guidance not just to the fund but also in terms of some clarity for the parliament and for the public more broadly about what the projected rates of return are, and that will guide future investments that the fund makes.

So they are two separate questions: What is the expected rate of return over the forwards in the setting up of the fund? What is the rate of return that is going to guide investment decisions for the fund ongoing?

Senator HUME: So you're comfortable, Minister, looking taxpayers in the eye and saying you've borrowed \$5 billion of their money and you're going to get a return over the forwards that is less than they could get if you had put that money in a term deposit at the CBA?

Senator Ayres: Absolutely.

Senator HUME: Thanks.

CHAIR: I'll go now to Senator Shoebridge, and, to give an indication, I know Senator Hughes has questions as well. Senator Shoebridge, you have the call.

Senator SHOEBRIDGE: Nice to see you, Minister, and everybody, this morning. In terms of the direct government spend on research and development in this budget, the Australian Academy of Science criticised it as being the lowest spend on record. Do you agree with their analysis?

Ms Quinn: The most recent science and research and innovation budget tables are for 2022-23. It was quite a complicated exercise pulling together all the spending through different sources on research and development, because some of it is direct spending, in terms of programs; some of it is through the—

Senator SHOEBRIDGE: Tax breaks?

Ms Quinn: tax credits et cetera. The most recent information in those tables suggests that the government had an investment of \$12.1 billion in 2022-23, and this is an increase over the 2021-22 amount of 3.2 per cent. So, on the basis of that information, there's been an increase. We haven't yet pulled together, across all the different areas, the 2023-24 budget tables. But, looking at an assessment of the programs within our portfolio directly, the government has increased spending on research and development and innovation areas, in a net sense, in this budget, and, if you take into consideration areas such as the defence program, and there has also been a focus, so—

Senator SHOEBRIDGE: But very little.

Ms Quinn: On the face of it, I'd imagine it's larger, but we won't know until we pull it together for 2023-24.

Senator SHOEBRIDGE: When you say '3.2 per cent', are you referencing nominal?

Ms Quinn: These are, I believe, nominal numbers, yes.

Senator SHOEBRIDGE: So it's less than inflation?

Ms Quinn: Less than the consumer price inflation index, which is not necessarily the same pricing index that is used for other parts of the economy.

Senator SHOEBRIDGE: Do you think scientists are cheaper?

Ms Quinn: No. It depends on the composition of spending for different institutions. It depends on their activities. For example, the weighting in the consumer price index is not the same as the weighting for producers et cetera.

Senator SHOEBRIDGE: But the 'increase' is less than half of the CPI, isn't it?

Ms Quinn: I haven't got the exact CPI, but, roughly, I imagine.

Senator SHOEBRIDGE: Yes, well, we've all been to the supermarket.

Ms Quinn: This is between 2021-22 and 2022-23, so that's prior to the significant increase in energy prices, so I'm not sure that that's—I don't think it would be half.

Senator SHOEBRIDGE: The Australian Academy of Science data suggests that the direct government spend on R&D is just either 0.49 per cent of GDP or 0.51 per cent of GDP. When you were pulling the budget together, did you have a figure?

Ms Quinn: We certainly looked at what we were doing within our portfolio, and the budget tables that I have just referred to, which we pulled together as an organisation, have the 2022-23 number, which corresponds to the number you just read out—

Senator SHOEBRIDGE: Which one of them?

Ms Quinn: So 0.49 per cent in 2022-23 is the total government investment. I would just point out that there's more than just government investment in—

Senator SHOEBRIDGE: We'll come to that. But 0.49 per cent—that would be the lowest on record, wouldn't it, as a proportion of GDP? It's a record low.

Ms Quinn: I don't actually have that in my briefing as flagged. I'd be happy to take that on notice. I don't currently have this. And my colleagues who—

Senator SHOEBRIDGE: I'm not asking you to go back to 1849—

Ms Quinn: No, no, and—

Senator SHOEBRIDGE: In the last 30 years, that would be the lowest, wouldn't it?

Ms Quinn: I don't know, to be honest. It is down from 2021-22. But we're expecting our colleagues who put together the tables to appear in the next estimates section, and they will be able to answer questions of detail around the historical tracking of that particular measure.

Senator SHOEBRIDGE: Minister, are you, on behalf of the government, satisfied with a government spend on R&D that has gone backwards from the last budget and is now just 0.49 per cent of GDP? Is that where the government wants it to be—going backwards, and at such a small proportion?

Senator Ayres: The figures I have in front of me, of course, are—and I think you indicated you were about to turn to them—about the aggregate spending between the public and private sectors and other institutional spending on research and development. So, while I haven't got the government contribution in front of me that you and the secretary have been engaging about, I think the principle is the same, and that is: we have seen a low

level of expenditure, over the course of the last 10 years, on research and development—below the OECD average. The last time that expenditure peaked was under the last Labor government. This is a ship that needs to be turned around, and that can't be done overnight. The government's making a series of other investments in this area—in particular, the discussion that we just traversed, the \$15 billion National Reconstruction Fund, which again goes to some of these areas—but this is a significant national challenge. The government is making some investments in this area, and we're absolutely focused on research and development funding.

Senator SHOEBRIDGE: Turning to the economywide R&D spend, again I'm leaning on the work of the Australian Academy of Science here, and they cite the OECD average as being 2.67 per cent. They say that the figures on this budget put Australia at just 1.79 per cent, not even two-thirds of the OECD average. Is that the figure you have, Minister?

Senator Ayres: It is.

Ms Quinn: But I just note the 1.79 figure as a percentage of GDP is 2019-20, which is comparable to the OECD metrics. So there's a time lag in doing the work to do the comparison because it's not straightforward to compare across countries in terms of R&D spending. So that is a quite a dated metric, but it is the number I have for that year.

Senator SHOEBRIDGE: Minister, you said that's what you had for the 2019 figure.

Senator Ayres: I have exactly that same figure in front of me, and it is that period. It underscores the scale of the challenge that the government is dealing with in this area. It's why more broadly, outside this portfolio, we have the Universities Accord, a series of these reviews that are occurring in the higher education sector, and the action that's happening inside this industry and science portfolio. They are very important areas of reform.

Senator SHOEBRIDGE: When will there be an updated comparator for the economywide R&D spend? It's obviously a problem for you, Secretary, if the only figures you've got are now four years old. First of all, is it your department's responsibility for pulling those updated figures together?

Ms Quinn: Yes, we do pull them together after each budget. The most recent numbers we have are from the 2022-23 October budget, we will be commencing a process now to gather the information to be able to update it off the 2023-24 budget. I don't have the exact timing, but I can get someone to let me know and I'll update you when it comes through.

Senator SHOEBRIDGE: You say you pull them together after each budget.

Ms Quinn: Yes.

Senator SHOEBRIDGE: But the last figure you were able to give me was from 2019?

Ms Quinn: The within Australia comparison, through our tables, we do after each budget. The comparison across the OECD system, which is the number that you mentioned, which is economywide, gets done as part of—I can check this—the OECD process of doing international comparisons. That is on a longer time frame with us integrating into the OECD's process.

Senator SHOEBRIDGE: Do you have any figure for the economywide R&D spend following last year's budget?

Ms Quinn: I can take that on notice. I have here the comparisons across countries in terms of the international. I don't know if any of my colleagues know.

Senator SHOEBRIDGE: If you're in a position to either read that on the record or table the comparison—is that from last year's budget?

Ms Quinn: No, it's from 2019-20.

Senator SHOEBRIDGE: Well, I've got the 2019.

Senator Ayres: I'm very happy to be contradicted by the official, Senator, but I think that there are two sets of figures we've been traversing here.

Senator SHOEBRIDGE: Maybe you can shed light.

Senator Ayres: If I'm wrong, please tell me.

Ms Quinn: No, that's alright.

Senator Ayres: The figure, I think, that the secretary is talking about that is provided after the budget goes to the first set of figures that you were talking about; what is the government's contribution. The department would be relying upon the ABS or whoever collects this economywide figure that is then used for the comparison purposes.

Senator SHOEBRIDGE: And the last figure that you've got for that is the 2019 figure.

Ms Quinn: That's right, 2019-20.

Senator SHOEBRIDGE: Minister, I thought you were—I think I would fairly say—spruiking the economywide outcomes, but if you haven't got the data and you haven't got the figures, how can you spruik the economywide outcomes?

Senator Ayres: What I said was that that figure that I was talking about, the 1.79 per cent figure—I wouldn't describe it as 'spruiking'. It is a challenge for government, the private sector and Australia as a whole that that figure is below—the comparisons aren't everything, but they are something.

Senator SHOEBRIDGE: Yes.

Senator Ayres: And that is a challenge. It has fallen to that level over last decade. I will be as interested as you and others in terms of how that index develops over time, but the last time it peaked was during the Rudd and Gillard period at 2.25 per cent, as I understand it, and that is not a ship that can be turned around quickly.

Senator SHOEBRIDGE: Does the government have a target? Do you want to get up to at least the OECD average? Is that the target?

Senator Ayres: I'm not aware of a target.

Senator SHOEBRIDGE: If so, where do I find it?

Ms Quinn: The minister for industry has talked about aspirations for R&D investment, and an aspiration is certainly to go above the OECD level. I have a timing—it is the Australian Bureau of Statistics that produces the cross-economy comparisons that feed into the international, and their next update will be in August 2023—this year—but clearly it will be dated. It won't be for the year 2023, but that's when the next release is in terms of comparisons.

Senator SHOEBRIDGE: Can you give me the definition of what the difference is between an aspiration and a target?

Ms Quinn: Clearly, the government doesn't have control of all the private activity in the system, and we know that the government's contribution is, at the moment, in the order of 0.6 per cent of GDP. Roughly, the private sector is in the order of 1.8 per cent, on the most recent data we have. So the government can put in place a set of policies and programs, but the decision-making for actually spending on R&D is in the private sector as well. So it's a bit hard to have a—

Senator SHOEBRIDGE: Being a cynic, I would suggest that an aspiration is something you could miss without getting into trouble, whereas a target is something you have to hit. Would that be a fair summary of it?

Ms Quinn: That's an opinion, but there are a large number of targets that people miss as well.

Senator SHOEBRIDGE: I'm not arguing against that. I'm not trying to interrogate what an aspiration is, but I think—

Senator Ayres: Not even in this forum, Senator Shoebridge, would I describe you as a cynic. A cynic would attribute the same deficiencies to a target as an aspiration. What we have in front of us is—

CHAIR: You're not calling Ms Quinn a cynic?

Senator SHOEBRIDGE: Yes, I think he just did!

Senator Ayres: a national task. The minister is not hiding from that national task. He has been talking about it publicly in a way that I think sets out the national challenge, and judgements will be made over time. I'd say it's not fair to have to turn that around over 12 months.

Senator SHOEBRIDGE: Minister, I'm not here on 1 June 2023 saying, 'Aren't you terrible! You haven't fixed it.' We're not having that debate.

Senator Ayres: But I think we agree that it's a national challenge.

Senator SHOEBRIDGE: But there is a concern I do have in the budget, and it has been expressed by, I think, a number of players, which is the slashing of the future funding of the Global Science and Technology Diplomacy Fund. This is a fund that was meant to be integrating us with global research. This is a fund that was meant to be linking Australian scientists and researchers with the best around the globe, and it's predicted to go from \$11 million in the 2023-24 budget to \$7.9 million, then to \$5.5 million and then stagnating at that level going forward. It has been slashed. Why?

Ms Quinn: The government has made a decision to reduce funding to that particular program. It is in the context of the broader funding arrangements. There are many ways that people collaborate and source funding for

collaboration across boundaries and borders, and so that's not the only mechanism by any means. There is a great deal of support in the system through accelerated programs and the like in the university sector and then in other places. The government did do a review of programs in terms of their effectiveness and the rate of return. It was put up as a saving in the budget process, but I wouldn't take that as a sign that the government has stepped back from the desire for collaboration across the system. It will be done through other mechanisms rather than that fund.

Senator HUGHES: Before I begin, I might table some of these documents. There are enough copies here for everyone, so you can all have a look at what we're referring to. I apologise to Minister Ayres that they're just on Australian made Reflex copy paper, not the lovely European paper Minister Husic uses to send his correspondence around the house.

CHAIR: I'll clarify as these documents are being circulated that they are letters from the minister to the Deputy Leader of the Opposition, which have been provided by the office of the Deputy Leader of the Opposition?

Senator HUGHES: Yes, they've been provided to me by the office of the Deputy Leader of the Opposition.

CHAIR: I don't see any issue with tabling those letters, so they are tabled.

Senator HUGHES: Thank you. If I can refer you to page 4, in a letter dated 5 September 2022, the minister responded on the status of outstanding Modern Manufacturing Initiative grants. He said:

On 26 August 2022, I announced the examination of grants has concluded. As a result, I was able to inform those successful grant recipients that contract discussions would begin.

If we come back to the first page of the documents, in further correspondence six months later, in February this year, the minister again responded:

I am working with my Department to ensure that the remaining grants are received by Australian businesses as quickly and efficiently as possible.

At this stage, there were reports that Minister Husic had requested weekly reports on the MMI grant process from the department. This week, another five months later, we've learnt that a significant number of grants haven't been honoured with contracts signed. The scorecard at the moment is eight from 16 have progressed. Can the department confirm that there was an instruction from the minister or his office to provide weekly reports?

Ms Quinn: We certainly did have a discussion about how we would keep the minister up to date with our processing of these grants. We have been providing regular updates. It's at least weekly, and if things change in the meantime, we update it. There's a standard dashboard that's provided as things change. So it's, at a minimum, weekly, but if things change in the middle, then we update it as well.

Senator HUGHES: Was the request for these meetings a verbal request or a written request? Was it from the minister or one of his staff?

Ms Quinn: There might've been multiple discussions. I certainly offered it in a discussion with the minister when we were talking through the administration of this program, but there would have been discussions at official level with his advisors as well. I'm not sure if there was a written request. We often just discuss how we can improve visibility of work programs, and we were working through a series of ways of increasing visibility. These are grants for which the delegate decision is within the department under the guidelines, and these are complex negotiations—the collaboration projects under the MMI, which I think you're referring to—

Senator HUGHES: Yes.

Ms Quinn: because there's a broader suite of grant programs. These are complicated, complex grant processes, and the way this program was designed in the guidelines left more of the negotiation, discussion and filtering until after the initial selection process and announcement than would be the case for other grant processes. As you would know, Senator, there's a whole sequence of events that happens fairly standardly for grants programs, but the time allocation for different parts will depend on the precise design. For these collaboration grants, which were specifically targeted at bringing together different entities to collaborate together to transform industry, there was quite a lot of detail that was left to the negotiation and execution stage rather than the initial filtering and application stage. That is one of the explanations for the distribution of time between announcing that funding was available and executing the grant agreements. Some external events have happened in that time that have made it difficult for some of the proponents to be able to provide certain aspects. There have been state government changes that have meant that some of the funding or policy arrangements under state programs changed. There were also changes in the business landscape for some of the collaborations. So it is a

more complex program. It has taken a fair bit of time to work through these agreements. In our latest statistics, nine from 17 have been executed.

Senator HUGHES: Did you say nine? I thought it was eight.

Ms Quinn: We've got nine as of today.

Senator HUGHES: On notice, could you provide a list of which are the full nine, rather than us going through them individually now? I appreciate that these are complex. They are across a range of areas. But just to go back—it was five months ago or so that the minister said he'd be looking for weekly reports. I just want to confirm that there have been at least weekly reports. That should be a minimum of 20 reports. How many have been prepared?

Ms Quinn: I'll pass to my colleague, but they go up regularly.

Mr Mason: There's a dashboard that's distributed once a week, so I'll have to confirm how many weeks it's been since that announcement, but certainly they've been going weekly.

Senator HUGHES: There's a dashboard, but not a full report of status, of where they're up to—detailed information for the minister?

Mr Mason: The information we provide talks about the progress on these particular grants.

Senator HUGHES: Do they have estimated completion dates or what the processes are to get them moving? We're obviously a significant amount of time away from when it was initially said that they were all granted, and there are complexities. But what do you think—we've got a year now down on this—the additional time was in getting these programs that have grants approved? What was the additional time that was added to this process when the current government introduced—which to some appear politically motivated—a review of the MMI grant program? I'm just asking the department about what time was added.

Senator Ayres: I absolutely reject the assertion that it was politically motivated. It is correct that there were announcements made by the previous government—announcements, I stress. As the secretary has indicated, the bulk of the work that is required over what are very large grant announcements occurs after the announcement. They're not the only set of announcements by the previous government where the work hasn't been done. This scheme was open for application through a significant part of 2021 but was announced in the shadow of the 2022 election. It was, as I understand it, administered by the former Prime Minister, who was then secretly engaged in a number of other portfolios—

Senator HUGHES: You've been in government for over a year and had two budgets, so how about we focus on this budget?

Senator Ayres: which was an extraordinarily improper arrangement. It was the decision of the minister that the government wanted to, with the department, review—and I'll let the secretary answer in terms of the amount of time that that all took—but it was a decision not politically motivated; in fact quite the reverse. It was motivated by ensuring that what we didn't have was an overhang of the previous government's impropriety in terms of administered public funds infecting decisions of the current government. We want every single dollar in this area to count.

These are very substantial amounts. You wanted to get these on notice—and I won't go through the whole nine of them—but they are very substantial amounts that go to very important projects: Sovereign Combat Systems Collaboration Centre—\$22.6 million; Gilmour Space Technologies—\$51.46 million; and Arafura Resources' rare-earth project—just under \$30 million. These are very significant expenditures of public money, and the government wanted to ensure that the program itself was constructed in a way that meant we could properly proceed with it. Once that work was done, contract negotiations—which, as the secretary said, are complex and go to very large sums of public money, have taken the time that they've needed to take. I'll let the secretary answer in terms of time frames and all that sort of stuff.

Senator HUGHES: Minister Ayres, I will just address some of the points you made. I think we can accept the ABC is not a great fan of the former Morrison government, but even the ABC has said that the MMI process was independently assessed. Even Minister Husic has said—like you, making points: 'Unlike some programs under the former Liberal and National government, the MMI grants were independently assessed.' When your own minister is acknowledging that every single one of these grants was independently assessed and was something that should be progressed with, again I ask the question to the department: specifically what was the time added, what was the delay caused, by this review that stalled the rolling out of these grants when the change of government occurred?

Ms Quinn: The government came into power in May, and, as Minister Husic indicated, the review was publicly announced to be completed on 26 August, so roughly three months.

Senator HUGHES: So it was a quarter of a year, and now we're almost a year on and we're still at maybe just over 50 per cent having been progressed to the point of signing a contract.

Ms Quinn: Yes.

Senator HUGHES: From a productivity perspective, what are the costs here? What has been lost? How many jobs haven't been created? What has been the economic loss caused by having this what is now unnecessary delay for the applicants? We don't have to be saying, 'We don't have modelling for how it affected Newcastle that a program didn't go ahead,' but applicants' businesses that had been told that this was to go ahead had a three-month delay. There are a lot of businesses that would struggle to maintain their focus on a project when they're given a green light and then told, 'Hang on; now we're going to review it.' There are a lot of banks that would say, 'Maybe your finance isn't so—'

Ms Quinn: I might just go through it at the high level, and colleagues can fill in the detail if that's the desire of the committee. From late August, the department then engaged with the successful applicants. The process here is that there has been very close engagement with the grant applicants, because the guidelines were very clear about what would need to happen in order for proponents to receive the funds.

Senator HUGHES: When you say 'the guidelines', were they guidelines when they applied for the grant?

Ms Quinn: Yes.

Senator HUGHES: So the guidelines wouldn't have included, 'If there's a change of government, there will be a three-month delay in the middle of the process'?

Senator Ayres: Senator, when a government perverts the public processes and uses money for partisan purposes that is public money in some programs—

Senator HUGHES: Minister Ayres, I'd be very careful right about now.

Senator Ayres: In some programs—

Senator HUGHES: I would be very careful right about now.

Senator Ayres: What I'd like is not to be interrupted. When a government does that, it creates a risk for the government. It damages the government's perception—

Senator HUGHES: A bit like \$275 coming off power bills.

Senator Ayres: It creates a challenge that has real-life consequences. It means that—

Senator HUGHES: Funny! Ask people paying their energy bills—real-life consequences.

CHAIR: Senator Hughes!

Senator Ayres: When a government has so debauched itself like the previous government did—

Senator HUGHES: Wow!

Senator Ayres: that it used public money to fund commuter car parks where railway stations didn't exist, that were announcements in marginal seats, then it is entirely proper for a new government with a commitment to public accountability—

Senator HUGHES: Ha, ha, ha!

Senator Ayres: to ensure that public money is being expended properly. These are very large amounts of money that are taxpayers' money.

Senator HUGHES: But they're taxpayers' money that you're prepared to get less rate of return on.

Senator Ayres: The decision of the government is very much framed by the experience that we had looking at the previous government's rorted grants programs. An assessment was done over the course of three or four months, and we were satisfied that this program could proceed. And if that has created an interruption, that is entirely proper. And it does reflect the real-life consequences of governments losing their way in terms of public accountability and governance standards like the previous government did.

Senator HUGHES: And I know—

CHAIR: Senator Hughes—

Senator HUGHES: I still have questions.

CHAIR: I know. That's fine. I just want to get some advice for the benefit of Senator Whish-Wilson, who's on the line, who has questions for the Space Agency so that those officials are here when appropriate. Senator Hughes, you've been going for about 15 minutes. I know you have more questions—

Senator HUGHES: I do. Can I just finish off on a point there?

CHAIR: A couple of minutes, and then we'll go to Senator Whish-Wilson.

Senator HUGHES: Yes; and then I can come back. Some allegations were made just then. Minister Ayres appears to be at odds with his own minister, Minister Husic, over the delays. I scoff and laugh openly at the claims of transparency when Minister Ayres knows incredibly well how many OPD requests et cetera are blocked by his government in conjunction with the Greens to avoid transparency. In fact, if we want to talk about marginal seats—the refusal to answer questions over why nine out of 54 blackspot programs that were hand-picked by Minister Rowland were in Eden-Monaro. So be very careful, Minister Ayres, on your assertions.

Back to the department though, and perhaps Minister Ayres, after those comments, may like to offer an apology to some of these companies that were impacted by the delay. Are you aware of any projects that had to reduce the scope of the grant they were originally given because of this three- to four-month delay?

Ms Quinn: I'm not aware of that type of issue. I was going to step out what we've been doing since 26 August. We've been implementing the guidelines that were the guidelines that the companies were aware of when they provided their grant applications, which set out what would need to happen at different stages. Those guidelines were very clear that companies could provide indicative information and intentions as part of the application process, but that, at the end, if selected, they would then have to go through a due diligence process, including engaging with the department, with the legal and financial experts, to verify and to understand more details about the process. That was a decision in terms of the guidelines to allow more indicative information than would usually be the case.

Senator HUGHES: When was that done? Before the election or after the election?

Ms Quinn: Before the election; it was part of the guidelines issued by the previous government. The guidelines had a set of companies coming together in a collaborative nature to put joint projects into this particular program. It was always clear in the guidelines that there would be a due diligence process, particularly given the size and the complexity and the type of grant mechanisms—

Senator HUGHES: Again, if this was before the last election—

Ms Quinn: That was the plan that was part of the guidelines before the election. What the department has been doing has been implementing those guidelines. This is all the department implementing the previous government's guidelines.

Senator HUGHES: Right.

Ms Quinn: We were required to go through a due diligence process after the announcement of the grants. That was clear to the proponents that would be the process that they would do. Just a concrete example: they were not required to provide financial assurance of their funding or of their governance structure or of their entity's collaboration arrangements prior to the applications being assessed. That would normally be the case for other grants, but for this one it was different. The process since August has been the department going through these programs with external assistance in terms of legal and commercial understanding. We're going through diligently getting commercial advice and making sure the company has met the guidelines as set down, and that they were clear about the contract negotiations and the processes involved. That has taken some time. Some of that has been because the companies have asked for changes in the approach because the commercial situation has changed. Sometimes it's because some of their partners have changed and they have had to look again at their collaboration—they might have had three entities and one dropped out—

Senator HUGHES: Would any of those companies that dropped out, for example—and we know certainty in business is very important when you announce a review to a grant that has already been given—lose partners because they had three to four months of uncertainty as to whether it was going to continue? Are there any projects that have stalled or that have now decided to withdraw from this process because of that uncertainty created over that review period, which wasn't part of the original guidelines?

Mr Mason: I might pass you to Mrs Chard, who has been leading the program of negotiations.

Mrs Chard: I'm head of division for grants, delivery and business services in the department—no, we don't have any indication that any of the changes in scope to the projects or the nature of project partners have changed owing to the time period of the government's review or caretaker.

Senator HUGHES: But there's still a number that are outstanding, so we don't know about nearly 50 per cent of them. Maybe you can take it on notice for me, because I know you want to move on. Have there been any changes in scope? Have any projects stalled or been delayed? What, if any, are budget-overruns of projects that are now going to cost more than they were originally projected to in the grant application?

Senator GREEN: I have two clarifications about evidence from questions that Senator Hughes asked. On the silicon quantum computing process, can I clarify that a member of the department has been an observer at the board meetings through the period of vacancy from April 2021, in addition to other mechanisms for engaging as a shareholder? My colleague wanted to update the welcome to country evidence as well.

Mr Mason: Yes. The dates I had were a little out of date. To 11 May 2023—for the financial year to date—we have spent \$3,477, and that covers five events.

Senator HUGHES: Is that from 1 July to 11 May?

Mr Mason: Yes.

Senator HUGHES: We've got to put questions on notice in later this week or next week, but maybe you could keep it until 30 June and then give us the full financial year figure.

Mr Mason: Yes. We're happy to do that.

CHAIR: I call forward officials from the Australian Space Agency.

Australian Space Agency

[11:23]

CHAIR: We've got about seven minutes here and then we'll go to the break. Senator Whish-Wilson, if you still have questions, we can come to you after the break. We're coming back to program 1.1 after the break.

Senator WHISH-WILSON: I'll try to wrap it up in seven minutes. It's my first line of questioning in this area, but I have some around waste management in the space program. I understand NASA and the European Space Agency have estimated that about 100 million pieces of space junk are floating around in orbit, and in some form or another they'll make their way back to earth—most likely in the ocean. There's growing interest and research in this area. My understanding is that Australia's space policy is focused on tracking exiting space debris and minimising the potential for future debris creation. Have you set any circularity targets, especially in the civil, because we're on the civil space strategy?

Mr Palermo: Let me start by saying that one of the pillars of the agency is Responsible. We want to be, and aim and strive to be, a responsible space nation. The technical area you refer to is what we call 'space situational awareness', or SSA. This is the ability to understand the space environment, which, as you accurately point out, is getting more congested and contested. Australia has two key roles to play. Because of our geography, we are able to view a large portion of the sky. Earlier this year we saw a commercial facility in SSA open up on the west coast while we were launching one of our infrastructure investments in Tasmania, demonstrating that ability to track. In the Australian ecosystem, itself, we have niche technology such as the largest-aperture passive radar to assess these. Right now, we are working on what are the focus segments, how do we develop these capabilities and how do we contribute to improving that characterisation of space environment. On a policy front, we represent the nation at what's called the United Nations Committee on the Peaceful Uses of Outer Space, and via that, we are working on the long-term sustainability guidelines. Additionally, as the regulator for space activities in Australia, when an Australian entity is looking to launch a satellite into space, there are certain debris mitigation guidelines they need to correspond with.

Senator WHISH-WILSON: Thank you. I was just doing some reading up on the regulation architecture and our international agreements. I note the European Space Agency has stated that it intends to be debris neutral by 2030. What's the scope for a similar target to be implemented for Australian space projects?

Mr Palermo: We have not yet implemented a target. We're actually right now working with international partners on a sustainability framework, you could say, for space matters. As I said, in our regulations or rules there are debris mitigation guidelines. Part of the work—if I look at our lunar rover program, for example—working with international partners about what sustainability looks like, I'd say this is an emerging area of research for us. We're going to go back to our Responsible pillar as more Australian entities launch satellites into space. We don't want to exacerbate those issues.

Senator WHISH-WILSON: It's an emerging area of interest for me, too. I know it's fairly new, but I was quite surprised at just how much junk is up there, and it's expected to grow, especially with the development of the civil sector. Have any risk assessments been undertaken—for example, in relation to the marine environment? I note the minister for the environment made some comments recently at the Ocean Summit in Sydney about discussions around potential space junk and the impacts on the ocean.

Mr Palermo: We're working very closely with the Department of Climate Change, Energy, the Environment and Water, particularly as we look at launch activities in Australia, as part of wider government consultation on future regulation. To date, no Australian launch activities have put debris into the ocean from launch activities.

On the re-entry of large vehicles, certainly that happens from international partners, and there are certain parts on the Earth they target for re-entry. Part of our role working with UN COPUOS is on what are the best practices for the future.

Senator WHISH-WILSON: Have you estimated—are you able to estimate—how much waste we're going to have by 2028 or 2030 or whatever? Has there been any work done on that?

Mr Palermo: We haven't done any projections on that at this stage.

Senator WHISH-WILSON: Would you expect to see any changes to the Space (Launches and Returns) Act 2018 in the near future based on the work you are doing? Is that where this might go, or is it going to be an internal policy?

Mr Palermo: It's under consideration. We have funding to continue to enhance the regulations in Australia, which will keep us as a responsible nation. We need to go through that analysis to see if actual changes are required.

Senator WHISH-WILSON: If I could just be clear: are there standardised definitions of waste that are shared across the treaty partners and how to deal with it? Is there an international regulatory framework that we have to comply with on this, or do we develop our own set of principles and targets?

Mr Palermo: Australia is a signatory to all the space treaties. Today, the governing framework is the outer space treaties. We're a signatory to those. There's a push internationally and domestically to see how these treaties can be adopted into more-specific enabling regulation. The US, the UK and other jurisdictions are looking at that. As part of our space Five Eyes discussions we are looking at how we do that, and also in the Quad space working group. We've identified this as an area amongst Quad partners to ensure we continue to have access to space. We need to work in this area, so it's a very active area of work. We don't yet have proposals for the regulation.

Senator WHISH-WILSON: I look forward to keeping touch with you on it over time. Thank you.

Proceedings suspended from 11:31 to 11:46

CHAIR: The committee resumes with Industry's program 1.1. Senator Hughes, you have the call.

Senator HUGHES: I want to return to the National Reconstruction Fund. Ms Quinn, last time I was here—and everyone loves my attendance at Economics, don't they, Chair—it was a little bit perplexing to hear that the department had initiated no modelling for the NRF with regards to inflation. Since last estimates, has there been any analysis or any modelling done with regards to the NRF and any inflationary pressure it might put on the economy?

Ms Quinn: If I recall my evidence from last time, it was that when we think about the NRF and how it fits into the economic landscape, it was our professional judgement that it wouldn't add to inflationary pressures, partly because of the nature of the design of the policy to increase supply and the timing and sequence of the actions. I also believe my colleagues at the Australian Treasury provided the same answer in response to the same question.

When I was asked whether we'd done any explicit economic modelling of that case, I answered, 'No,' which was true. What I didn't have an opportunity before to say was because the answer would be self-evident that an increase in supply would not add to inflation. We didn't undertake any further detailed analysis because it's very clear what the outcome would be.

Senator HUGHES: The IMF has specifically stated—and I can table an article here, though I've only got three copies of this one—that off-budget programs such as this would contribute to inflation. Were they wrong?

Ms Quinn: I'd be happy to look at the precise elements of the IMF, having worked quite extensively with them over time. They may well have been talking about other programs rather than the NRF. It's not necessarily the budget nature of a program that's going to add to inflation or not. Inflation is caused by an imbalance between demand and supply in the economy. If an economy is at full capacity and you add to demand you'll add to inflationary pressure, and the monetary policy framework of the government through the Reserve Bank adjusts demand in response to that pressure.

The NRF is about increasing supply in the economy, and I'm sure if I had the time I could look through the IMF reports where they talk about increasing supply and capacity in the economy, it would be deflationary for an economy. That is standard macroeconomic understanding.

Senator HUGHES: Don't you think after being asked questions with regard to specific modelling around inflation, and considering we are in an inflationary crisis, it have been prudent for the department to have undertaken some modelling in this area?

Ms Quinn: As I said, we could have undertaken modelling. It probably would have been an inappropriate use of government funds, partly because—

Senator HUGHES: It might have given confidence to the Australian people that their mortgages weren't going to keep going up as inflation continues to rise.

Ms Quinn: We did the analysis of the design of the program and how it would impact on the Australian economy and on what time horizon et cetera.

Senator HUGHES: Did that include inflation?

Ms Quinn: It did include the implications of inflation. We worked with our colleagues at the Australian Treasury and others in the system. Treasury would have incorporated this information into their budget forecasts et cetera. At no point did we look at the design of the program and see that it unnecessarily added to demand relative to supply, because the intent of the program is to increase supply. So that analysis is fairly straightforward. It doesn't necessarily require undertaking complicated modelling. Modelling is an economic framework where the assumptions you put in often drive the outcome. I have actually got deep experience and background in economic modelling. I have never seen an increase in supply result in an increase in inflation.

Senator HUGHES: Maybe I'll ask Minister Ayres, because I'm a bit astounded that the department thinks it is an inappropriate use of money to have a look at whether a program is inflationary. Is that the government's view?

Ms Quinn: That is not my evidence.

Senator HUGHES: You actually said it was an inappropriate use of money to undertake modelling.

Ms Quinn: For this particular program to undertake an exercise to demonstrate something that we already know to be true.

Senator HUGHES: You are assuming it to be true. The IMF disputes that.

Ms Quinn: I don't believe that's what the IMF was saying. I haven't seen the IMF particularly talk about the NRF. They were making a general statement—

Senator HUGHES: About all these off-budget programs that add inflationary pressure.

Ms Quinn: That add to demand. This is about increasing capability in the economy. It's about increasing funding in the system.

Senator HUGHES: The RBA said yesterday that \$180 billion—

CHAIR: Senator Hughes, I just noted that Ms Quinn hadn't concluded her answer, so I want to do two things. The first is confirm that the committee will table the document that you circulated and the second is just see whether Ms Quinn had concluded her answer or not.

Ms Quinn: Yes, I have.

Senator HUGHES: Minister Ayres, is it the government's view that it is not appropriate to undertake in this current environment specific modelling around inflationary pressures that programs may or may not put on the economy, particularly in light of the current economic situation we find ourselves in where inflation is directly related to people's mortgage repayments?

Senator Ayres: I'm just astonished that you persist with this argument.

Senator HUGHES: I'm asking for your view on whether inflation modelling shouldn't be undertaken.

Senator Ayres: I'm also astonished that you just continue to interrupt witnesses' evidence as a matter of routine, involuntarily or not. I am astonished that you persist with this argument. It is demonstrably untrue. Thank you for tabling the article containing this argument. Even at a stretch, the article which reports on the report—you haven't provided the report—doesn't say what you said it says. It talks about 'judiciously' using these funds. It is self-evidently true that not only are investments in productivity, technology, automation, resource optimisation and industrial capability necessary because of the position that the Australian economy finds itself in after a decade of deindustrialisation—

Senator HUGHES: Just a decade, was it?

Senator Ayres: but they are also demonstrably not inflationary. Nobody serious prosecutes that argument. It was refuted. I haven't reviewed the *Hansard* of this round of the economics committee's evidence on these questions, but I understand that Secretary Kennedy went into this discussion in response to some questions from coalition senators and refuted this strongly. It's basic economics. I understand that the coalition wanted to oppose the National Reconstruction Fund. Even in the United States, where politics is so polarised, the—

Senator BRAGG: Point of order. Sorry. I know I've spoken to this, but I'm not sure—

Senator Ayres: It is absolutely relevant.

CHAIR: Senator Bragg, the minister is responding to the question.

Senator Ayres: Well, the question is: what is the government's view on whether this is inflationary or not? The government's view is that—

Senator BRAGG: What does it have to do with the politics of the United States, though?

Senator Ayres: What's it got to do with, you see, is hyperpartisanship and where these questions come from: a lack of regard for the public interest and an incapacity to understand the economic and industrial challenges that confront the country. Even on the other side of the earth, in the United States, where politics is so polarised, Republicans and Democrats could come together to resolve some of these challenges, and you lot can't do it.

Senator Bragg interjecting—

CHAIR: Okay, Minister and Deputy Chair. I think where the minister may be headed in relation to the US is perhaps to talk about the US Inflation Reduction Act and investment in manufacturing and how this is being viewed around the world.

Senator HUGHES: Thank you, chair, for trying to answer the question on his behalf, but it's actually to that answer.

CHAIR: I think that that's relevant, but, just for the purpose of my objective, which is to keep things moving, I wonder if I could return to Senator Hughes just to continue questions, and we'll see if we could move through this more quickly. We do have another break coming up. Senator Hughes.

Senator HUGHES: Thank you. Senator Ayres, thank you for your commentary on being me here in estimates.

CHAIR: I intervened on your behalf on the basis that we'd get back to questions.

Senator HUGHES: Toxic masculinity is alive and well.

CHAIR: Senator Hughes, I intervened on your behalf there to get you back to questions. Senator Hughes.

Senator HUGHES: Well, that would be great. Moving away from inflation, has any modelling been done on the National Reconstruction Fund indicating that this program is likely to increase productivity?

Ms Quinn: The intention of the National Reconstruction Fund is to diversify and transform Australia's industry—to provide funding for enterprises to do that. It will provide capital through loans, equity or guarantees, as set out in the legislation. All of that goes to increasing the opportunities for Australian business. The precise outcomes for the NRF we will see. It will be independent decision-making around projects. People will go to the NRF seeking support. Their intention will be set out in the investment mandate, which will be to have a positive return to cover the costs of borrowing the money. So in that sense it will be positive to the budget over time, as we had a conversation about earlier. With increasing capital going to industrial processes that pass the commercial benchmarks that the NRF will put together, most analysis would suggest it would increase productivity.

Senator HUGHES: So has there been analysis done? Have you provided advice, analysis, file notes, briefings or any other materials to the minister or his office on what impact this program will have on productivity?

Ms Quinn: We have talked through what the implications of the program would be, which would be to increase productivity over time through funding of capability and the industrial processes.

Senator HUGHES: So just verbal conversations?

Ms Quinn: That would have been part of our briefing process on this policy, yes.

Senator HUGHES: Okay. There was a gender impact assessment conducted for the NRF between the Office for Women and the department—that's correct?

Ms Quinn: That's right. Budget processes are required to have certain steps in any kind of budget analysis, and one of those is a gender assessment.

Senator HUGHES: So is that done by the department as a standard thing with the Office for Women, or is that something the minister specifically requested for the NRF?

Ms Quinn: It's standard for pieces of legislation and cabinet considerations of a certain size.

Senator HUGHES: How many meetings does that normally take? What's the process there?

Ms Quinn: I'm happy to defer to my colleagues.

Ms Luchetti: I'll ask my colleague to come to the table.

Ms Manen: Sorry, Senator. Can you repeat your question?

Senator HUGHES: I'm interested, with regard to the gender impact assessment, in how many meetings occurred with the Office for Women and what was the process that was undertaken with regard to the gender impact of the NRF.

Ms Manen: I don't have the exact number of meetings, but there were a range of conversations and meetings that were held between the department and the Office for Women over—

Senator HUGHES: Was it one, five, 10 or 20—ballpark?

Ms Manen: I'd have to take the exact number on notice, but it was several over a period of time during the policy development process.

Senator HUGHES: I'm just intrigued, and quite honestly shocked, that we have several meetings with the Office for Women to conduct a gender impact assessment and, at a time when we have a significant cost-of-living crisis, inappropriate use of funds—

Senator Polley interjecting—

Senator HUGHES: not required and general assumptions, that this would not have inflationary or productivity modelling. How do you say to those Australians who are facing a significant cost-of-living crisis that we are more interested in doing a gender impact study on the National Reconstruction Fund than we are on what its impacts will be on productivity and inflation?

Ms Quinn: Can I step back and talk about the process for advising on—

Senator Polley interjecting—

Senator HUGHES: I can't hear the answer.

CHAIR: Order! Ms Quinn, you have the call.

Ms Quinn: Can I step back and talk about the process for advising on the NRF. There's a very distinct role for different types of analysis on different types of policy processes. We did provide advice on the economic implications of the National Reconstruction Fund through a cabinet process. We provide analysis on all programs in terms of the economic implications when our ministers take things through cabinet. They are assessed as well through that cabinet process in terms of inputs from our colleagues across the system. International look at it from an international perspective, and the Department of the Treasury looks at it from a perspective. All of that analysis was done with the National Reconstruction Fund.

You've asked a very specific question about very specific modelling. I presumed—and my presumption might have been incorrect—that you were asking about general equilibrium modelling or macroeconomic implications modelling, but perhaps my presumption was incorrect. That sort of analysis answers some questions and is highly valid for certain types of questions. That is typically done by the Department of the Treasury when thinking about the economic policy stance of things. We do a regulatory impact statement for all legislation and all major programs. That was done in this case.

Whether there's a need for doing specific, detailed macroeconomic analysis on the different programs is a professional judgement of the system—not just the department of industry but our colleagues in the Department of the Treasury, Finance or wherever else—about what's needed for appropriate government decision-making. In this instance, we didn't need to go to that level of specificity because it's self-evident from the frameworks used in those macroeconomic models what the answer would be. In that sense, it would be positive but not significant in terms of inflationary detraction. The concerns in terms of priorities of analysis is that there were other questions that had higher priority that we needed to allocate our internal resources to, and we make those judgements all the time.

Senator HUGHES: I'm happy to move on because, clearly, we're not getting anywhere. We know there's no specific modelling on inflation and productivity, but there is gender modelling. I would actually ask Senator Polley to withdraw an interjection—

Ms Quinn: Just to be clear, there was no gender modelling—

Senator HUGHES: Well, gender consultation.

CHAIR: Order!

Senator HUGHES: When I asked a question about women, she called across the table, 'They don't care about women.' I'm a woman, I'm a mother of a daughter and I absolutely reject your claim and I ask you to withdraw, Senator Polley.

CHAIR: I am just going to move the discussion forward.

Senator POLLEY: I'm happy to share the call.

CHAIR: I'm now going to proceed to strict 10-minute blocks. There are a number of senators who are seeking the call. I'm going to go to Senator McDonald.

Senator HUGHES: I did ask for a withdrawal of the comment.

CHAIR: Are you—

Senator HUGHES: I'm asking for Senator Polley to withdraw her comment that she made—which would have been picked up by mics because I could hear it clearly over here—that I don't care about women. That's why I ask that question.

CHAIR: Before you go down that path, Senator Hughes, I note that you also made some comments to the minister which I viewed as unacceptable before.

Senator HUGHES: I'm happy to withdraw anything the minister is insulted by. Everyone can withdraw everything about the imputations the minister has made around me interjecting. If everyone would like to withdraw we would all be happy campers.

CHAIR: I think the minister knows that.

Senator HUGHES: I'm not going to withdraw and allow this.

CHAIR: I obviously don't wish to go down this particular path. You're insisting on a withdrawal?

Senator POLLEY: I'm happy to withdraw the comments that I made in relation to the former government's record on women.

Senator McDONALD: Minister, I have some questions on the Entrepreneurs' Program. The budget cuts the Entrepreneurs' Program, replacing it with the Industry Growth Program. I guess I should ask you to confirm that that is correct first?

Senator Ayres: It's true that the Entrepreneurs' Program is closed and the Industry Growth Program is the new program. There are some differences, and we can go to those if you like.

Senator McDONALD: That's my next question. What are the key differences in the delivery and design of the program?

Senator Ayres: There was some evidence before, and I think Mr Purtell and others from the department might go to some of these questions for you. The Entrepreneur's Program was a program that needed reform. At the very least, the ANAO report, the auditor's report into the fund, said at the very least the design and conduct of procurement did not comply with the Commonwealth Procurement Rules. There was a series of other criticisms. The government's reforms of the program, the new program, is a \$392 million program over the forwards. It is directed towards dealing with the challenge of commercialisation, mostly for start-ups and for new Australian technology. But it can go more broadly than that. It is designed to assist those kinds of project proponents to get through what is called the valley of death. It's very florid language that the economists and commentators use. It means the challenge where there is no revenue coming in.

Senator McDONALD: I'm sorry to interrupt. I was really looking for the compare and contrast between the two programs. Should I turn to Mr Purtell for that kind of specificity?

Senator Ayres: You should just let me finish, frustrating as it might be, and we can then go to Mr Purtell.

Senator McDONALD: I had a specific question and this is not answering that.

Senator Ayres: You went to what are the differences. They go to the objectives of the program. It's to deal with that challenge, and doing that through advisory services, much of which the Commonwealth is bringing back in house, building the capability of the department to be able to on these questions; and secondly, with grant funding.

Ms Quinn: At a high level there are some elements that are continuing from the Entrepreneurs' Program. One element, for example, is that the Entrepreneurs' Program funded the business.gov.au and information provision service that the government provides. That is continuing. That's continuing. I mentioned earlier that under the Entrepreneurs' Program there were different elements: the accelerating commercialisation and the growth and innovation connections. Drawing on the evidence of the accelerating commercialisation, much of the design of the new Industry Growth Program is drawing on that element of the Entrepreneurs' Program. So you could suggest it as closing and opening or continuation for that element of the program. I'll throw to my colleague for any other information.

Mr Purtell: I would probably highlight five differences. The first one, as the secretary alluded to just then, is that the objective of the new Industry Growth Program is a combination of commercialising, helping Australian

industry to commercialise innovation, and helping SMEs and start-ups to grow in the NRF priority sectors. The commercialisation is a continuation, as the secretary said, but the growth in the NRF priority sectors is a new focus.

The next differences would be the way we are managing the advice. Partly informed by the ANAO audit that the minister mentioned, we will be directly contracting the advisers that will be providing the advice. As I mentioned earlier this morning, there will be people with significant industry and commercialisation experience. We will be directly contracting them, and that enables us to provide more guidance and also care to those advisers. Part of that is also the position of the executive director, which I mentioned this morning, who will have a leadership role. If you go back many years, there have been different iterations of these programs that have had a role like this Executive Director, but right now we don't have such a role. That's something we're creating.

I think it's also worth mentioning the industry partner organisation role. I mentioned that this morning. That's a second source of advice, based on not-for-profit organisations with experience in the sectors or similar experience. Again, that's new, something that we don't have that in the Entrepreneurs' Program right now.

Finally I'll just mention—we can go into detail if you like—the quantum of the grants, the different scales of grants for different purposes, is different between the different streams of EP and what we have now with the Industry Growth Program.

Senator McDONALD: Minister, you said the program is bringing roles back in house. Am I correct in understanding that this is replacing industry experts on the ground with departmental officials in Canberra?

Senator Ayres: As the official just outlined, and I indicated, there will be a substantial effort to build capability in the department to do this. I don't want to be critical of work that was done by industry partners.

Senator McDONALD: Specifically in Canberra is my question. Here's a question and an answer and somebody who can answer it. Ms Pickworth, could we ask you?

Senator Ayres: You should allow me to finish answering the question.

Senator McDONALD: If you will answer it I would be delighted. I have limited time.

Senator Ayres: You asked me whether it involved essentially insourcing this work. The second part of your question was about the location of the work. There will be a substantial insourcing of capability here. That is a very important part of the program. In terms of the location of officials and staff, that will be a matter for the executive director. The department may have already made some decisions. It is certainly not the intention of the government to have the principal part of that work being conducted in Canberra, because it will need to be conducted in those regions and industrial areas of the country where it will be most effective and where it's most needed.

Senator McDONALD: Mr Purtell, are you the executive director for this program?

Mr Purtell: I'm not the executive director. We have opened the recruitment for that role just in the last few days. While that person will be a senior employee of the department, we want someone with very extensive commercialisation and industry experience. That's why we've gone to market for that role.

Senator McDONALD: I'm just trying to clarify how many jobs were on the ground under the previous program compared with how many public servants we will have employed potentially in Canberra to fill those roles?

Mr Purtell: In terms of public servants, the executive director role that I just mentioned is an additional public servant, albeit quite a specialised role with a specialised background skill set in commercialisation in industry. As the Minister mentioned, we have got a small amount of additional resources directly as public servants to build up commercialisation policy element of this program. But the advisers who will be providing advice to industry won't be public servants. They'll be the people that I mentioned in the first part of my answer, who will be directly contracted by the department. We do not expect those people to be in Canberra. There might be one or two in theory, but as the Minister mentioned, very much like the footprint of the Entrepreneurs' Program right now, they would be around Australia where they're needed.

Senator McDONALD: Specifically, in the Darwin Innovation Hub, which will be terminated on 30 June 2023, there were five full-time equivalents underneath that role. That program generated \$200 million in commercialisation of projects and incubated research projects through that very challenging period of initial funding and research.

CHAIR: Senator McDonald, before you continue, the official is wishing to clarify something as you go.

Ms Pickworth: There are two programs that have got similar names. I'll throw to my colleague to provide a bit of clarification about the two programs.

Mr Purtell: There's been some confusion in the media about this as well. Our program, which as you mentioned is fairly well known, is the Entrepreneurs Program. The Department of Employment and Workplace Relations has for some years had a program called the Entrepreneurship Facilitators Program, and I believe that the Darwin example you're referring to is, in fact, from that program, and so, in fact, is nothing to do with our Entrepreneurs Program.

Senator McDONALD: Thank you, I'll leave that line of questions then. The Ai Group called the new Industry Growth Program 'a cut-down, half funded, government-run version of the existing Entrepreneurs Program, which has provided support for smaller businesses to strategically plan for growth and expansion'. The group also said: Government-run programs providing direct support for business rarely achieve their objectives.'

Was industry consulted about this cut in the budget?

Ms Quinn: I'll clarify that there was an addition of funding through the process. When you look at the elements of the EP changes and the elements of the Industry Growth Program plus the Business Support Program, there's an increase in funding over the forwards, not a decrease.

Senator McDONALD: What I'm trying to get to is whether industry was consulted in this move from the Entrepreneurs Program to the new program, which from my understanding will provide additional public servants. I'm trying to establish: was industry consulted?

Mr Purtell: I can answer that question. We're always in my team talking to industry about what industry needs in the commercialisation space and in the broader growth space. As the secretary noted—and this is clear in the budget tables—there's an increase. With the closure of the Entrepreneurs Program and the Industry Growth Program, if you subtract the first from the second, there's an increase in funding over the forwards, so I don't accept it's a cutback version. In terms of talking to industry, it's probably worth noting that the Ai Group was and still is one of the partners for the current EP. One thing to say is that, as part of engaging with those delivery partners—and, of course, all their contracts will terminate on 30 June, as announced previously—Ai Group is one of those whose views on the sector we hear through the current Entrepreneurs Program, which the group is a delivery partner for.

Senator McDONALD: How many currently outsource jobs under the previous program will this affect?

Mr Purtell: I'm not sure I have that figure to hand.

Mr Luchetti: Currently, under the Entrepreneurs Program we have 200 people facilitating and working with the delivery partners.

Ms Pickworth: To build on what my colleague was saying before, with the current delivery partners the shift in the new program is to directly contract those people, so it's actually removing the delivery partner piece, but the advisers themselves continue to be directly contracted in. As Mr Purtell was saying, they don't become public servants. One of the things in the program design is to be quite intentional about how we bring in industry expertise so that we do that in a way that the people providing advice to industry bring a level of currency and knowledge about industry. Part of the design of the model has been to try to balance that whilst building the capability within the department and the Public Service around commercialisation expertise.

CHAIR: Senator Pocock.

Senator DAVID POCOCK: Thank you for this, Senator Hughes. It was interesting that the IMF were also urging the government to reshape the stage 3 tax cuts and look at capital gains tax discounts, just as an aside.

Senator HUGHES: Clearly, not everyone agrees with all of it. They're already legislated.

Senator DAVID POCOCK: I'd like to ask about the new Industry Growth Program. I'd be interested to hear where that's up to in development, the time line?

Mr Purtell: It was announced in the budget, as you know. We are looking to opening that program in September to advice first and foremost because that's the core of the program. We have a timeline we're working towards that would enable us to deliver that opening, and then grants would effectively follow very soon after that. There are a number of arms to it. I mentioned this morning that the position of executive director of the Industry Growth Program, which is pretty critical, has been advertised. That process—applications, selection et cetera—will take place over the next few weeks. In parallel, we will be procuring the services of those individual advisers that we've talked a bit about just now through a procurement process so that they're in place by September. I've mentioned the industry partner organisations. That's a third process through which we will bring onboard those experts.

We'll need to set up an independent assessment committee as well. They don't really need to be ready until a little bit later in the year, the way the grant system works. All of those things are happening in parallel for a late September start.

Ms Quinn: I might just add that the guidance, the grants and the program will be consulted on as well. That will be released by government shortly. That will be an opportunity for business to look at the guidelines to provide their formal input on the precise details of elements around the grants side of the program. As my colleagues have mentioned, there's the advice component, which is about getting a suite of advisers—a national network of advisers—to provide industry advice. There's the second source of advice, which is around the not-for-profit organisations that can help in an ecosystem networking sense, which we'll do a procurement process for. Then there's the grants process. It's a whole sequence of events and we are moving as fast as we can.

A thing to note as well is that with the closure of the entrepreneurs program the people who were in that program, which has still got the sequence and steps, will continue on their journey. Even though the program doesn't accept new entrants, those that are in the system will continue with their grant processes and their advice so that the overlap is an overlap between the two programs.

Senator DAVID POCOCK: In terms of the consultation and then having an advisory group, what sort of role do you envisage for existing organisations? The Canberra Innovation Network are already working with ANU, CSIRO, UNSW and UC on start-ups. How do you see them fitting into this new stream of work for you?

Ms Quinn: As my colleague talked about, there's an opportunity for not-for-profit organisations that have that capability. We'll have a procurement process where they'll have an opportunity to put forward their case to be part of the program. There's a whole range of organisations that are doing the connections between start-ups and universities and industries. The government has previously funded some of these organisations to get them started. There will be an opportunity for those sort of organisations to engage in the process. We're thinking very carefully about how to make sure that's as open and as transparent and simple for people to put their interests in. Sometimes processes can be really expensive for organisations to put their bids in, so we're thinking about an EOI process and then a more rigorous assessment so that we can open up the pool of applicants.

Senator DAVID POCOCK: So that I understand it, could there be a potential stream that helps those innovation networks or hubs actually scale up their work or are you just looking to fund individual projects within that?

Ms Quinn: The intention is that organisations will be funded to provide services to people who are in the program. It is intended to support them to provide a service. Some of that will cover capital costs required for the service. It's not to fund the entity itself directly. It's to fund the services they could provide to the applicants.

Senator DAVID POCOCK: You mentioned advertising for the executive director. How big will the team be that oversees this?

Mr Purtell: Oversees the whole program, do you mean? It will be quite large. It's a big priority for the government. The executive director will be a senior person, but they will also have my colleague, Ms Roussel, and me, as well as Mr Luchetti and his team, to support them in slightly different ways in terms of policy. I should note, because I think it's relevant to your previous question, we have a broader policy around start-ups and venture capital and interrelated things. It's not that a hundred per cent of our time will be spent supporting the executive director on this program but it all kind of connects somewhat. The key numbers, perhaps, in terms of industry impact, are that we'll start off with around 20 or so advisers in the first year and then scale up from there as the program grows. As I said, there are other elements, including the policy side of things, which are significantly smaller and work across a few different subtopics.

Senator DAVID POCOCK: Do you have an idea of the types of funding that will be available? Is it more shorter-term, or are you looking at longer-term funding for some? What's the mix going to be like?

Ms Quinn: These things will be in the grant guidelines, so that's something that we can get input from participants on. Based on the previous programs and analysis, there is a range of sizes. We've talked about between \$50,000 and \$5 million. You can imagine a \$5 million grant is actually potentially something that you might stage over time, with stage gates, milestones and things that that. There will be a range in the grant system, and the amount of advice that someone needs will also be something that has to be assessed through the program. Someone might need an adviser for six months and someone else might need one for longer. Part of the program is the flex to be able to work with the businesses to be able to meet their needs, against guidance and guardrails, to make sure that there's effective use of public money. The precise details—of how long the grants will be available for and what milestones—are to be worked through, through the consultation process.

Senator DAVID POCOCK: And the process to appoint the advisers?

Ms Quinn: That will be a tender process where people will present their credentials through an evaluation process in a usual way. As I said, this is an expansion in some ways of the Accelerating Commercialisation process. People involved in that element will have an opportunity to directly put their pitch into the system, and they'll be evaluated against criteria, and then there'll be contracting and management of them. One of the things that we talked about is that the executive director role will be directly responsible for ensuring that the suite of advisers deliver the services that they're contracted to do. At the moment there's a two-step process where there is a contract with a set of advisory firms who then contract the advisers, and so there are two steps in the system. This is cutting out that middle step, which we think is important from a probity perspective, based on the analysis and reports from the ANAO and our own internal analysis—to have a direct contractual relationship with the advisers. It also goes to the point the minister was making about being able to bring that information in and work closely with the Public Service so that we've got that direct information exchange, because one of the roles of the executive director will be to manage that cohort of advisers, but he will also look back inside to the system to say, 'Hang on a sec; this is what the advisers are saying,' and then connect into the policy landscape.

Senator DAVID POCOCK: You mentioned criteria for the adviser. Are those existing criteria, or will they be developed? And who has the ultimate say on who becomes an adviser?

Ms Pickworth: I'll start, and then I'm sure my colleagues can add. One thing to note in all of this is that we're certainly in the design phase. There's a design and consultation process that we're working through, with industry, with colleagues across government and with the minister. I'll throw to my colleague but I just wanted to frame that we're really in that program-design phase.

Mr Purtell: As Ms Pickworth said, it's somewhat subject to design, although the countervailing pressure on those advisers that you mentioned specifically, Senator, is that we do want to open that procurement process soon, in order to have them on board in time. So I think the sorts of skills that we'll be looking for, as I've mentioned a few different times, are direct experience in commercialising, in bringing products to market, and direct experience in helping, particularly, SMEs and startups but even others, potentially, to grow in those NRF priority sectors. We do want advisers who've got expertise across those NRF priority sectors, but also geographic dispersal is significant. So there are a number of factors that will all be listed in the procurement process, and people can explain their credentials against all of those.

Senator DAVID POCOCK: Who has the final tick-off?

Mr Purtell: The department.

Senator DAVID POCOCK: Who in the department? How does that work?

Ms Pickworth: It's likely to be Deputy Secretary Neal Mason, who's going to be the program delegate for that one.

Senator DAVID POCOCK: Okay. So you'll be handed a shortlist, I assume, or just recommendations?

Mr Mason: [inaudible] on procurement process, and typically those procurement processes will make recommendations to the delegate.

CHAIR: Thank you, Senator.

Senator DAVID POCOCK: I'll put some on notice, thanks.

CHAIR: Senator Shoebridge.

Senator SHOEBRIDGE: If we could go back to the Global Science and Technology Diplomacy Fund, the estimates that have been provided to me show that there's a \$25 billion cut to the fund in the forward estimates. What's your figure, Secretary, for the cut?

Ms Quinn: I will check. I don't believe I've got the officials here for that particular question at the moment.

CHAIR: Ms Quinn, Senator Shoebridge and I did have a discussion about whether these questions are for program 1.2. If they are, I would prefer to stay with 1.1 until we've concluded those questions, and Senator Shoebridge has agreed to that.

Senator SHOEBRIDGE: I said to the chair that I'd be happy to take your guidance. If it's better dealt with under 1.2, we can—

Ms Quinn: They are under science, so it is, technically, under science and technology in 1.2.

Senator SHOEBRIDGE: We can deal with it in 1.2. I'll park it and come back to it. In terms of the partnership with critical technologies, is that part of industry growth?

Ms Quinn: We would think of it as 1.2, because we would do science and technology together.

Senator SHOEBRIDGE: Alright. I think I'm on comfortable ground here with the National Reconstruction Fund?

Ms Quinn: That's 1.1, yes.

Ms Pickworth: Bingo!

Senator SHOEBRIDGE: I've hit a target. It was one of my aspirations at the start of the day.

Ms Quinn: I'm glad you had an aspiration to hit the target.

Senator SHOEBRIDGE: Cool. In the budget papers and in the public information on the National Reconstruction Fund, up to \$3 billion is to be committed for supporting renewables and low-emissions technologies. It is the only provision that uses the words 'up to'. So is it \$3 billion? Or is it \$1? Or is it something in between? What does 'up to' mean?

Ms Quinn: I have a table that lists 'up to' next to all of the dedicated numbers, so there may have been stylistic editing, but the government's policy is 'up to', and it has a definitive number against different criteria and then it has some criteria where it doesn't have a number allocated. And the numbers where the government has articulated an 'up to' number don't add up to 15, so there's obviously an opportunity to go beyond that over the life of the program.

Senator SHOEBRIDGE: My one, which was printed off your website in the last 24 hours, only has 'up to' for the \$3 billion for renewables, and then it has \$1.5 billion for medical manufacturing, \$1 billion for value-adding in resources, \$1 billion for critical technologies, \$1 billion for advanced manufacturing and \$500 million for value-adding in—and then a list of five areas.

Ms Quinn: I will just pass to my colleague to clarify.

Ms Luchetti: The wording is coming from the government's election commitment, so what you see there aligns with what the election commitment was. They are targeted amounts, and that's the way we think of them.

Senator SHOEBRIDGE: So I should read all of them as 'up to', even though it only says 'up to' on the first one? What's the position?

Ms Luchetti: I think we've seen them as 'up to', but I can take that on notice, to make sure I clarify that with what the election commitment was.

Senator SHOEBRIDGE: I was just going off what was on your website.

Ms Pickworth: And the opening piece before the dot points is around earmarked for \$8 billion. As the secretary mentioned, there's obviously a \$15 billion fund. We've picked that up in terms of earmarking of amounts within those sectors.

Senator SHOEBRIDGE: No. This is what the website says. It says, 'The government has identified \$8 billion of the NRF's \$15 billion for the following areas,' and then there's that list that I gave you. And, unless my maths is wrong, that adds up to eight.

Ms Pickworth: It does add up to eight, yes.

Senator SHOEBRIDGE: So is the \$8 billion committed to those areas?

Ms Luchetti: Yes, that is correct. That \$8 billion is committed to those areas, and there's another \$7 billion that can be distributed.

Senator SHOEBRIDGE: So, if you spend \$1.5 billion in medical manufacturing, \$1 billion for value-adding, \$1 billion for critical technologies, \$1 billion for advanced manufacturing and \$500 million for value-adding, that leaves you with \$3 billion. And the only thing left in that list is renewables and low-emissions technologies. That's why I'm asking: does it mean \$3 billion on renewables and low-emissions technologies, or does it mean 'up to'?

Ms Luchetti: I'll take it on notice, just to clarify in terms of the election commitment and against what's on the website.

Senator Ayres: Maybe it's helpful for me to jump in, because it relates to the election commitment. My reading of that is that the 'up to' is perhaps on the wrong side of the bullet point, because precisely what you've been reading out is replicated in my briefing notes; it's the same thing. These are indicative amounts. As the officials have said, they account for—I hesitate to use this word again—targets. They are indicative amounts that identify the sectors the government is prioritising through the fund. They may be exceeded; that will be a matter for the board. For example, in the area that you've just pointed to—my notes here say \$3 billion for renewables and low-emissions technology—it will be a matter for the board. If projects come forward that end up totally more than that for that sector but meet the objectives of the board, then they may well be funded.

Senator SHOEBRIDGE: How will that commitment be implemented? Is it a direction to the board? Is it a ministerial direction to the board? How is that going to be implemented, and will that direction be public?

Ms Quinn: The governance structure at a high level—my colleagues can fill it in—is the legislation. The other piece of the governance structure will be the priority areas declaration, which will be a disallowable instrument. The other component of the governance will be an investment mandate, which we had some discussions about earlier, which will be a non-disallowable instrument. Both those will be public. Beyond that, there will be obligations in those documents about the operations of the NRF itself.

Senator SHOEBRIDGE: Do I take from that that the intention is to replicate the list that I read out in some way?

Ms Quinn: In the priority declaration.

Senator SHOEBRIDGE: In the priority declaration, which is not a disallowable instrument?

Ms Quinn: It is a disallowable instrument.

Senator SHOEBRIDGE: That is the disallowable instrument?

Ms Quinn: Yes.

Senator SHOEBRIDGE: Okay. Do you have a time frame for when that's going to be issued?

Ms Luchetti: The priority area declaration is disallowable. It's a matter for government when they wish to table that in the parliament, but my understanding is it's not too far away.

Senator SHOEBRIDGE: This specifically speaks about funding for value-add in the agriculture, forestry and fisheries sectors. There are two specific parts of those sectors that I was going to ask about—if they have been targeted. First, is any of it going to be targeted towards the hemp industry, which has huge potential benefits for regional parts of the country? Is that on the list?

Ms Luchetti: I think the way to think about the fund is it's a manufacturing fund; that is the intent. If it is in relation to manufacturing, then projects will be considered in relation to manufacturing.

Senator SHOEBRIDGE: Well, the downstream processing of hemp—it's used in building products, it's used to replace what is an increasingly scarce and expensive timber resource. Is that on the radar?

Ms Luchetti: Like the secretary has said, there is a priority area of declaration. It will give more specificity around those priority areas. Like I said, if it relates to manufacturing or the value-add side, it's something for the board to consider.

Senator SHOEBRIDGE: On the plantation industry more broadly, we've got critical bottlenecks in timber supply; they're not going anywhere. When you speak to that industry, they say government investment in a resource that takes at least 20 years to mature is critical. Minister, is any of this money going to go into that critical government investment in the plantation industry and timber supply?

Senator Ayres: Where the fund will invest is in the value-add and manufacturing capability. It is not a primary industry fund. In timber, areas like engineered timber products and manufacturing of timber products—you raised hemp, for example. I have not given any direct consideration to that, but it's an agricultural product. It has a series of uses in the building industry—in fabrics, in chemical applications. All those upstream applications—I haven't given any consideration to it, but it seems to me it sits in agriculture, food and fibre. Upstream manufacturing for that particular bit of that is absolutely, in my view, in scope. The—

Senator SHOEBRIDGE: These are plantation—

CHAIR: Senator Shoebridge, I need to move on.

Senator Ayres: The documents that have been referred to that will be the disallowable instrument will provide more refinement of that, but, as a matter of principle, it's a value-add fund.

Senator SHOEBRIDGE: Good.

CHAIR: Senator McDonald.

Senator McDONALD: I'll just return to the Entrepreneurs' Program. A government website notes:

All applications submitted to the Entrepreneurs' Programme prior to the closure will be assessed and honoured if eligible. All existing grant agreements will be honoured, and recipients may finish their projects as agreed.

Given your government's track record—noting the MMI—in delivering commitments to programs which have been cut, when will commitments be delivered in full?

Senator Ayres: I might just offer a short response and then pass that on to officials. I absolutely do not accept the way that you've characterised the government's approach to the MMI fund. I won't traverse all the territory

that I traversed with Senator Hughes, but the government took a proper approach to establishing whether basic probity requirements had been undertaken in terms of the administration of the MMI grant. We had good reason to be apprehensive about the previous government's record on those questions. In terms of the Entrepreneurs' Program and the delivery and the assessment of grant applications, I might hand over to one of the officials, who can give you an account of the time lines.

Mr Mason: I'll kick off and then I'll pass to Mr Luchetti if we need anything further. You'll see in table 2.1.2 of the PBS the forward profile of funding the tail on the Entrepreneurs' Program. As you've rightly indicated, grant agreements that were entered into prior to the announcement of the closure will continue through, so that's the funding that's being appropriated to support that. There is one final assessment of those grants submitted prior to the announcement that will be made before 30 June, where the final number of grants will be determined.

Senator McDONALD: Is that the complete amount of applications?

Mr Mason: Yes, applications submitted prior to the announcement that had not yet been assessed.

Senator McDONALD: Right. They will be completed, then, by 30 June?

Mr Mason: Decisions will be made by 30 June, and then the funding, as you'll see in the outward profile, is there to support that.

Senator McDONALD: Some projects in the MMI collaboration stream are still waiting for their commitments to be honoured two years on from when they applied. So what certainty can applicants have about these commitments being honoured without additional cost?

Mr Mason: Sorry, Senator, I should make it clear that my points are in relation to the Entrepreneurs' Program.

Senator McDONALD: No, that was what I was asking about, because I've got another program where, two years on, they don't have that certainty. I'm just trying to make sure that those people who have applied, who are following along at home or at their business, can have a sense of when the applications for the previous Entrepreneurs' Program will be assessed and honoured.

Ms Quinn: I might just clarify here. My colleague has talked about the last batch of grants under the EP having assessment and decision by 30 June, and so people will know the outcome of their applications.

In relation to the MMI collaboration stream, we had an exchange earlier with your colleague. To be clear, there's not a sense of the companies waiting for an assessment. There have been detailed negotiations between the collaboration proponents and the assessment process within the department. There have been very detailed discussions back and forth. It's not that people mailed in their applications and they're waiting. They have been required to provide and engage with legal, commercial and other advice in order to be able to meet the guidelines for that program that were issued by the previous government.

Companies have a very clear understanding of where they are in the MMI process because they are engaging very closely with the process of meeting their obligations. I wanted to be very clear that there's no doubt in the proponents' minds about where there are up to in that process, given the intensive discussions between the program delegates and the companies—complex grants, very different landscape. We're talking tens of millions of dollars versus much smaller grants under the Entrepreneurs' Program. It's very much apples and oranges to compare those two systems.

CHAIR: The committee will now suspend for lunch. And the committee still has questions for program 1.1

Proceedings suspended from 12:45 to 13:47

CHAIR: The committee resumes with industry's program 1.1.

Senator HUGHES: I want to go to Powering Australia. I don't know if there is anyone who needs to be here for that. With regards to the Powering Australia industry growth centre's grant opportunity, it says there is a total amount payable of \$14 million. Is that correct?

Ms Quinn: At a high level, yes, the measure provides for \$14.8 million over four years to establish the Powering Australia industry growth centre.

Senator HUGHES: It says on the GrantConnect website the total amount payable is \$0 to \$14 million. Does that mean there could be a single grant for the \$14 million or would it more likely be multiple grants to make up \$14 million?

Ms Quinn: I will pass to my colleague.

Ms Luchetti: The grant is for \$14 million over four years.

Senator HUGHES: Yes, what I'm asking is: Is it going to be just one grant recipient or multiple grant recipients up to the \$14 million?

Ms Luchetti: I don't want to pre-empt the process to see what we get from that process. The grant process has opened. It is a two-stage process, so I don't want to pre-empt what we get from that. It could be multiple or it could be one; it's hard to say.

Senator HUGHES: How long is it open for?

Ms Cooper: The expression of interest in the first stage of the EOI was opened on 22 May and will close on 19 June.

Senator HUGHES: So, what, 28 days?

Ms Cooper: Yes.

Senator HUGHES: Is that a usual time frame.

Ms Pickworth: A part of this is a two-stage process. The first one is the expression of interest, as my colleagues were saying. From there, there is a second stage that will go into a further level of detail. We have designed that in a way to allow applicants to be able to express their interest and we then work with them about a more comprehensive grant process. That is part of the timing and thinking behind that design.

Senator HUGHES: But, I assume, if you miss those 28 days for an expression of interest, you are not going to be able to go forward to the next part of the process?

Ms Pickworth: You would need to express an interest in the first stage and then you could participate through to the second stage.

Senator HUGHES: Is that a normal practice, to have an expression of interest stage and then progress, or is this unusual?

Ms Luchetti: Through the grant program, you can do an EOI process or you can just do a straight grant process. There are different models that can be done. My colleague from the grant division will be able to give more on that particular design. But the first stage is around really thinking about the capacity and capability to deliver and about getting a sense of what is out there. An assessment committee will meet to assess those applicants, who can provide a much more substantial application to go forward through to the second stage.

Senator HUGHES: What I'm trying to understand is: Is the 28 days the standard time frame, a longer-than-usual time frame, or a shorter-than-usual time frame?

Ms Luchetti: I would have to take it on notice.

Ms Quinn: Just to clarify, it is usually the case, as I understand it. We can check this on notice but a conceptual reason why you would do two stages, an expression of interest then a more detailed process, is partly because it does widen the net in terms of the people who can put in expressions of interest. There are organisations where the fixed cost of doing a full-blown grant process is quite expensive, so one of the considerations is, if you do an expression of interest, it is a lower entry cost and also less time needed for the work that the organisations need. So the entry into the consideration is lower and the time is usually shorter. But for the actual grant application process, there are standard time lines et cetera, because the process is more rigorous. But we can take on notice the average times and how they sit. But that's conceptually why, if you can imagine a shorter, lower-cost process to broaden the net for opportunities. You can then assess what the landscape looks like and move to the next more formal grant process.

Senator HUGHES: Is that a departmental decision when these grants open, how long these expressions of interest time frames will be?

Ms Quinn: They are often in consideration with the government priorities in terms of time frames, implementation deadlines et cetera. But ultimately, they are the program delegate's decision.

Ms Luchetti: That's correct. It is the department who will look at it. From stakeholder feedback and conversations, we get a sense of what might be out there, so we design that program with that in mind.

Senator HUGHES: How many stakeholders or interested parties were consulted before the announcement on 22 May?

Ms Luchetti: It wasn't in relation to the grant program but was more broadly in relation to the battery strategy the government is undertaking. But we get a sense from those conversations in terms of opportunities that may be out there, but it wasn't in relation to the design of the program.

Senator HUGHES: Sorry, I'm not sure what you are saying?

Ms Luchetti: The government is undertaking a battery strategy. As part of those consultations through the battery strategy, we get a sense of what are the opportunities from an industry perspective by talking to the CRC

or others. We get a sense of what might be out there and then we design the program with that in mind, but we haven't consulted on the actual growth centre.

Senator HUGHES: Do you consult, though, with industry stakeholders of what would be a pretty good length of time to—

Ms Luchetti: Not in relation to the length of time, no.

Senator HUGHES: Has there been any request from industry stakeholders to extend that time?

Ms Luchetti: Not that I'm aware of.

Senator HUGHES: Can you take that on notice and check?

Ms Luchetti: Yes.

Senator HUGHES: Just so I understand the process, I go to the expression of interest. Let's say you get 50. What's the next stage to then get to? Do you do a process of elimination there or do you then say to the 50 organisations that have put in an EOI, 'This is the next step,' and they can make the commercial decision whether or not to continue, or do you do a culling at the EOI stage?

Ms Luchetti: An independent assessment committee is appointed. They will go through and look at what we get through in that first-stage process. They will then make, based against the guidelines, decisions and then invite those who they think meet the initial guidelines to go forward, to proceed. Then those that don't make that forward will be told.

Senator HUGHES: 'Don't bother'?

Ms Luchetti: That they haven't made it through to the next stage; that's correct.

Ms Quinn: And it could be quite procedural notions that knock people out. There is always that element of people applying for grants where they don't meet all the guideline requirements, so it could be quite procedural as opposed to evaluative in terms of judgement.

Senator HUGHES: Does the department or the minister go out to industry and say: 'Listen; we've just announced this. We'd be really keen for you to put in an expression of interest'? Is it a two-way street?

Ms Quinn: All grant opportunities are advertised through the business.gov.au portal. It's a very well established channel for people looking at grant opportunities. There's an open portal for people to see, and you can put selection criteria and get notifications if there are particular things you're interested in. We also have our industry network that are out and about individually in the regions, and their job is to talk about the opportunities. So when they are engaging with stakeholders they will actively talk about the opportunities.

Senator HUGHES: To let them know there's a grant coming up and they might want to have a look at this.

Ms Quinn: Yes. That's from a networking perspective. Then, from a policy perspective, the policy team talking to people in the battery strategy process and other policy discussions would also mention this. And, of course, the government has mentioned it in public statements. It's in budget documents, and there's messaging from the ministerial level as well.

Senator HUGHES: As of today, have any recommendations been made to the minister at all around this, or is it still in that early stage?

Ms Luchetti: It's still open at the moment.

Senator HUGHES: There hasn't been any: 'Look, we've had a cracking one come through. We really need to look at this.'

Ms Luchetti: No.

Senator HUGHES: When we get to that next stage—the EOI closes; you have your independent assessment and have a look at them all—will the list of organisations who are invited to go to the next step to apply for the grant be made public?

Ms Luchetti: No, that list won't be made public. It's part of the two-stage process, which was outlined in the grant guidelines which are on the website. That will be done by the independent assessment committee.

Senator HUGHES: If there was to be a request from industry to extend the deadline, is there any scope for the EOI to be extended?

Ms Quinn: Generally not, because in the procurement process there's a requirement for equity and fairness across applicants. So, generally, deadlines are held, because otherwise there's a potential issue of someone who put in an application that met the deadline and someone else—sometimes there's flexibility in the guidelines. I don't know whether in this particular one there is.

Senator HUGHES: Not necessarily a late entry but an extension?

Ms Quinn: It would have to be an extension for everyone.

Senator HUGHES: Yes, that's what I mean. Is that possible?

Ms Quinn: It depends on the precise guidelines in this case. I don't have them. Do you know?

Ms Luchetti: It would depend on the guidelines. It would depend on a number of factors in terms of what volume we're seeing come through. It's not a yes/no answer; it just depends on what's coming through, I'd say.

Senator HUGHES: So the volume of EOIs that may or may not be looking—because I assume if you get EOIs that aren't really meeting the criteria you're going to have to reload them.

Ms Quinn: Clearly, if no-one was to express interest we'd have to relook at the process and think about how we could do the implementation of the government program.

Senator HUGHES: And probably have a look at the program too—at why no-one is expressing an interest.

Ms Quinn: Correct. There's been quite a deal of work through the Audit Office in terms of procurement, integrity, probity and also equity kind of issues in that sense. So, as a stance, we very much stick to the guidelines and the rigorous process of evaluation, independence et cetera. There could be difficulties in extending if people had applied. If lots of people had applied three weeks before, and then some people asked for extensions, we'd have to really work through and get some advice to make sure that we weren't unfairly tilting the process. At the EOI stage that might be less of a concern. On the actual grants application process, it's incredibly unlikely that we would change deadlines.

Senator HUGHES: Yes, and I assume the grant deadline would be considerably longer than 28 days.

Ms Quinn: We do have business-as-usual processes. Sometimes they're shortened through instructions of government, and it depends on the size and the scope and what applications people need to put into the grants. It's not a one-size-fits-all. But they're usually longer than that, yes.

Senator HUGHES: Just to confirm, can we put on notice what the normal period is, if that's the average period or whether it's shorter or longer. Finally, with regard to contracts and tenders or grants being issued by the department and the awarding of contracts to external suppliers, are you aware of any contracts, tenders or grants that have been given to 89 Degrees East?

Ms Quinn: I'm not. I don't know. We'd have to take it on notice to search. We wouldn't have that available right now, but we're happy to take it on notice.

Senator HUGHES: Yes, that would be great.

CHAIR: I'm going now to the deputy chair or to Senator Duniam. It's in the hands of the deputy chair as to where we're going.

Senator DUNIAM: Am I right to ask about the National Reconstruction Fund here?

CHAIR: Yes, this is the place for that. Senator Duniam, you have the call.

Senator DUNIAM: Hello, Secretary and colleagues. I have a couple of quick questions around the National Reconstruction Fund. It was something I was trying to pursue with the Department of Agriculture, Fisheries and Forestry around the specific component of the government's commitment to set aside \$500 million of the NRF for ag, fish, forests, food and fibre. Can I just understand how that \$500 million is to be carved up across those five areas?

Ms Quinn: I'll just clarify that it's value added in agriculture, forestry and fisheries. We had a bit of a discussion before about it. It's the manufacturing and the value added industrial processes, not the raw primary production.

Senator DUNIAM: I'll come back to that in a moment, because there was some debate about that in the Senate when the bill was passed through, but we'll come back to that.

Ms Quinn: The \$500 million allocation from the government in terms of priority intent—I want to correct something. I have to check *Hansard*, because I'm not sure whether I did or didn't say this, but, just to be really clear, there are two staged governance documents. There are legislation and priority declarations and then the investment mandate. The allocation of the funds will be—

Senator DUNIAM: Sorry, but could we just rewind there? You lost me very much at that point. Can you go back just to explain?

Ms Quinn: We had a discussion about it earlier that you weren't party to, but the governance structure of the NRF is through three instruments: the legislation, a priority areas declaration and an investment mandate. That

will provide the governance framework that goes to the independent corporation that will make the investment decisions on behalf of the government. The instrument that will govern the intent of the government to allocate certain proportions to certain areas will be in the investment mandate, and that's where it'll have the indication of intent, which is the \$500 million for the value added of the agricultural, forestry and fisheries sector. So the NRF will be told that that's the government intent for the policy. It'll then be up to the NRF Corporation, through the board and its secretariat support, to make the investment decisions against the legislative requirements, the priority areas declaration, the investment mandate, their internal policies and the legal framework in Australia more generally. So they will make the decision about whether of the \$500 million they put X in to the various components that you mentioned. They will be the ones that do that.

Senator DUNIAM: Yes, okay. And, of course, it also probably will depend on who applies for funding. If you get none from—

Ms Quinn: Absolutely, because it's a demand driven process.

Senator DUNIAM: Could the investment mandate contain a specification of how much of the \$500 million goes to each of those sectors?

Ms Quinn: In theory, but—

Ms Luchetti: Senator, just to clarify, do you mean in terms of breaking down the \$500 million in it? As the secretary has said, the investment mandate will cover off the \$500 million at a high level in terms of the value-added agriculture, forestry and fisheries. Then it'll be up to the board, as the secretary has said, to determine how that will be allocated. The investment mandate will be at the high levels of the principles and policies in terms of things that the board need to consider when making investments.

Senator DUNIAM: Is the government, as represented here by the minister, constrained from specifying how that \$500 million be broken up across those five sectors outlined in the election policy?

Ms Luchetti: It's an independent board, so the board will make the determination of how that money will be allocated.

Senator DUNIAM: So the government can't direct the board how to break the \$500 million up at a high level across those five sectors?

Ms Pickworth: The investment mandate is still being developed, and part of the legislation requires that the investment mandate be shared with the board, and that the board provides feedback back to the government.

Senator DUNIAM: Before it's finalised—is that what you mean?

Ms Pickworth: Yes, and then it's tabled as a non-disallowable instrument. So, we're still in that stage, so we'd be unable to talk at a further level about exactly—

Senator Ayres: If it helps, I think there are sort of two questions in there, Senator Duniam, that I think are quite different. One is: what's the government going to do? And the second is: what could the government do? So, theoretically, yes, it would be possible to break it up, but, setting aside the processes and all that sort of stuff that we've got to go through—

Senator DUNIAM: Well, I think that process is after that.

Senator Ayres: I don't want to give any indication that we're going to do that.

Senator DUNIAM: No, no.

Senator Ayres: It will be that the sectors are as they have been described. We'll see how the consultation process goes, but I wouldn't want to lead people astray to think there was going to be some further—

Senator DUNIAM: No. It was a genuine question, not seeking to trip the government up at all. Perhaps I could ask: how broad is that consultation process? Who is being asked for input?

Ms Luchetti: That consultation process is in relation to the board. So, once the investment mandate is finalised, Minister Husic and Minister Gallagher will issue the investment mandate to the board, and the board will have I think a four-week period when it'll be consulted on and they'll provide written feedback to the ministers.

Ms Pickworth: And that obviously is in the context of much broader public consultation that's gone on to date. So, we're certainly able to talk at a fairly detailed level about the level of consultation that's gone into the NRF to date, if that's useful.

Senator DUNIAM: I'm not looking for the wingnuts and every other bit of detail but yes, in terms of industry input into the road to where the process is at now, I'd be interested in the consultation that happens there.

Ms Manen: Absolutely. Over the course of December and January, the summer months—gone awhile ago now—we undertook quite a comprehensive consultation process. It was a combination of virtual consultations in the Commonwealth round tables and one-on-one discussions, and we also released a consultation paper and invited submissions. We held more than 48 virtual consultations across the range of NRF priority areas, engaging with more than 430 organisations and individuals. As part of the submissions process in response to the consultation paper we received more than 250 written submissions. I can keep going, if you like.

Senator DUNIAM: Yes, please. That would be great.

Ms Manen: As I said, those virtual consultations were held in line with the NRF priority areas, so there were several sessions in relation to each of the priority areas, and we also held some additional sessions that were open to the public, for anyone who wasn't in attendance at those sector-specific ones who wanted to attend.

Senator DUNIAM: Was participation by invitation, or was it just an open come-along? How did that work?

Ms Manen: We did issue invitations to the sessions, but the sessions we held that were open to the public were open for registrations for anyone who was interested to participate. I should also say that there was a recording of the presentation on the department's website so that anybody who wasn't able to make those sessions could gather the information.

Senator DUNIAM: I personally have not viewed that recording, but perhaps after this I will.

Senator Ayres: We'll send you the link, Senator Duniam—

Senator DUNIAM: If you could, that would be delightful. Thank you, Minister.

Senator Ayres: and we'll test you on it later!

Senator DUNIAM: Sounds good. I'll look forward to that! On notice, then, perhaps you could indicate to me the dates on which consultation events or sessions occurred and also who was invited, if you're able to provide me that detail. That would be great.

In terms of the profile of the spending of the money, is it sort of equally over the—or is this, again, a board decision, depending on demand?

Ms Quinn: There are two stages. There's the government providing the funds to the corporation, and the government has allocated \$5 billion on commencement, as starting, and has indicated that a further \$10 billion will be credited over time by the end of July 2029. That's in terms of the government's allocation. The distribution of funds from the corporation itself is a matter that they'll have to work through over time, based on what comes forward and the decisions of the independent corporation.

Senator DUNIAM: Is there an expectation then that they will be investing or making contributions by a point in time?

Ms Quinn: The government has been very clear that it would like investments to be made as quickly as feasible and appropriate, given all the governance structures that I've just talked about. As far as steps for the NRF from this point, it's not yet in existence. We're in the stage where legislation has passed but the entity is not in existence yet. So it needs to be formed, it needs to be operational and then it needs to start making investments. The government's very clear it would like investments as soon as possible within all those constraints, but it will take a little bit of time for the entity to get its feet under the table and have its operational arrangements.

Senator DUNIAM: Understood.

Ms Quinn: We are working hard to make sure that, when a corporation comes into being, it has got all the logistical and administrative support it needs. We've drawn on the expertise in government and across the sector on setting up investment funds in previous governments, so we have arrangements in place as part of the work of the department to have the entity as ready as possible to go once the rest of the governance structure is finalised.

Senator DUNIAM: Is there a general sense of which financial year we expect to see investments being made?

Ms Quinn: We would expect investments to flow in the coming financial year.

Senator DUNIAM: So 2023-24?

Ms Quinn: In 2023-24.

CHAIR: Senator Duniam, how are you going for time? I was doing 10-minute blocks, and you're at 10 minutes.

Senator DUNIAM: I beg your pardon.

CHAIR: Do you need another couple of questions?

Senator DUNIAM: Just two minutes, if I may.

CHAIR: Indeed. Go ahead.

Senator DUNIAM: That's very kind, thank you. Just on that then, back to a point you made before, with regard to the value-add, there was a bit of debate around whether extraction of certain resources, including the logging of native forests, was ever contemplated by this program. Perhaps, Minister, it might be a question for you. Was logging of native forests or any other forests for that matter ever contemplated by this program?

Senator Ayres: No.

Senator DUNIAM: So, when claims were made that part of a deal to secure support for this legislation involved prohibiting native forest logging, any construction of gas pipelines or extraction of coal and gas financing, was that inaccurate?

Senator Ayres: The fund was never envisaged to be directed towards primary production of any kind.

Senator DUNIAM: Okay. That's it. Perfect. Thank you.

CHAIR: I'm going to the deputy chair, Senator Bragg.

Senator BRAGG: Last time, we talked about this space business. Was that in November, or was that earlier this year?

Ms Quinn: Did you say space?

Senator BRAGG: Yes. Do you remember we had a nice discussion about that?

Ms Quinn: I think it was November, from memory.

Senator BRAGG: It was a long time ago, yes?

Ms Pickworth: Yes, November.

Senator BRAGG: That's a long time ago, isn't it? That's good. What's the latest on that? Have you ended up with a higher overall funding allocation to space than was the case under the last parliament? Or is that reduced?

Ms Quinn: In this budget, the government has funded the Australian Space Agency over the forwards. There is additional funding for the operation of the regulations and the policy work for the Australian Space Agency. That previously had a terminating measure, so that has been extended. The government has announced some savings from some of the program expenditure in space programs.

Senator BRAGG: Savings, cuts—yes?

Ms Quinn: They have reduced some of the program funding.

Senator BRAGG: How much?

Ms Quinn: I'll pass to Mr Palermo.

Mr Palermo: There was a total saving of \$77.7 million over the forward estimates, which predominantly came from two programs. There was \$59.7 million over five years on the technology-into-orbit program and the space flight tickets subprograms, and then there was \$18 million from the Moon to Mars global supply chain facilitation.

Senator BRAGG: Sorry; that was a lot of information. So overall expenditure has been cut by \$77 million?

Mr Palermo: In administered measures—correct. There were increases to the departmental funding related to the operations of the agency—those \$34.2 million over three years.

Senator BRAGG: Is that additional?

Mr Palermo: That is additional for the operational funding for the core functions for the agency.

Senator BRAGG: So it is closer to \$100 million overall?

Mr Palermo: No. Just to clarify—

Ms Quinn: No, not cuts—net.

Mr Palermo: The \$34 million was an add.

Senator BRAGG: Sorry. So the net position is something like \$40 million?

Mr Palermo: Correct.

Senator BRAGG: So there is a net cut of about \$40 million.

Ms Quinn: Closer to \$30 million—77 minus 34.

Senator BRAGG: Well, I'll trust your mathematics, Secretary. I know you just mentioned them then, but what are the main things that will now not go ahead?

Mr Palermo: In terms of the programs that were cut, it does reflect the way the government wants to invest through new programs such as the Industry Growth Program and the National Reconstruction Fund, for which space entities can apply should they meet the conditions. The additional funding that the agency received was important to reaffirm the role we play and the work we do, not just in grants but across regulatory, across international partnerships and across our advice across government.

Senator BRAGG: I understand that. I'm just trying to understand what you're not going to be doing as a result of this net reduction.

Mr Palermo: We won't be running those two programs.

Senator BRAGG: Yes. What are they? The Mars one?

Mr Palermo: Moon to Mars. It was a global supply chain facilitation. Yes. It's an element of the Moon to Mars program. Then there were two elements of what we call the technology into orbit program and the spaceport investments program.

Senator BRAGG: Did we discuss that last time? I'm sorry; I know you're not supposed to answer silly questions like this. But I'm pretty sure we discussed this last time.

Ms Quinn: It was a different component of the Moon to Mars—that is my recollection.

Senator BRAGG: It's very confusing.

Ms Quinn: There are different subcomponents to the Moon to Mars. We were talking about, I think, the Demonstrator program, which has been announced since we last talked in November.

Mr Palermo: Senator, would it help if I walked through the Moon to Mars element?

Senator BRAGG: I think so. It's a lot of information.

Mr Palermo: Okay. The Moon to Mars initiative has three main components. One is the Trailblazer program. This is the lunar rover program. That is proceeding, and we've now awarded the grants to the two successful design consortia, and contracts are signed. That was something we announced when the NASA administrator visited Australia in March.

The second element is what we call Demonstrator. Demonstrator is about Australian businesses and research in demonstrating the technology in orbit and on the ground. It supported the objectives. That program has not been cut and is continuing. There have been no changes to the funding of that element.

The third part is what we call supply chain, and supply chain has two halves, to confuse a little bit. There's supply chain capability. That is proceeding as funded. That is the program that has had very successful outcomes to date in terms of growing jobs and supporting companies doing private investment. Essentially, one-sixth of the program, if you think of it that way, is global supply chain facilitation. That element, \$18 million, has been terminated.

Senator BRAGG: And that's part of the Moon to Mars supply chain?

Mr Palermo: Correct.

Senator BRAGG: Is that a US led initiative?

Mr Palermo: No, this is an Australian government initiative, but it is about us partnering with the US on their Moon to Mars program.

Senator BRAGG: So we're now not part of that supply chain work? Will that go ahead with the—

Ms Quinn: Not directly through that mechanism, but, as Mr Palermo said, there are other opportunities for Australian companies to source funding and be part of the US ecosystem if they so choose.

Senator BRAGG: I understand that, and I understand that the executive government have many opportunities to talk about what they are doing. This is our opportunity to ask about what has changed. So what has the feedback been about not progressing with that part of the supply chain agenda?

Mr Palermo: We haven't received any feedback from the sector directly. Obviously, the sector is looking at the whole portfolio and the way the government invests.

Senator BRAGG: There has been no feedback from the industry on that?

Ms Quinn: There have been public discussions. Some people would be disappointed about these programs.

Senator BRAGG: Sorry, can I just clarify: there is feedback, or there's not feedback?

Mr Palermo: Of course there's feedback when programs end in line with how the government wants to invest.

Senator BRAGG: Okay.

Ms Quinn: I'll be corrected, but my understanding of these programs is that they won't open for people in the system.

Mr Palermo: The Moon to Mars global supply chain facilitation had not commenced as a program. The parts of the Moon to Mars initiative that are proceeding had commenced and are proceeding.

Senator BRAGG: Has there been any feedback from the Americans or other partners that this particular component is not being progressed?

Mr Palermo: Not that I'm aware of, but we can take that on notice.

Senator BRAGG: That's one component. What was the other component that is not being progressed?

Mr Palermo: It was two measures. One was investments in space ports, and then what we call the space flights tickets program.

Senator BRAGG: Is that being replaced with another measure? How does that work?

Mr Palermo: Again, these reflect a shift in, I believe, how the government wants to invest in sectors, because these would be opportunities, say for space ports, that may fit applications into the NRF or Industry Growth Program.

Senator BRAGG: Is space a priority area in the NRF?

Ms Quinn: The NRF is available for people in space—just to be clear here: there are a lot of entities that work with space that do other things. There's a lot of robotics, AI, manufacturing, design et cetera. In terms of the sector, there are people who clearly identify themselves as 'space' and people who do things on robotics and quantum that could be used in launching rockets or could be used in on-the-ground activities. Space clearly fits under the enabling component of the NRF. As we said before, the NRF is available for value-adding and manufacturing, so there are lots of avenues where people can see themselves in the NRF priorities.

Senator BRAGG: How do the space industry apply? If I were in the space industry and I were involved with the space ports, how would I apply to the NRF?

Mr Palermo: I'll defer to the NRF team

Ms Pickworth: The corporation's yet to be established. At the point where the corporation is established we will set up processes for people to seek funding and financing through the NRF. My colleague may correct me or have further to add to that. As we've talked about through the morning, there is a lot of work going in to ensure that the corporation is set up for success and that they're able to provide an avenue for people to come forward with good ideas. At the point where the corporation is established, certainly space and other industries will be able to apply to the NRF Corporation.

Ms Quinn: There are a few different avenues on possibles, subject to finalisation of the governance structure of the NRF. Some space components might be able to be capable under the defence capability item. There's also the transport item and then the enabling capabilities item. This will be clarified. As I mentioned, there's the additional governance element of the NRF Corporation in terms of the priority declaration and the investment mandate, and then the actual operations of the entity itself.

Senator BRAGG: I'm getting the wind-up from the chair, I can tell, so I just want to clarify one last thing. We're talking about something like a \$30 million to \$40 million reduction in expenditure on space initiatives. Are you anticipating that that will be redeployed through the Reconstruction Fund?

Ms Quinn: The Reconstruction Fund is available for people for loans, equity and guarantees. It's not a grant institution. Some of the entities that may well have looked to the grant program might be able to go through the NRF loans, equity and guarantee system. There is also the Industry Growth Program that we have talked about already in this estimates, which is about startups and commercialisation. It's open to space companies to be part of that program.

I note the government continues to provide a specific direct grants program under the Moon to Mars program and some others. There is still a significant amount of direct grant funding that's clearly tagged to the space sector. For example, there is \$41.5 million for the Demonstrator Mission; there is \$25.7 million for the supply chain capability improvement; there is, through two stages, \$50 million under Trailblazer; there's work directly with India; and there's a space infrastructure fund for \$19.5 million. There are significant funds directly tagged for space, and then space is able to go through the Industry Grants Program and NRF down the track as well.

Senator BRAGG: But it's not an explicit priority area, is it?

Mr Palermo: Of the NRF, not currently. But, as the secretary covered, space is an enabler across all parts of the economy. If you look at the focus segments, we're a marketplace for quantum, AI, advanced robotics and automation, which our rover mission is. Space really cuts across all parts of the economy.

CHAIR: Thank you, Senator Bragg. We're a fair way behind time. I've got a few people on my list, so I'm going to go to more-strict 10-minute blocks—strict ones!

Senator McDONALD: You're always very strict, Chair, but thank you. I want to turn to the Major Projects Facilitation Agency within the Department of Industry, Science and Resources. There are currently 24 projects across Australia that maintain major project status with the Commonwealth. I should confirm that with somebody before I get going.

Ms Quinn: Yes, that's correct.

Senator McDONALD: Last estimates there were 25 projects. Can you please advise which project has had its project status lapse?

Ms Quinn: I think it's a little bit more complicated than that, but I'll hand to my colleague. There have been more ons and offs than 25 to 24 would suggest. I'll pass to my colleague.

Mr Krbaleski: Projects do come off and on on a regular basis. Projects get facilitation services over a period of three years. Some of those get extensions where there's a need for additional facilitation support. In the 12 months to 4 May, eight projects had their major project status expire. You're correct in that there are 24 projects on the list at the moment, with a capex of \$130 billion, with over 23,000 jobs in construction and with ongoing jobs in the order of 12,000.

Senator McDONALD: I had not appreciated the ons and offs, so, on notice, can you please provide me with the 25 at the last estimates and then the ons and offs so that that reconciles to the 24 projects? That's possibly something you would want to do on notice.

Ms Quinn: It's publicly available information, but we can take it on notice for you.

Senator McDONALD: In answer to question on notice No. 67 from last estimates, you provided a table with five projects that were currently under assessment for major project status. They were the Arrowsmith Hydrogen project, CStore1 project, Murchison Technology Metals project, SEA-CCS project and Seadragon Offshore Wind project. If I can start with the CStore1 project in Western Australia. Has it been recommended to the minister for major projects status?

Mr Krbaleski: No, it's still under assessment.

Senator McDONALD: So you're still assessing it. How long has it been under assessment for?

Mr Krbaleski: I'd have to take that one on notice.

Senator McDONALD: Has the SEA-CCS project in Victoria been recommended to the minister for major projects status?

Mr Krbaleski: No, it hasn't.

Senator McDONALD: Under assessment?

Mr Krbaleski: Under assessment.

Senator McDONALD: Could you tell me how long?

Mr Krbaleski: I'll take that on notice.

Senator McDONALD: Has the Murchison Technology Metals project in Western Australia been recommended to the minister for major project status?

Mr Krbaleski: It hasn't. It's under assessment. I can confirm that the minister has had two recommendations put to him, and he's approved both those major projects. One is Star of the South in Victoria, an offshore wind project which received major project status for a three-year period. The other one is a rare-earth processing facility in Kalgoorlie, which was an extension to its original major project status, and that extension was for a period of 12 months. They are the two that Minister Husic has approved to date.

Senator McDONALD: Terrific. Have there been any projects recommended to the minister that have not been approved?

Mr Krbaleski: No.

Senator McDONALD: Could you—I assume on notice—provide all projects currently under assessment for major project status with the following details: when, what date the proponent first contacted the Major Projects Facilitation Agency seeking major project status, the proposed capital expenditure of each project, the job

numbers for each project, how long the project has been under assessment by the MPFA, whether the project has been recommended for major project status to the minister, and what date that recommendation or submission went to the minister's office. Have you got that list?

Mr Krbaleski: We'll take that on notice.

Senator McDONALD: Thank you. Chair, I believe I'm in under my 10 minutes.

CHAIR: You have done very well! Thank you very much.

Senator Ayres: Senator McDonald, when you said the number of jobs, you mean the number of projected jobs?

Senator McDONALD: Yes. And, as you broke it up before, into construction and ongoing, please.

Senator Ayres: Thank you.

Senator HUGHES: Can I just come back to the National Reconstruction Fund. Secretary, did you say it was June that it would be up and running?

Ms Quinn: No, I didn't actually say anything about time, I don't believe.

Senator HUGHES: So when will it be up and running?

Ms Quinn: I believe my colleague said the government is targeting as soon as possible. There is not a drop-dead deadline; it's as soon as practical and possible.

Senator HUGHES: It's been seven months since it was introduced, and it passed both houses in March. It's now June. Just to confirm, there is no staff, no investment mandate, no program guidelines, no board. Is that correct?

Ms Quinn: There's the priority declaration and the investment mandate and appointment of the board processes. We are working to ensure that the entity can be set up very quickly through the back-end processes et cetera, so the department is working on that in terms of making it possible to start live, so to speak, rather than for that to start once the entity comes into commencement.

Senator HUGHES: Yes, but there isn't a board yet, and there isn't staff yet?

Ms Quinn: No, there's not a board appointment process. The government hasn't announced an appointment process, no. The staff question is a little more back and forward because we are certainly making arrangements for the provision of services which will include an option for the board to take secondees and other arrangements for staffing and support services so that they can be operational as quickly as possible.

Senator HUGHES: You said the government wants it up as soon as possible, but we don't have any time line. Minister, have you got any insights as to when the corporation will be stood up and functional?

Senator Ayres: I think as soon as possible.

Senator HUGHES: You can't be more specific?

Senator Ayres: As soon as possible. The approach to getting the set-up right is very important.

Senator HUGHES: You can give assurances that the corporate governance and all of those things are going to be looked at before; it won't be raced through?

Senator Ayres: It will be stepped out in a very careful way. The policy imperative to get this moving is, of course, very pressing, but ensuring that we get those things stepped out around governance, capability and all of the other questions is critical as well.

Senator HUGHES: As soon as possible—how long is a piece of string? Is it likely that money will have started to flow to these programs before the end of the next financial year?

Ms Quinn: We are expecting the corporation to be up and running and making investments in the next financial year.

Senator HUGHES: To come back to the board appointments, were these publicly advertised positions?

Ms Quinn: They haven't been publicly advertised to this point.

Senator HUGHES: So the process is underway. Can you maybe tell me what process that is. If we haven't advertised for them, where are the people coming from? What people are underway?

Ms Quinn: The Department of Industry, Science and Resources is working closely with our colleagues in the Department of Finance. The Department of Finance have engaged an executive search company called NGS Global, who have been undertaking a wide-ranging search program looking for the right skill sets for people to sit

on the board. As per the evidence that the secretary gave earlier today, we also have people who come to us who think they have the skills and capabilities, so that is fed into that process.

Senator HUGHES: Are there committee positions as well?

Ms Luchetti: It's for the board. NGS Global are looking for the board appointments.

Senator HUGHES: And are they then short-listed to you, or are they short-listed to the minister? How is that going to occur?

Ms Luchetti: The short-listing will come to the Department of Industry, Science and Resources and the Department of Finance, and we measure that up against the set of skills that are outlined in the act as to the types of skill sets that board members should have. Then we provide that advice to the Minister for Finance and the Minister for Industry and Science. Then it will go through a cabinet process.

Senator HUGHES: I actually used to work in executive search, so I know how this works. Sometimes, clients would come to us to do a search with a brief, but they would say, 'We would like X, Y and Z to be considered,' and there was some movement for us to say either, 'Listen, they're not up to spec with who else we've looked at,' or, 'If you want them in the mix, you should also look at A, B and C.' Have any suggestions been made to this search firm that they should include A, B and C people, for example, in their remit?

Ms Quinn: Yes, because, as Ms Luchetti has said, people have approached the department expressing interest.

Senator HUGHES: Yes, but that's a bit different. For example, internal candidates in an organisation can sometimes be referred to the search firm so the search firm can judge the internal candidate versus external applicants. Rather than just people approaching you, it's you having your own pool of people that you'd like or you might think would be good, and you say to the search firm, 'Can you reach out to these people and talk to them.'

Ms Quinn: As you would know—you've mentioned you worked in the field—it's often horses for courses. In this case, certainly, as part of the discussion, both we and the Department of Finance, when people have expressed interest, have also provided those names to the search firm for them to consider alongside other people. We have, as a department, a very extensive set of contacts and people who have worked and applied for other things. We have been going through that process and talking to the search firm about it. So it's certainly the case that it's an iterative process. It's not just that we gave them a set of criteria and said, 'Go get a list and come back,' and that's it. This is all in the process of coming up with advice to government and ministers, and the ministers consider what they want to do with that advice. There has been both us putting names on the list and others in the system, in the Public Service system, and connections. It's fair to say—

Senator HUGHES: On the longlist as opposed to the shortlist.

Ms Quinn: Correct. And then we evaluate the composition et cetera in terms of capabilities and skills and things like that, because there is a requirement in the act for certain sets of skills to be on the board. So, while we haven't advertised formally, it does not feel like there's a lack of understanding about these opportunities out there, given the interest from parties.

Senator HUGHES: And if anyone is interested, they can get in touch with NGS Global.

Ms Quinn: They can, or they can get in touch with the department as well, and we're happy to—

Senator HUGHES: And what is the brief to NGS Global? What is the date that they are to submit to you their shortlist?

Ms Luchetti: They're working as quickly as possible at the moment. It's an iterative process as we're going through this with NGS Global. They have done the initial cut. We've provided that advice to the ministers, and we're waiting for that advice to come back.

Senator HUGHES: Minister Ayres, has the minister or his office asked the department to put any potential candidates into the mix or look at who they might appoint?

Senator Ayres: I'd have to take that on notice. I'm not aware of the minister doing that, but we're happy to take it on notice.

Senator HUGHES: Ms Luchetti, you seem to have had a lot to do with this process. Were there any candidates referred to the list by the minister or his office?

Ms Luchetti: I'd have to take it on notice, because we've had a range of names provided to us from a variety of sources. I would have to take that on notice in terms of what has come in.

Ms Quinn: It wouldn't be unusual for there to be—

Senator HUGHES: Is it possible to get us the names of who was potentially requested by the minister or his office to be put on the list?

Ms Luchetti: That's part of a cabinet process.

CHAIR: Last question, Senator Hughes.

Senator HUGHES: I think just for you, Senator Walsh, I will leave it there.

CHAIR: Oh, my goodness. What is happening! Senator Shoebridge.

Senator SHOEBRIDGE: Thanks, Chair. Just for you, I will spend 15 minutes on building codes!

CHAIR: We're going in 10-minute blocks, and it's the last one available. We've got the CSIRO waiting, and I can tell you that the demand is, as per usual, high.

Senator SHOEBRIDGE: The whole national media gallery is waiting for these questions on building codes! Is that your responsibility, Mr Rake? Or Ms Anton?

Mr Rake: It depends on the question.

Senator SHOEBRIDGE: Alright. Other than preparation and publishing of the Australian building codes, given it's a shared state-federal responsibility, what specific role does your agency have in establishing the codes?

Mr Rake: We work on behalf of states and territories to prepare and administer the National Construction Code. It's essentially a national standard that is adopted into each state and territory's legislature by their own representative bodies—their own parliaments. The aim of the code is to promote, as far as we can, national consistency. Our functions are to work under the guidance of the board and building ministers to investigate potential reforms for the code; to prepare and consult on revisions to the code—we revise on a three-year cycle—once the decisions are made, to publish the code; and also to support industry with education and information material to help efficiently and effectively implement that code.

Senator SHOEBRIDGE: What, if any, connections do you have with state partners such as the New South Wales Building Commissioner? Do you have any institutional connections with the New South Wales Building Commissioner?

Ms Quinn: No direct institutional connection, but certainly we have a regular dialogue with them. All of the building administrations and regulatory bodies are sources of information for us in trying to identify areas for future improvement in the code. Each of the states and territories has a representative nominated to the board of the ABCB, although for New South Wales it's an officer of the department, not an officer of the commission.

Senator SHOEBRIDGE: I beg your pardon?

Mr Rake: The New South Wales nominee to our board is an official within—I'll have to check their new department name—formerly, the Department of Customer Service. It may still be that.

Senator SHOEBRIDGE: So it's an office rather than a nominee; is that right?

Mr Rake: It will be a nominee. Jurisdictions nominate a person by name to be their jurisdiction's representative on the board.

Senator SHOEBRIDGE: So there's currently a vacancy for New South Wales?

Mr Rake: No. A senior public servant, John Tansey, is the New South Wales board member.

Senator SHOEBRIDGE: Is there a program inside your agency to lift building standards, looking at what has happened over the last five to 10 years, not just in New South Wales, particularly in multi-unit dwellings? Is there any part of your agency that's focused on lifting construction standards?

Mr Rake: Yes; that's almost the entire work of our research and projects team. In relation to building standards, we work across the major components of safety, amenity and sustainability for buildings—structural safety, fire safety, health and amenity. We work on a research program that underpins those reforms that come into the code each three years. In terms of current topics of interest, we are working on matters related to fire safety, to waterproofing and weatherproofing. We've recently supported the introduction of energy efficiency improvements and improvements in accessibility for people with mobility constraints. We've supported easier charging arrangements for electric vehicles in future apartment buildings.

Senator SHOEBRIDGE: Different states and territories have adopted different standards on disability and accessibility. The ACT, for example, has adopted a higher standard than New South Wales in recent years. Do you see different jurisdictions adopting different standards as having an impact for a national standard?

Mr Rake: The national standard remains as it is regardless of the number of jurisdictions that adopt or the times in which they adopt. One of the interesting perspectives that have been put to me is that the ability for

jurisdictions to vary the way they adopt the code is one of the things that helps hold it all together. There are more provisions of the code that are adopted uniformly across jurisdictions than ones that are varied.

On liveable, accessible housing, New South Wales use a different approach to promote liveable housing, and that's a decision made by the jurisdiction.

Senator SHOEBRIDGE: 'Different' is a polite description, isn't it?

Mr Rake: They would argue their merits, and I have to allow them to make those arguments and make those determinations.

Senator SHOEBRIDGE: Those unmeritorious arguments.

Mr Rake: I couldn't agree to that. I couldn't use those words.

Senator SHOEBRIDGE: No, I understand. Do you have a master list of the state and territory variations from the national building standard. Is there a master list for that?

Mr Rake: There's a master list prepared once a year, and we're just about to move into the preparing the next version of that. It's an obligation created under the intergovernmental agreement that we prepare a schedule of variations within each state and territory, and that helps bring visibility to those variations with a view to trying to reduce them over time. There might be areas where we can slightly change the code and remove other variations.

Senator SHOEBRIDGE: Do you have any insight into the ongoing difficulties that the construction industry and the design industry are having with accessing adequate professional indemnity insurance? Is that part of your remit?

Mr Rake: That's not part of my remit.

Senator SHOEBRIDGE: So is no part of your work lifting the standards under the code to address that ongoing professional indemnity crisis that we're seeing across the industry?

Mr Rake: There's an indirect link, and that is that, the clearer the provisions of the code, the easier it will be for individuals who need to interpret it to make the right decision, and that should flow through to fewer mistakes and lower indemnity risk. Clarity, readability and continually improving those is an important part of our work.

Senator SHOEBRIDGE: When will the new list of variations, if I can call them that—you may have the master list that I was referring to—be published?

Mr Rake: I expect that to be ready third quarter of this year, so in the window of July to September.

Senator SHOEBRIDGE: Finally, when you're looking at the issues for improvement in the building code, do you have regard to the number of defects and the number of insurance claims related to the different aspects? For example, waterproofing would be one that is creating crippling claims throughout the construction industry. Do you have any kind of oversight into where the issues are that need addressing under the code?

Mr Rake: We draw on all of that intelligence because our work is evidence based. Seeing a large number of defects in a particular area like waterproofing is a trigger for us that we need to look at where the causes are. It's important for us to then look into the basal cause of those. Is it that the rules weren't clear enough? Is it that the rules were wrong? Were they not being followed? Were they not subject to compliance? There are a range of points of breakdown, but we do control one part and we're very keen to get that right.

Senator SHOEBRIDGE: Could you on notice provide the rankings of those issues that have been brought to your attention that you are seeking to remediate through the potential changes to the building codes?

Mr Rake: Sure.

Senator SHOEBRIDGE: You can do that however best you can demonstrate it. Maybe it's a table. Maybe it's an explanatory response.

Mr Rake: Yes, we can do that. The easiest way to do that would be to show the projects on our business plan and the reason that they've made it to the top of the list.

Senator SHOEBRIDGE: I appreciate that. Thank you.

CHAIR: Senator Bragg.

Senator BRAGG: I want to ask you a couple more questions on the Reconstruction Fund. I'm wondering whether the department conducted any modelling on the impact on the forestry or resources sectors of the Greens' amendment to the legislation which were accepted by the government?

Ms Quinn: I don't believe so, no.

Senator BRAGG: Did you provide any advice, briefing or other material to the minister or his office on the impact—sorry; your answer is no, not at all?

Mr Rake: On modelling, no.

Senator BRAGG: So you did not before or after?

Mr Rake: No, but we did provide advice about the amendments, as we would normally do on any legislative process. When amendments are put before the House or the Senate, we do provide advice on the implications and analysis about what it would do to the operation of the legislation.

Senator BRAGG: So there was advice but no modelling?

Mr Rake: Well, modelling is a suitcase word, as I'd say. It could mean a lot of different things. We certainly provided advice on the implications of the amendments, of which there were quite a few, and what they would mean for the operation of the legislation.

Senator BRAGG: Okay. Since the bill has passed, have you provided any updated advice or briefing materials on the impact of these amendments on the forestry or resources sector?

Ms Luchetti: No, we haven't.

Senator Ayres: Nor would we expect—the fund was never envisaged in the policy development, the legislation or its approval to provide assistance to primary industry of any kind. I traversed these issues with one of your colleagues a little bit earlier. It's not possible, really, to identify a difference in terms of, say, forestry. The fund was always envisaged to deal with value-add in those sectors, not with primary production itself.

Senator BRAGG: Okay. Thanks for that.

CHAIR: Thank you very much to the officials from program 1.1. That concludes the questions that the committee has for you.

Commonwealth Scientific and Industrial Research Organisation

[14:54]

CHAIR: The committee welcomes representatives from the Commonwealth Scientific and Industrial Research Organisation. Welcome, Dr Marshall. We understand that this is your last appearance in your current role in front of budget estimates. We'll save our further comments until we've been through the process of asking questions. Do you have an opening statement that you'd like to give?

Dr Marshall: I do, if there's time.

CHAIR: Please proceed.

Dr Marshall: Today is my 27th and final appearance at estimates as CSIRO's chief executive, so I wanted to take the opportunity to tell you about the remarkable group of people that I've had the pleasure to work with these past 8½ years. I was thinking back to 2015, when I started. Then, CSIRO was grappling with many of the great challenges facing Australia that keep people awake even today. For example, we were making great scientific breakthroughs in renewable energy research, we were modelling disease transmission that could underpin a global pandemic, and we were working to understand how to apply exponential technologies like artificial intelligence, synthetic biology and quantum physics to our science, just to keep pace with the rest of the world.

We knew that, just as in every other disruption in history, science would be pivotal to helping Australia solve its national challenges. But, unfortunately, across the country we weren't always delivering the real-world solutions that we needed from our research. Instead, we were often reliant on innovation from overseas. Australia was amongst the last in the world for innovation, despite our excellent science.

As scientists, we relished the opportunity to take on this fundamental challenge, so we began to experiment on ourselves. We tried new things like tackling our energy transition by placing market driven bets in areas like hydrogen energy. We also walked the talk on sustainable innovation by cutting our own enterprise emissions by 83 per cent. We brought together our experts in human health, animal health and digital science at our world-class biosecurity lab in Geelong, so we were ready on the front line when COVID-19 arrived in 2020. We took action to accelerate Australia's digital capabilities by creating Data61 inside of CSIRO. This enabled us to supercharge research across agriculture, energy, manufacturing and health using digital technologies. That positioned us as global leaders in fields where Australia had a rich history of leading in the past.

As we began to see success from these experiments, we shared our learnings with the rest of Australia's brilliant university research system. We created the ON Accelerate program to get Australian science off the bench and into the hands of the community. The ON program has helped more than 3,000 people from 52 Australian research organisations turn their science into real-world solutions, and it actually outperforms the best science accelerator in the world, the United States I-Corps program. We also created a new venture capital fund

alongside a government agency—the first, I think, in our history—and with this fund focused on helping bridge the gap that separated great Australian science from impact on our country.

Because solving Australia's greatest challenges takes a 'team Australia' approach, we then launched a program of national missions, bringing together partners from government, industry, academia and the community. These partnerships were built on a fundamental foundation of common purpose to deliver national benefit, solving challenges like tackling emissions in our hardest-to-abate industries or drought-proofing our farms as we head into our next El Nino season.

As scientists, we always look at the numbers to tell us if we're succeeding. Independent analysis of the value that CSIRO delivers to Australia shows that over the past six years we've doubled the value we create for Australia each year. Last year alone we delivered an additional \$5 billion value back to our nation—more than ever before. This is all thanks to CSIRO's remarkable people. We've seen the results of this in our culture survey, which continues to reflect an unwavering belief in the importance of the work that we do for the nation.

It's been an absolute honour and a privilege to be part of team CSIRO, a team of passionate and brilliant individuals who've experimented with great enthusiasm to really move the needle on our greatest challenges and delivered phenomenal results for our nation. I thank this committee for engaging so enthusiastically with me and CSIRO over the years, and I'm so proud to leave this wonderful organisation in a strong position so it can keep delivering for all Australians well into the future. Thank you.

CHAIR: Thank you for that opening statement, Dr Marshall, and, indeed, thank you very much for the work that you've done in your leadership role at CSIR. You've demonstrated such a commitment to scientific discovery and also, as you've outlined, to commercialisation and innovation. You've helped to lead us through a time when we've needed the scientific community the most in relation to climate change and also in relation to COVID. We very much thank you for your work. We will probably reward you for all of that contribution with, as always, an interesting set of questions from senators at estimates. Those questions will start now with Senator Pocock.

Senator BARBARA POCOCK: Thank you, Chair. Dr Marshall, thanks to you and all of your staff for being here. That was a very enthusiastic beginning. Thank you for outlining the contribution that CSIRO makes to our nation—\$5 billion in the most recent year, you said, as I hear it. I have some questions about the capability of CSIRO in relation to consulting. Mariana Mazzucato recently wrote a book and was quoted favourably in the Treasurer's recent essay. She wrote a book called *The Big Con* about international consulting and its long-term effects on the capability of our country, including our scientific capability. One of the very early examples she uses in the book is an example of the failure to build capability in our public sector and, instead, to put money, sometimes, into projects that have very poor value for money and don't advance the public interest. It's the case of contracting McKinsey to develop Australia's net zero strategy over the period that they did so. I want to quote from an article written at the time by science writer, Ketan Joshi, who said:

In some parallel universe, the task may have gone to Australia's chief science agency, the CSIRO ... But it was revealed at Senate estimates a few weeks back that despite the CSIRO applying for the tender, the government rejected them and paid McKinsey \$6m to model the changes Australian society must go through to decarbonise within 30 years. This choice makes sense in the context of recent leaks to the New York Times that revealed McKinsey has advised 43 of the 100 biggest corporate polluters, including "BP, Exxon Mobil, Gazprom and Saudi Aramco". 1,100 of its employees signed an open letter pleading the consultancy reveal the carbon impacts of its clients.

What is your view about the letting of that contract? What are your reflections on that experience and the fact that CSIRO missed out? Did Australians get value for money? Did we get good advice?

Dr Marshall: I can't comment on those decisions because they're not mine. But we did a model anyway to get Australia to net zero, and we felt that was very much our role. Many of the government's targets have been set using big chunks of that model, including what we shared with DCCEEW. But we felt it was very important for us to analyse that problem because it is one of the six big national challenges that we're concerned about for Australia. We've used that to guide a lot of the investments that we made, like in hydrogen energy, in the really hard to abate emissions sectors and in technologies like carbon locking that can literally suck CO2 out of the atmosphere and lock it away. So, regardless, we did the work.

Senator BARBARA POCOCK: That's not what I'm asking.

Dr Marshall: I'm sorry, Senator. I misunderstood your question.

Senator BARBARA POCOCK: It's great that you did the work. Did you get the same answer?

Dr Marshall: I think we got a similar answer. We showed that it's possible to navigate to net zero by 2050 and also to grow Australia's GDP by about 36 per cent in that time. That surprised a lot of people at the time,

including us. Generally people think that you can't have emissions reduction and growth of the economy and that they're somehow fighting with each other. We certainly convinced ourselves that it was possible.

Senator BARBARA POCOCK: You did the work. We as a country—the public—paid \$6 million to a very large multinational consulting firm, and you did the work anyway. Does this represent value for money?

Dr Marshall: I couldn't comment on that.

Senator BARBARA POCOCK: It seems to me that you cost nothing in terms of this particular piece of analysis. You did it because you see it as one of the six key challenges for our country. I'm inviting you to reflect on a public sector provision of that advice and the efficiency and effectiveness of an external consultancy.

Dr Marshall: It's not a matter for the CSIRO.

Senator BARBARA POCOCK: Why does a government corporate identity like CSIRO have to compete with big multinational consulting firms to win tenders? What's your view about that? What does that do to you?

Dr Marshall: If you take off the money that we spend, which is about \$350 million a year, on the national labs that we supply to all of the universities and research agencies free at the point of use, then about half our budget comes from external revenue and the other half comes from appropriation. The thing that's good about that is that it means that we know that what we're creating is being taken up by Australian industry. We know that we're not just kidding ourselves on the importance of what we research. That's an important test. The trick is keeping that in balance. If we get pulled too far towards the external revenue, it constrains us, but, if we get pulled too far away from the external revenue, we don't know that what we're doing is the right thing that is going to help the country. In terms of where we are at the moment, it feels like we're probably in balance.

Senator BARBARA POCOCK: I've had the experience of running a research centre and trying to keep everyone in salary and trying to do that balancing trick. In my experience it changes your research agenda because you have to build those relationships. Some of that can be for good, and some of it can be drawing you away from fundamental challenges. What are your reflections on how your research agenda is shaped by the need to commercialise and to seek those relationships that bring in money?

Dr Marshall: We've had a big change. If you look back three decades or more, Australian innovation has gone down, just like our STEM graduate rate—our STEM pipeline. CSIRO is no different. So one of the things we changed in the current strategy was to try and take more equity in the things that we create. Rather than inventing and then licensing it to someone, we'd invent it and we'd help them take it all the way from invention into a product, and we would take equity in that invention or in that company. That's what drove the strong increase in external funding. The importance of that stream of revenue—and, if I add it up, it's about \$1½ billion more than we ever had before—is that it enabled us to invest well over \$400 million back into fundamental science. So it decoupled the model, if you know what I mean, and that gave us more freedom. I think that's something that a number of other research organisations have learnt from our journey. You'll see that a number of the big universities are starting to create their own equity funds so that they can follow a similar model.

There is another thing that we did. Mariana Mazzucato—you mentioned her earlier—is quite a visionary. She's called the 'mother of missions' for the European missions program. Mariana and I disagree on the fundamental structure of missions. We do it the opposite way in Australia. Her missions model in the European Union uses almost entirely government money to fund the missions. We're the opposite. We use almost entirely industry money—not totally but predominantly. We do that because, again, we want to be sure that industry is serious about solving the problems that we're solving. So our hydrogen mission is largely funded by the industry that wants to adopt the hydrogen zero-emissions energy product and export it to create a new industry. That's very unique to Australia. I want to celebrate that because Mariana would tell you that that model won't work. She told me that at the time. Clearly it does. We've launched half a dozen missions, and they've been very successful.

Senator BARBARA POCOCK: Your model, if I understand it—and I probably don't—is to generate a large pool of industry sourced finance for specific research projects and to cross-subsidise it and draw off, say, \$500 million, I think you said, to put into projects that you think internally you want to support. Have I understood that correctly?

Dr Marshall: Not quite. Let's take the hydrogen energy mission, for example. The problem that we were trying to solve is that Australia gets a massive revenue stream from exporting LNG and coal, which we know is going to go away in the net zero scenario. The question was: could hydrogen replace some of that revenue and recover some of those jobs that we'll otherwise lose? So we went out to industry to try and convince industry that this is something they should bet on and that we would work together with them to try and help them do that. Quite a few years ago now—I think it was 2017 or 2018—we started these conversations, and we were able to convince a couple of big industry players to invest in this and actually work with us. It's not just the investment

actually that matters so much; it's the fact they were willing to build pilot projects themselves. We don't have the ability to build an industrial-scale pilot project to prove technology out, but they do. So that's really the value in it: getting them to put their own money in to create these pilot projects because they think the Australian science is going to enable them to work. And that means that we don't have to keep funding it. We can let it go.

CHAIR: Final question.

Senator BARBARA POCOCK: What I'm hearing from you is that you don't feel your research agenda is thrown off course from a scientifically based agenda addressing key problems. And that industry—is it coal and gas—are assisting you, in ways that you feel you can manage, to fund the research you that want to do. Is that what I'm hearing from you? I'm very surprised to hear that.

Dr Marshall: CSIRO was originally created almost a hundred years ago, specifically for the purpose of assisting industry. So a lot of the way we're structured, how our SIR Act is—

Senator BARBARA POCOCK: Surely it's to assist the Australian public as its primary goal.

Dr Marshall: I think the first purpose under our act is to assist Australian industry, then the Commonwealth and then society. But they're all important. Because we were created for that purpose, most of our governance and most of our systems and processes are designed to manage the fact that we're going to work with industry. We just want to emphasise—it's about balance. If we swing too far the industry way, that's not good. As the management team of CSIRO, that's always our challenge: to stay in balance so that we do the right amount of pure science, the right amount of industry work and the right amount of work for government. If it would be interesting, we would love to have you come visit. We can meet the people that run the Missions Program and you can talk to some of the mission leads—you might really enjoy that—and we can show you the technology we're developing.

Senator BARBARA POCOCK: Thank you, Dr Marshall.

CHAIR: Senator Cox, online.

Senator COX: Thank you, Dr Marshall, for your opening statement. My question circles around fracking chemicals. Is that something that you can answer, or will there need to be somebody else?

Dr Marshall: Sorry, I couldn't hear the first word. Which kind of chemicals?

Senator COX: Fracking chemicals—BTEX.

Dr Marshall: Yes. No problem.

Senator COX: Does CSIRO provide any advice to state governments in relation to BTEX?

Dr Mayfield: We also have with us today Dr Damian Barrett, who is director of our GISERA activity, which is what I think you're referring to. We've done a number of studies in that area, around fracking chemicals and understanding what they do, and, more recently, we've completed a health study around these sorts of issues. I might invite Dr Barrett to answer any specific questions you might have.

Dr Barrett: Over the last decade, we've done a number of studies looking at the constituents of natural gas that is produced in various basins in Australia. We've looked at a range of chemical constituents associated with that gas production. In some cases, we've looked at so-called BTEX chemicals—benzene, toluene, ethylbenzene and xylene. For example, in Queensland, we've done air quality studies that have looked at various chemicals, including some of these chemicals. That particular study showed that the air quality guidelines were not exceeded in the measurements that we have taken. We've looked at various chemicals in flowback associated with hydraulic fracturing and the role of microbial organisms in breaking down those chemicals, including flowback from hydraulic fracturing of test wells in the Beetaloo basin and Northern Territory. The various metals and other compounds, such as BTEX, were incorporated into the analyses there. I can provide you, on notice, information that has directly come out of that work, rather than trying to rely on my memory here and now.

Senator COX: That would be great. Thank you very much, Dr Barrett. My question really circles around some recent coverage—in fact, on 19 May, in the *West Australian*, and today. Media outlets have uncovered some information in relation to the Western Australian government considering using carcinogenic chemicals that are actually banned under Western Australian laws. I'm glad you've covered that—slightly—in the work you've done in the Beetaloo. We know it's banned in Queensland, New South Wales, WA and the Northern Territory. This heavily redacted information was about the draft code of conduct in relation to hydraulic fracking, and it's post the moratorium here in Western Australia. Has CSIRO provided any direct advice to the Western Australian government about its use or inclusion, or in fact information in relation to BTEX in particular?

Dr Barrett: I'd have to take that question on notice to get the specifics of what you're asking. CSIRO provides advice to state, territory and Commonwealth governments on a range of matters associated with natural gas

production, including input into code of conduct preparation by state and territory governments. I'm aware of previous input to the Western Australian government on a range of matters, but I'll take it on notice to provide specific information associated with BTEX advice to the Western Australia government.

Senator COX: Can you, for the record, talk us through the use of this chemical in particular and where it's found—just so that I can make sure I have that information on hand.

Dr Barrett: Yes. Previously, various chemicals have been used in hydraulic fracturing fluid for a range of purposes—that is, principally to move a proppant into the fracture system to hold that fracture system open once the hydraulic fracturing fluid is removed. That's a technique that was used a number of decades ago. It's not been prevalent in Australia, particularly in recent times. As you noted, BTEX chemicals are banned from addition to hydraulic fracturing fluids. Our research inside CSIRO on the composition of hydraulic fracturing fluids and drilling muds—the work that we've done—shows there are no BTEX chemicals used in those formulations.

BTEX compounds are found naturally as geogenic chemicals associated with formations that produce oil and gas. Depending on the circumstances, the physical and chemical conditions at depth, those chemicals can be brought to the surface when hydraulic fracturing fluids flow back. At the surface, they are treated using standard industrial wastewater treatment methods.

Senator COX: Can you confirm for me the reason health departments across the country are quite specific in providing direct advice to our state and territory governments in particular—and I'm not sure of the extent to which CSIRO provide this advice to the Commonwealth government—around the health concerns of that flowback and the use of BTEX. Can you elaborate a little bit on the exposure to these chemicals and some of those direct health links that you know of?

Mr Barrett: I don't think I'm in a position here now to cover off, in a comprehensive way, the health impacts of these various chemicals that we're talking about. I think it'd be preferable to take that question on notice and provide an accurate piece of advice to you, Senator.

Senator COX: That would be great. Can you tell me if CSIRO or DISR are actually providing direct advice to the federal government in relation to making sure that BTEX is banned within the EPBC, particularly as we move towards the reform piece that's coming up?

Mr Barrett: As far as I'm aware, CSIRO is not providing scientific advice associated with BTEX to the department around the EPBC Act. If we were requested to provide that advice, of course we would.

Senator COX: That's great. Thank you very much.

CHAIR: I'm going now to Senator Rennick.

Senator RENNICK: Hi, guys. How are you going?

Dr Marshall: Good. Thanks, Senator.

Senator RENNICK: I was in the environment committee last week and I asked a very simple question. It's often told to me by some of my opponents on the other side of the chamber that renewables are cheaper, and I asked, 'If renewables are cheaper, why are energy prices always going up?' The reply was, 'Because that's what the GenCost report says.' I found that quite interesting in a sense—that one's a real life crisis and one's a model. I'm going to ask you some questions about the assumptions used in the GenCost report, if that's okay. I note that the GenCost report assumes a capacity factor for wind farms of around 40 per cent, and the actual capacity factor for the wind farm fleet for 2018, 2019 and 2020 was 28 per cent, 28 per cent and 27 per cent, respectively. Have you ever thought about changing the assumption in GenCost from 40 per cent to 27 per cent for wind capacity?

Dr Mayfield: I can kick that off and then I'll invite Mr Graham to the table, who'll be able to go through a lot more detail. These sorts of considerations come up each iteration of GenCost, as we look at performance in the system and work with the consulting group, which includes industry players and governments, to work out what the most appropriate assumptions going forward are. So it's looked at on a regular basis and it's looked at using the data for what's actually been happening out there in the NEM and how it's performed. Mr Graham might be able to go through that in a bit more detail for you, but they're being constantly honed.

Senator RENNICK: Sure.

Mr Graham: We use capacity factors in two different ways in the GenCost report. One way is to, if we're doing system modelling, use the half-hourly profiles that are published by AEMO, which are to be used in any sort of Australian electricity modelling, and they have that for different places all across Australia. But, when we're producing what's called levelised cost of electricity data, we're not modelling the whole system; we're just modelling the delivered cost of energy from different technologies. There are lots of uncertain factors in that, like the capital cost, the fuel cost, the operating cost and the capacity factor. So what we do is provide a range. We

provide a high range for the capacity factor and a low range. That gives us the cost ranges that we publish for energy from the different technologies. We've tended to be on the generous side around new technologies. We say they're probably about average or better. For example, the range that we use for black coal is 60 per cent to 80 per cent, but you can find, historically, black coal plants that might have only operated at 40 per cent. It's the same for wind. The best wind plant is 48 per cent, in the last 10 years. The average is generally about 33 per cent, and that's from the data that we have. But you'll find a wind plant that's maybe as low as 20 per cent. We tend to go from the average level up to the best plant, and that tends to be what we use for our range.

Senator RENNICK: How do you estimate the number of kilometres of transmission lines, for example, that you need to install to get renewables to 82 per cent of the grid by 2030? Have you got some sort of estimate for that?

Mr Graham: The Australian Energy Market Operator publishes all the potential, useful transmission projects that could be used if we wanted to connect up different renewable energy zones. You put all those projects into the model, then you ask the model to select which of these transmission projects is the least cost to deliver a certain outcome. It depends on what you're modelling; if you're modelling a renewable share, or you're modelling an emission outcome, your model will choose the amount of transmission that is the lowest cost to achieve that outcome.

Senator RENNICK: Does the model take into account the cost of recycling renewables and cleaning them up?

Mr Graham: There's no modelling that we do that includes the cost of recycling in the GenCost project.

Senator RENNICK: Thank you. I'll leave GenCost alone. Just looking at how carbon dioxide is calculated for the purposes of net zero, does the land use category include natural offsets, and is the treatment of land and carbon offsets inland the same in Europe and Australia, given that Australia has a much larger landmass per head of population than, say, Europe?

Dr Mayfield: We can probably talk to the Australian case. We can't really talk to the European case. These are the numbers that are captured in the National Greenhouse Gas Inventory. It's looking at the broad land use and forestry activity. It's trying to understand the full, available emissions or reduction of emissions available through that. We have our methodologies to do that. The ERAC—the Emissions Reduction Assurance Committee—looks at the methodologies used to estimate some of those changes in emissions going forward. That system comes together, but the department runs that—not CSIRO.

Senator RENNICK: Is there a consistent standard of counting carbon captured in soil between Australia and other countries?

Dr Mayfield: Australia has a standard on how we try to do that. From time to time, we try to improve that. It's part of the ERAC work to look at methodologies and test them. You'd be aware of the recent work that Professor Chubb did looking at Australian carbon credit units, which was to try to understand whether we're using the best methodologies.

Senator RENNICK: What I'm getting to is our competitive advantage. Are we actually using, counting and offsetting all the carbon storage in the soil in a similar way to what Europe is? Do we get to maintain our competitive advantage because of our large natural resource base?

Dr Mayfield: I wouldn't put it in terms of competitive advantage. I think what we're trying to do is get to the truth of the actual amount of emissions reduction being achieved and get our best estimate. These things are very difficult to determine, given that you're talking about many different types of landscapes and many different types of land uses when it comes to agriculture. We're trying to get the most robust methodologies to get us the best estimate. In doing the carbon budget for Australia, we're using the best numbers possible. CSIRO works on methodologies to help with that. We work on soil carbon. We work on forestry and land use and clearing, as well.

Senator RENNICK: This is my last question. Just so I'm clear, is it true that CO₂ absorbs at certain frequencies and then emits at other frequencies? My understanding is that CO₂ absorbs at 2.8 microns or thereabouts, which is incoming radiation, and then it also absorbs at about 14.8 or 15 microns, with a bit of broadening, on the way out. Is that a fair assumption to make?

Dr Marshall: Yes. It absorbs in the mid-infrared because of the resonance of the molecules.

Senator RENNICK: Excellent. Thank you.

Senator ROBERTS: I have a question on the documents tabled. Is that for discussion?

CHAIR: Yes. I've seen that document. I think it's being distributed. If the deputy chair has no objections, we will table the documents.

Senator ROBERTS: Thank you again for being here. I love your tie, Dr Marshall!

Dr Marshall: It's a company tie from Pawsey supercomputers in Western Australia.

Senator ROBERTS: I want to recap first, Dr Mayfield. Do you see the graphs there? In 2009, after the global financial crisis in 2008, and in 2020 during the COVID lockdowns, we experienced severe global recessions, almost a depression. Energy use fell dramatically and so did the human use of hydrocarbon fuels—coal, oil and natural gas—for transport, residential and industry purposes. That led to dramatic reductions of carbon dioxide from human activity. Yet, despite dramatic cuts in human carbon dioxide output, atmospheric carbon dioxide levels continued rising, as you can see.

On 29 October 2019, in response to my question about the severe recessions in 2009, causing severe cuts in hydrocarbon fuel usage, you said—and I have the transcript here, 'There were inflection points in the graphs of atmospheric carbon dioxide levels.' I've waited patiently for almost three years, giving you a chance for the inflections to appear. The graphs show no inflections. Could you please, on notice, specify the dates and duration and quantify the extent of the inflections you claim—or, to regain some trust, admit your error. Trust is important to me, Dr Mayfield, yet you have betrayed our trust in you and CSIRO. There are no inflections there, but I leave it open to you with a question on notice.

Dr Marshall: Senator, with all due respect—

CHAIR: Senator Roberts, you've made a statement that I really need to give Dr Marshall a chance to respond to. I'll give you more time, but I need to give—

Senator ROBERTS: I said 'my' trust in him is gone. I didn't say he was untrusting.

CHAIR: I'll give you more time, but I'm going to give Dr Marshall a chance to respond.

Dr Marshall: I mean, come on, Senator. You've met Dr Mayfield many times.

Senator ROBERTS: I have.

Dr Marshall: I'm sure you know that he wouldn't deliberately betray your trust. I don't think you meant that, did you?

Senator ROBERTS: Trust combines two things: competency and integrity. An honest doctor with good integrity who is incompetent, I don't trust. An incompetent doctor who I don't trust—

CHAIR: No. Senator Roberts, you really can't make those statements.

Senator ROBERTS: I'm not accusing him of lying, Dr Marshall.

CHAIR: It's reflecting negatively on a witness who's given their time to us today. I'd like to leave it there. I have given Dr Marshall a brief chance to respond. I'd ask you to take another direction.

Senator ROBERTS: I go back to my question on notice.

Dr Marshall: I can respond to the question about inflections, if that's helpful.

Senator ROBERTS: I would like you to specify the dates and duration and quantify the extent of the inflections that Dr Mayfield claims.

Dr Marshall: I think this will help. It's something I prepared earlier. This is a chart of the temperature pretty much since the beginning. A lot of inflections—

CHAIR: Dr Marshall, I'm afraid that, even though you are trying to assist the committee, we're unable to use what are described in the standing orders as 'props'.

Dr Marshall: Okay, sorry.

CHAIR: You'll have to put that down and speak to it.

Dr Marshall: I'm sorry. But the inflections are on that chart.

Senator ROBERTS: Is the graph identical?

Dr Marshall: I can give it to you after the session, if that's helpful.

Senator ROBERTS: Again, I'd like you to specify the dates of the inflections and the duration of the inflections and quantify the extent of the inflections that Dr Mayfield claimed.

Dr Marshall: Certainly.

Senator ROBERTS: Thank you. In Senate estimates hearings in 2019, I lowered the bar for CSIRO, asking you to simply provide the specific empirical scientific evidence—the logical scientific points—identifying a statistically significant change in any climate factor, specify that change and specify the statistical analysis, methods and data. In response, Dr Mayfield immediately held up what he said was a copy of one of CSIRO's

previous slide presentations to me and claimed it was in there. My colleagues and I have reviewed both CSIRO documents—both the presentations—and found neither document identifies any statistically significant change in climate. They specify nothing of that kind. Neither specifies any such changes, nor the statistical analysis, methods and data, nor the sources. That's what I requested. Dr Mayfield was wrong. My question now is, Dr Marshall: on notice, please identify in both the CSIRO presentations the specific empirical scientific evidence identifying a statistically significant change in climate, specifying that change and identifying the statistical analysis, methods and data. Please specify its location within the CSIRO presentation. When I say 'a significant change in climate', I mean a change in climate process. It could be a change in temperature, atmospheric temperature, ocean temperature, storm severity, frequency or duration, or flooding frequency or duration—any statistically significant change to climate processes.

Dr Marshall: If we explain this data here, which is ours and BOM's, is that what you want? Do you want an explanation of that?

Senator ROBERTS: Yes.

Dr Marshall: It is ocean temperature that we measured for about 80 years and then terrestrial temperature which BOM has measured.

Senator ROBERTS: I will leave it to you to submit what you think. I've given you the specifications of what—

Dr Marshall: We can definitely table this, if that is helpful.

Senator ROBERTS: I would like you to give me an answer. I asked you the question. What I would like—and I'll say it again—is for you to identify the specific empirical scientific evidence identifying a statistically significant change in any climate factor, specify what the change is, specify the statistical analysis, methods and data and specify its location within CSIRO's presentations.

Dr Marshall: Yes.

Dr Mayfield: Senator, can I refer you back to the *State of the Climate 2022*. That's the most recent one. I know you don't like it. I know you don't agree with it. There was a lot of evidence sitting in there and that's what I would table.

Senator ROBERTS: I will say it again. I want you to identify the specific empirical scientific evidence—

CHAIR: Senator Roberts, there is a standing order in relation to repetitive questions. I want to clarify whether you have put that on notice.

Senator ROBERTS: Yes.

CHAIR: I think the *Hansard* will record that. We can move to the next question.

Senator ROBERTS: I'd like to move to FullCAM. Is it accurate to say that FullCAM, which estimates carbon sequestration from human induced regeneration of trees, is an essential model used in calculating carbon dioxide credits?

Dr Mayfield: Yes, that is correct.

Senator ROBERTS: Is it true that you have admitted that FullCAM systematically overestimates sequestration in areas of pre-existing vegetation?

Dr Mayfield: You will be familiar with—and I mentioned it earlier—the Chubb review on Australian carbon credit units. As part of that, they looked at human induced regeneration. They also looked at the FullCAM model. We've also been reviewing that. In the time period where those ACCUs apply, we believe that it's broadly a very good representation. There's always the opportunity to improve these models as time goes by, but that's a robust model to use at this point in time and it will continue to be used. Those were the findings of the independent review.

Senator ROBERTS: We're relying on an email from Keryn Paul to Andrew McIntosh on 12 October 2021 from a freedom-of-information document. It said: 'CSIRO admits that FullCAM systematically overestimates sequestration in areas of pre-existing vegetation.'

Dr Mayfield: In terms of context there, that is referring to out-years well beyond 25 years and it has been reviewed by Professor Chubb, who's a former Australian Chief Scientist—

Senator ROBERTS: I know who he is.

Dr Mayfield: and his panel. They were very comfortable that that model was doing the job it was intended for at this point in time. With all of our models, we constantly improve them as we get better scientific information

and hone them. But we are very comfortable with what it does and the job it performs. I disagree with your earlier statement.

Senator ROBERTS: Okay, thank you. We will pursue that further. Let's go to GenCost. *GenCost 2021-22* assumes capacity factors of 40 per cent for wind and 26 per cent for solar. For financial year 2022, the National Electricity Market capacity factors were actually 29 per cent compared to your assumed 40 per cent for wind and 19 per cent compared to your assumed 26 per cent for solar. Those are significant differences. Your assumed capacity for wind is 50 per cent higher than the actual history on the National Electricity Market. These are huge margins of error when we need very precise generation for our energy market. Why are you so optimistic about the capacity factors compared to real-world data?

Dr Mayfield: Again, I'll refer to the answer that Mr Graham gave recently to the other senator. We are looking at a couple of different applications. We look at a range from what we would call the average performance to best performance. So we're looking at what can happen at different locations and under different conditions.

Senator ROBERTS: But the average grossly overstates—

Dr Mayfield: I can get Mr Graham to walk through the numbers he talked about before again, but that's how we are looking at the data that is there in the NEM. It's lived data. It's the same stuff that you're looking at. We are trying to put that to work in understanding the range of costs. There are different capacity factors in different locations around Australia.

Senator ROBERTS: I understand that, but your assumed capacity for wind was 50 per cent higher than the actual history on the National Electricity Market. Your assumption is higher than the actual history.

Mr Graham: I think it's probably useful to clarify that we don't provide an average capacity factor in GenCost. We provide a range. That range is meant to represent what would be the likely range for a new project. We're not trying to say that that range, or even the midpoint of that range, is the historical range for that technology. That's not what we're saying, and we don't say that anywhere in the GenCost report.

I can tell you that for all new projects we tend to point to capacity factors that are somewhere around the average to high level, because we assume that if people bring a new project to market it will probably do a bit better and probably won't be at the lower end of the range, for example. Having said that, the direction of your question is a line of questioning that we've had through the recent consultation process, which we run each year. As part of the final GenCost report we'll be going into this in a lot more detail, so some of these misunderstandings might be clarified for you in that final report.

Senator ROBERTS: I may be wrong here, but from memory, at the last Senate estimates session you were asked the question about why the capacity factors are so much higher than actual. You said: 'For solar, it's because we expect it's early on the development curve, and there'll be much more capacity for improvement in the future.' You said, 'not so much for wind'. Now you're telling me there's a 50 per cent improvement for wind?

Dr Mayfield: I think you're confusing learning rates with capacity factors.

Senator ROBERTS: No, I'm assuming learning rates. These are assumed capacity factors. That's what you're telling me.

CHAIR: Senator Roberts, I need to share the call. Do you have a final question?

Senator ROBERTS: That'll do. I'll come back to the rest.

CHAIR: Senator Whish-Wilson?

Senator WHISH-WILSON: I have a number of questions relating to CSIRO's environmental monitoring and management plan for deep-sea mining. The contract with TMC and DeepGreen. Have I got the right—

Dr Mayfield: I can try and address those for you.

Senator WHISH-WILSON: I've asked questions on this before and put questions on notice and also looked through an order of production of documents. I understand from the responses I've received from the department that this contract was approved by CSIRO's Oceans and Atmosphere business director, went through an ethics committee, and wasn't relayed to the CEO. Is that correct?

Dr Mayfield: Certainly, the decision was made within the delegation of the business unit director at the time.

Senator WHISH-WILSON: Was this decision relayed to the minister or the minister's office or departmental officials?

Dr Mayfield: No, it wasn't.

Senator WHISH-WILSON: I understand on 22 November last year the science minister, Mr Husic, issued CSIRO a statement of expectations which requires that CSIRO engage with the minister and department on commercial arrangements it enters into, particularly those where large and/or private companies are involved or the partnerships may be of public interest or raise a real or perceived conflict of interest. Obviously we're dealing with a commercial entity here that has a controversial past. I believe it does raise conflicts of interest and it's certainly a matter of public interest. This is, as you're probably aware, a highly contentious issue. Have you now raised this with the minister's office or with departmental officials?

Dr Mayfield: I think in terms of their awareness with the departmental officials, obviously with your order to produce documents there's been a discussion around that. I'm not in a position to talk about whether that's been raised with the minister's office.

Senator WHISH-WILSON: Are there any other processes about raising this with the minister's office following that directive?

Mr Munyard: The contract was executed prior to the statement of expectations, as you say. We've obviously had discussions with the minister's office since, but it wasn't raised with the minister's office at the time of signing that contract. You're indeed correct.

Senator WHISH-WILSON: Good. I wanted to confirm that you've had discussions with the minister's office. My next question is to the minister. Minister, are you personally aware of this issue?

Senator Ayres: The minister is, I think, aware of the issue. I wasn't aware of the issue myself until I was briefed. This work, as the evidence you've adduced so far—the contract was signed for the work, and the work was developed prior to the statement of expectations.

Senator WHISH-WILSON: Minister, has the Labor government got a policy on deep sea mining? I understand you've made various public comments around concerns for deep sea mining but you haven't signed on to the international moratorium on deep sea mining. Is that something your government is currently formulating?

Senator Ayres: You must mean that the minister has made some comments.

Senator WHISH-WILSON: Indeed.

Senator Ayres: I'm not aware of those comments. I'm happy to come back to those issues in Resources. I'm happy to undertake to answer those questions in that section.

Senator WHISH-WILSON: Thank you—if you could. Can I ask you to take on notice as well whether the minister has had any discussions on this issue with the foreign affairs minister, given how very diplomatically sensitive this is, and with the environment minister, given a number of environment groups have written to the science minister advising him they believe this cuts across at least three international agreements Australia signed up to.

Senator Ayres: Why don't we take all that on notice. Just to be clear: you mean the science minister?

Senator WHISH-WILSON: Yes, correct—whether this issue's been discussed with the environment minister and with the foreign affairs minister.

Senator Ayres: We'll take it on notice and be as helpful as we can.

Senator WHISH-WILSON: I appreciate that; thank you.

To CSIRO: when you were approached by the company to do this work, there would have been a process, presumably, of due diligence. I understand this went to the ethics committee. Was the reputational risk to CSIRO considered by that committee entering into this agreement?

Dr Mayfield: In terms of how the work came about, there was a tender put out—so CSIRO responded to the tender. In terms of the decision-making process for the delegate, risk is always a factor we take into consideration. If I can be really clear about the nature of the work being taken on: this is about putting in place the best form of environmental framework that would inform decision-making going forward. We see this as setting a very high standard in this area. CSIRO doesn't support mining or anything like that, but we want to have the best environmental framework—

Senator WHISH-WILSON: Apologies if I'm cutting across you, but could you stick to my questions because I've got quite a few in a short period of time—and I say that respectfully. In terms of the company, when you decided to enter into a tender and got the contract, did you consider the track record and reputation of TMC or DeepGreen, including its key personnel, as part of your decision-making?

Dr Mayfield: I'd have to take that on notice.

Senator WHISH-WILSON: Thank you. I understand there have been some financial concerns around TMC. Were they considered by the ethics committee as well?

Dr Mayfield: Again, I'd have to take that on notice. I'm not familiar with that.

Senator WHISH-WILSON: I will put more detail to you on notice. In conducting its due diligence, did CSIRO review the quality and scope of the research conducted by TMC which will underpin the modelling to be conducted by the consortium? I understand they are providing you with the data; this is not data CSIRO is collecting. The contract is that they provide you with the data. But did you conduct your own due diligence on their ability to collect that data and the efficacy of their processes?

Dr Mayfield: I expect it would have been part of the considerations. Again, I'd have to take that on notice to give you a specific answer. Certainly we very much understand what's required to put in place these integrated assessments, and making sure that that's available would be a consideration to take on the work.

Senator WHISH-WILSON: Okay. I did raise a number of concerns with the data and with other projects TNC's been involved with, on notice, and the response I got back from CSIRO was that it was outside the scope of their contracts. I just want to go through this with you. CSIRO states that it complies with the Australian Code for the Responsible Conduct of Research, which requires use of high-integrity datasets, but you won't be collecting any of the data; you'll use the baseline data provided by the company. TNC's lack of baseline data and lack of scientific rigour has been criticised in other projects that are on record. What assessment have you undertaken to ensure the data provided by TNC is of that highest quality and highest integrity?

Dr Mayfield: I'd have to take the specifics of that on notice, but I can say that, in terms of putting in place that integrated ecosystem assessment and understanding what's required for the baseline, we'd be able to set the standard as to what is required in any forthcoming EIS that would be done by another party. So we're trying to ensure that we have the highest standard of data available for those assessments to be undertaken.

Senator WHISH-WILSON: Do you audit that, for example? Do you have any ability to oversee TNC's collection of data that they're providing you?

Dr Mayfield: I don't believe we do.

Senator WHISH-WILSON: Is that a source of concern for you that you don't, given allegations that have been raised in relation to data collecting, for example, on deep-sea mining trials off PNG?

Dr Mayfield: With all data, we have to look at that and reconcile whether it's at the right quality. We're constantly dealing with varying qualities of data, so we have ways of dealing with that. I'd have to talk to the project team to understand how they were specifically dealing with it—so, again, I can take it on notice—but it's a common challenge that we have in all these areas.

Senator WHISH-WILSON: I understand. Can you say with confidence today that the data that you've obtained is intrinsically reliable and complete and will stand up under scrutiny?

Dr Mayfield: Again, I'll take that on notice and work with the project team to provide you with an answer.

Senator WHISH-WILSON: I understand that the response from CSIRO to my questions is that the integrity of the company or its past track record might fall outside the scope of your contract, but I'm sure you'd agree that the integrity of the data should be a critical factor for CSIRO in conducting this project. Do you agree?

Dr Mayfield: Yes—and the integrity of the framework that's put forward. We see this as a great opportunity to set the framework by which you'd undertake this work going forward at the highest integrity. That's our objective here.

Senator SHOEBRIDGE: You were asked some questions by Senator Roberts. Have you got any graphs or other material that you could provide the committee to help us have some context on that? If so, could you provide them to the committee now?

Dr Marshall: We've got the ocean and land temperature data, if that's helpful.

Senator SHOEBRIDGE: If you could tender them to the committee, that would be useful.

Dr Mayfield: We're also quite happy to put forward the *State of the climate* work that we do in conjunction with the BOM every two years, which picks up a whole representation.

Senator SHOEBRIDGE: I've read that.

Dr Mayfield: A lot of those graphs are in that.

Senator SHOEBRIDGE: It's just so that we can get that on the record right now, anything you can. If you could hand that up, that would be useful.

Dr Mayfield: Yes. We are happy to put those on record.

Senator SHOEBRIDGE: There have been concerns raised repeatedly about the extent of funding that CSIRO has from external sources, not from the Commonwealth. Do you have some data that shows the extent to which CSIRO is funded by Commonwealth funds and the extent to which it's funded by external funds? What's the proportion?

Dr Marshall: Yes. We can give you those rough numbers now, if you'd like.

Senator SHOEBRIDGE: That would be good.

Mr Munyard: In our annual report—sorry; I'm just opening it up to the right table.

Senator SHOEBRIDGE: And while you're going in there and opening that up, the next question is: how much money have you received from the fossil fuel industry?

Mr Munyard: To answer your first question, on page 9 of our 2021-22 annual report there's a table that articulates our revenue source. For example, in the 2021-22 financial year, we received \$949 million of appropriation. On top of that, we received \$425.6 million of what we call co-investment, consulting and services, which makes up the majority of our external revenue. Within that \$425 million, there's \$269.4 million, which is revenue from Australian governments—that could be federal or state governments—and the remaining is from the private sector, CRCs, rural industry research and development corporations, and overseas entities.

Senator SHOEBRIDGE: How much have you received from the fossil fuel industry—sorry, that was 2021-22?

Mr Munyard: That was 2021-22.

Senator SHOEBRIDGE: We're now in 2022-23 and you've got a budget for 2023-24?

Mr Munyard: Correct.

Senator SHOEBRIDGE: Do you know how much money you've received for the current financial year?

Mr Munyard: I'll have to take the figures that are aligned to this on notice, sorry.

Senator SHOEBRIDGE: Alright. Do you have a budget for next year?

Mr Munyard: We have a budget that's contained within the portfolio budget statements. That doesn't go to the level of detail that I've just articulated.

Senator SHOEBRIDGE: But you must have a budget to show how much you expect to come from Commonwealth revenues, how much you expect to come from external revenues.

Mr Munyard: We don't necessarily budget to that level, but we do generate what we call an opportunity system which we'll be able to—

Dr Marshall: We definitely have the data.

Mr Munyard: We'll be able to provide you that data.

Dr Marshall: It's not materially different next year to what it was last year, but it is a little bit higher.

Senator SHOEBRIDGE: For 2021-22, 2022-23 and to the extent you can for 2023-24, could you break it down into Commonwealth revenue and other government revenue, whether that's state, territory or Commonwealth, apart from a direct grant, as well as corporate revenue. I'm sure you'd have records of which corporation have provided the funds, so if could you break that down by dollar incorporation that would be appreciated.

Dr Marshall: We will, but can we come back to you on that last part? I'm just not sure how granular we can be, but, if we can, just let us circle back and see what data we actually can give you.

Senator SHOEBRIDGE: Even for integrity basis you must keep a record of how much individual corporations have given you?

Dr Marshall: It's not that. I just don't know how much time it would take to pull all that together. What you first asked for, we can get probably in real time.

Senator SHOEBRIDGE: Okay. Yes, if you get the first in real time at some point today. I imagine the granular data of each corporate may have to be taken on notice.

Dr Marshall: Yes, if that's okay.

Senator SHOEBRIDGE: That's okay. I want to ask about the Gas Industry Social and Environmental Research Alliance? Is that still part of CSIRO?

Mr Munyard: Yes, CSIRO still undertakes work through GISERA.

Senator SHOEBRIDGE: 'Still undertakes work through it'?

Mr Munyard: Well, it's an alliance with a range of funders—government, both federal and state, as well as money that we use in that area—and with industry.

Senator SHOEBRIDGE: Last time I checked, one-third of its funding came from gas companies, including Santos and Origin Energy. Is that still the case?

Mr Munyard: Yes; I think it's about 32 per cent.

Senator SHOEBRIDGE: And how much of that comes from Santos?

Mr Munyard: I'd have to take that on notice, specifically what comes from Santos.

Senator SHOEBRIDGE: But one of your board members is a former CEO of Santos—isn't that right? Mr Knox?

Dr Marshall: Yes.

Senator SHOEBRIDGE: How do you deal with that obvious conflict of interest? A board member and doing work for Santos?

Dr Marshall: Well, he was a former CEO; he's not the current CEO. I think he's currently chair of Snowy Hydro.

Senator SHOEBRIDGE: So is he still taking part in any deliberations in relation to GISERA?

Mr Munyard: If I can talk to the GISERA model—

Senator SHOEBRIDGE: If it's about the involvement of Mr Knox then, yes.

Mr Munyard: He has no involvement in GISERA. The model that we apply—it's critical that the work that gets done there is independent. It is important it is raised independently. We have a range of research advisory committees which are in each jurisdiction—whether it's Queensland, Northern Territory, New South Wales—that are made up of different representatives. There are no gas industry representatives there, but there is a lot of community, and they have the balance of decision-making power. They determine the work that gets done. CSIRO delivers that work and uses its normal peer-review processes to ensure the integrity of that work. That's how we're undertaking that work. The companies, while they provide some funding, have no influence or say over what work gets done or how it's delivered.

Senator SHOEBRIDGE: Perhaps on notice you can advise me on how many occasions in the last financial year and this financial year to-date the issue of the Gas Industry Social and Environment Research Alliance has been raised with the board in any form and whether or not Mr Knox participated in those board deliberations and whether or not Mr Knox declared a conflict of interest in relation to those board deliberations? Would that be possible? I don't expect you'd have that in your head now, Dr Marshall.

Dr Marshall: Senator, I sit on the board and I can't remember it ever coming up, but we will take it on notice just to be sure. It's not something you'd normally discuss around the board table. Again, Mr Knox left Santos many years ago, so it's not really—I don't believe he has any current engagement and hasn't had for many years.

Senator SHOEBRIDGE: Have there been issues raised with management about Mr Knox being overpaid for CSIRO?

Mr Munyard: CSIRO has become aware, in this calendar year, of an overpayment to Mr Knox.

Senator SHOEBRIDGE: Of how much?

Mr Munyard: The value is approximately \$200,000.

Senator SHOEBRIDGE: How on earth did CSIRO overpay a board member who's also the former CEO of Santos by \$200,000?

Mr Munyard: We're working with the department at the moment to determine the exact situation. It relates to historical remuneration arrangements; it's not a recent matter. I understand it is part of a broader review that is being undertaken.

Senator SHOEBRIDGE: Has Mr Knox paid it back?

Mr Munyard: As I said, we're working with the department to determine the exact situation now, what is the legal basis for the overpayment, in order to advise our board and our chief executive on the next steps in relation to recovery of the overpayment. We will, of course, undertake that assessment ensuring the obligations of CSIRO and our accountable authority under the legislation such as the PGPA Act are upheld. We're going through that process now.

Senator SHOEBRIDGE: So the answer is, no, he hasn't paid it back?

Mr Munyard: He has not paid it back as yet.

Senator SHOEBRIDGE: Has CSIRO asked for it to be repaid? It's a massive overpayment.

Mr Munyard: We've only recently become aware of this, so we are working with the department, but we will be providing a recommendation once we work through the legal basis of the overpayment.

Senator SHOEBRIDGE: And to be clear: Mr Knox hasn't volunteered to repay it?

Mr Munyard: Not to my knowledge. I haven't discussed it personally with Mr Knox.

Senator SHOEBRIDGE: When did you become aware of the overpayment?

Mr Munyard: Me personally?

Senator SHOEBRIDGE: When did CSIRO become aware of the overpayment?

Mr Munyard: I'll have to take that on notice. I've only become aware of it in the last four or five weeks.

Senator SHOEBRIDGE: Dr Marshall, you're on the board?

Dr Marshall: I am, yes.

Senator SHOEBRIDGE: Has the board been advised of Mr Knox's overpayment?

Dr Marshall: Yes.

Senator SHOEBRIDGE: When?

Dr Marshall: Probably the same day that Mr Munyard become aware. I believe I called the chair that day to inform her.

Senator SHOEBRIDGE: When?

Dr Marshall: It would be—

Mr Munyard: We'll have to take it on notice. I understand a letter was written to the chair and she became aware of it. We'll take on notice when she was made aware. I have not seen a copy of that letter.

Senator SHOEBRIDGE: You're managing the overpayment and yet you haven't seen a copy of the letter?

Mr Munyard: We're working with the department on resolving the matter.

Senator SHOEBRIDGE: Have you seen a copy of the letter, Dr Marshall?

Dr Marshall: I haven't, no.

Senator SHOEBRIDGE: Will you provide the committee with a copy of the letter?

Dr Marshall: We can take that on notice.

Senator SHOEBRIDGE: Dr Marshall, I'm still none the wiser as to when you found out as chief executive?

Dr Marshall: I'll have to remember, but I'm pretty sure it was the same day at Mr Munyard found out.

Senator SHOEBRIDGE: Are we talking a year ago?

Dr Marshall: Oh God, no! This is much more recent than that.

Senator SHOEBRIDGE: Then you must have a memory! If it's only recent—

Dr Marshall: Senator, I get about 300 emails a day.

Senator SHOEBRIDGE: But I assume not a lot of them are telling you that one of your board members has been overpaid by \$200,000.

Dr Marshall: True.

Senator SHOEBRIDGE: That must have stuck in your mind?

Dr Marshall: Not that well. I'd rather not guess and give you an inaccurate answer. If I can take it on notice, I'd prefer to do that.

Senator SHOEBRIDGE: Can you find out in the course of today? Was it at a board meeting?

Dr Marshall: I can try.

Senator SHOEBRIDGE: Did you inform the board at a board meeting?

Dr Marshall: As I recall, I spoke to the chair about this issue.

Senator SHOEBRIDGE: Has the board been informed?

Dr Marshall: It would be the chair's role to inform the board.

Senator SHOEBRIDGE: It's your job, as chief executive, to provide appropriate information to the board relevant to the operation of the CSIRO. Are you saying you haven't told the board?

Dr Marshall: No. I'm saying I told the chair of the board, and it would be up to the chair of the board to decide whether that information would be shared with the whole board.

Senator SHOEBRIDGE: I don't sit on your board—unfortunately, given how much you get paid—but I would expect the board would get a detailed briefing from management about an issue such as this, including one of the members of the board being overpaid by \$200,000. Are you saying that hasn't happened?

Dr Marshall: I'm not saying it hasn't happened. As a chief executive sitting on a board, you participate in most of the board discussions but not all. You might be familiar with any de-session that all boards have. It's possible this was discussed in a session where I wouldn't be present. That's why I don't want to guess. I would rather give you a properly thought-out answer on notice.

Senator SHOEBRIDGE: Why on earth wouldn't you seek the recovery of \$200,000 of public money that's gone to a member of your board who is also, at the same time, taking a very, very handsome payment for being chair of the board of Snowy Hydro—yet more public money? Why wouldn't you seek recovery of it?

Dr Marshall: As Mr Munyard said, we're in the process of determining the actual cause of the overpayment. That will then lead to the best solution of the other payment.

Senator SHOEBRIDGE: So you don't even know why he was overpaid \$200,000?

CHAIR: I'm going to pause you there for a moment. I see you're in a stream of questions there, but I've got three more senators seeking the call before 4.30.

Senator SHOEBRIDGE: I'll come back to it.

CHAIR: We're not going to get back to you before a break and before we'd like to release CSIRO. Are you able to conclude with just a—?

Senator SHOEBRIDGE: Not on this issue. I have another aspect of it that I need to investigate. I'm happy to hand over to Senator Whish-Wilson for the moment.

Senator ROBERTS: Coming back to FullCAM, Dr Mayfield, you mentioned about Professor Chubb. Let me ask categorically: Is there a specific overestimation of carbon dioxide sequestration in areas of pre-existing vegetation?

Dr Mayfield: We understand, as you get into the far out years, there is a very small overestimation but it's in long terms and it's not overly influenced by the level of vegetation. The model takes that into account as a starting input. So if there is vegetation already there, the model doesn't allow additional vegetation. If it's under-vegetated, it can.

Senator ROBERTS: So it doesn't allow for vegetated land?

Dr Mayfield: The model is quite sophisticated in understanding different landscapes and the level of pre-existing vegetation. It then tries to project forward as to what could become that vegetation over time, so it is trying to take all those factors into account. You can imagine the different landscapes have different rates of growth and things like that. That's what the model is doing. Ultimately, the review that we've done of the model says that in the time period where it's relevant, which is zero to 25 years, we think it does a reasonably good job of representing that, and there's no major overrepresentation.

Senator ROBERTS: So there is an overestimation but not a major one?

Dr Mayfield: It is small but it's within an acceptable bounds. It only happens in the very far out years, and we are aware of that.

Senator ROBERTS: In the model which underpins carbon dioxide credits, there's a systematic error which overestimates the amount of sequestration in some types of land cover. Will that mean that the companies locking up land to make money out of this market will make more money than they should?

Dr Mayfield: Again, if I come back to what I said before, any limitations of the model appear a long way out into the 20-plus years. Most of the work is done before that in terms of getting the credits. We're very comfortable, and that's the work the Chubb panel did in saying that model is broadly fit for purpose.

Senator ROBERTS: Did you say broadly fit for purpose?

Dr Mayfield: Yes.

Senator ROBERTS: So we don't actually measure the carbon dioxide sequestered; it's modelled based on assessments. I'll come back to you next Senate estimates on my understanding of—I can't recall it in detail now—the way carbon dioxide is calculated—not measured, calculated. I'll come back to you on that. This idea of sequestering and trading carbon dioxide credits is one of the greatest scams ever pulled in this country. Let's move back to my initial question. You tabled these, Dr Marshall?

Dr Marshall: Yes.

Senator ROBERTS: They don't answer my question.

Dr Marshall: I am so sorry. I thought they did.

Senator ROBERTS: I'm seriously disturbed now about what you're saying. Because if you don't understand that that is not an answer to my question then you don't understand science. You don't understand English.

CHAIR: Senator Roberts, I'll pause you there for procedural reasons. I neglected to formally table the graphs that you're referring to that were tabled by CSIRO. I'll do that. The committee also formally tabled the graphs that you circulated earlier as well.

Senator ROBERTS: Dr Marshall, I asked for inflection points after 2009 and 2020. The graph only goes to 2010.

Dr Marshall: With all due respect, I was answering the question you asked after that, which was: Do you have any data showing a change in the temperature? The graph I showed, the big one, shows the inflection points. So that's the atmospheric carbon dioxide, and the other graph is the raise in water temperature, which we measure, and the rise in land temperature, which the BOM measures.

Senator ROBERTS: Dr Mayfield was talking about inflections in the carbon dioxide in the atmosphere. Now you're giving me sea temperatures as evidence of carbon dioxide inflections? I asked for specific inflections of carbon dioxide in the record.

Dr Marshall: That is correct. You then asked me for evidence there had been a change in the climate, which I said I would give you, and that is the evidence. That was the second question you asked.

Senator ROBERTS: I asked you on notice to identify the specific empirical scientific evidence identifying a statistically significant change in climate, specifying that change—I want to know exactly what the change is you're claiming—and specifying the statistical analysis methods and data. Please, specify its location within either of the CSIRO presentations. Is that clear?

Dr Marshall: It is. Those two graphs are the data.

Senator ROBERTS: Where is the statistical analysis methods and data?

Dr Marshall: Well, the data is on those two graphs, and we can provide you the analysis methods if you want.

Senator ROBERTS: That's what I wanted.

Dr Marshall: That is the data.

CHAIR: This question has been taken on notice multiple times. I would ask you to ask different questions.

Senator ROBERTS: I'm making it clear that Dr Marshall has not answered the question.

CHAIR: That is because it's been taken on notice.

Senator ROBERTS: Are you aware of the term 'logical fallacies'?

Dr Marshall: I think I've heard you use that term before.

Senator ROBERTS: Other than me using it, you're not aware of it?

Dr Marshall: I've heard you use it but I don't think I've heard anyone else use it.

Senator ROBERTS: I don't think I've used it in Senate estimates.

Dr Marshall: Okay.

Senator ROBERTS: But you've never heard of that term 'logical fallacies'?

Dr Marshall: Only from when you've used it.

Senator ROBERTS: Appeals to authority—that is a logical fallacy. There are many logical fallacies. They are purporting science when they don't. We're logging logical fallacies in your statements in Senate estimates. You made a number of them. Are you aware of that?

Dr Marshall: No, I am not.

Senator ROBERTS: We look forward to another conversation on that. I ask you a question on GenCost 22. Can I please confirm the capacity factor you have used for black coal in GenCost 22 for the levelised cost of electricity? I've got 60 to 80 per cent. Was this capacity factor based on the National Electricity Market history?

Dr Mayfield: I can confirm that's the range of factors we use for black coal.

Senator ROBERTS: Wind and solar are given preferential dispatch in the National Electricity Market, meaning black coal never operates at its full capacity because it's artificially stopped from putting power into the

grid while wind and solar are favoured. The capacity factor of coal in the National Electricity Market is far from its actual potential. Using the National Electricity Market history for a capacity factor calculation is a breach of GenCost 22 new build methodology, as I understand it. You are meant to assess the capacity factor based on the technical capability, not the National Electricity Market history. Why did you break the new build methodology for the coal capacity factor?

Mr Graham: I'm not aware of the new build methodology in GenCost report.

Senator ROBERTS: In the GenCost 22 section on firming ratios, why have you not incorporated the cost of firming that is currently presently in the grid as part of the cost for solar and wind?

Mr Graham: One of the things we most definitely do in GenCost is take account of the cost of renewables.

Senator ROBERTS: Is that including firming?

Mr Graham: 'Firming' is not a term that I use, because other people use it and it can mean many different things. We use the term 'integration costs', and in our view that means anything that's needed to make sure that when you introduce renewables you can still do with reliable electricity.

Senator ROBERTS: And synchronised power?

Mr Graham: I'm not an engineer. Some of the modelling we do includes consideration of inertia and system strength, but I can't describe those things to you with any expertise.

Senator ROBERTS: I'm told GenCost '22 estimates a 20 to 34 per cent firming ratio required for wind and solar, yet CSIRO's own 2017 low-emissions technology road map—there's another nice collection of buzzwords!—concluded that a 30 per cent firming ratio was required for 67 per cent wind and solar penetration and a 75 per cent ratio for 90 per cent wind and solar penetration. How was the GenCost '22 result of 20 to 34 per cent reached when it completely contradicts the CSIRO's previous research on this matter?

Mr Graham: The low-emissions technology road map was researched I believe three or four years ago.

Senator ROBERTS: Six years ago, by the look of it.

Mr Graham: Right, and we used an older model, which didn't allow any trading between states and didn't include the role of things like peaking gas and other technologies. What we've learned since—we've designed a model that particularly captures all the things that support renewable generation, and we've found that you need a much lower ratio of storage than we initially found, in our older research. When we have newer research that has better methodologies and more accurate answers, that's what we tend to rely on, so that's what we're using for GenCost.

Senator ROBERTS: Coming back to—

CHAIR: Senator Roberts, you've had a 10-minute block there. I need to share the call. We're running out of time for this session. Senator Pocock?

Senator DAVID POCOCK: I was keen to talk about gene drive technology. I've seen the reports that you got funding to look at community perceptions towards gene drive and released a whole bunch of reports looking at different ways that it could be used. The final takeaway was that 68 per cent of Australians support the development of gene drive technology for pest control in Australia. I'm interested to hear about what other work is currently being done by CSIRO, or CSIRO in conjunction with other universities, on gene drive technologies.

Dr Marshall: There are a lot of applications for that technology.

Senator DAVID POCOCK: I'm more interested in invasive species, if that's helpful.

Dr Marshall: For pest control.

Senator DAVID POCOCK: Yes, for pest control.

Dr Marshall: We discovered the gene responsible for regulating human immunity back in 2018, which was kind of a world first, and we think there's an ability there to improve health of humans by altering the types of food they eat to enhance the strength and ability of that gene. It's a broad area. Kirsten, would you like to address that?

Ms Rose: I can certainly start. CSIRO does have a long and rich history working in gene technology, and we conduct research across the spectrum—everything from gene technology and microbes, plant and animal species, invasive species, as you've suggested. One of the ways we use gene technology is, for example, controlling mosquitoes—creating mosquitoes that are genetically engineered so that they don't transmit dengue fever, for example. That's one example of how we would use that technology.

Senator DAVID POCOCK: Is there currently any work looking at things like rodents or cats?

Dr Marshall: Are you thinking of the work to reduce the pest susceptibility of cotton crops? That is an example of that.

Senator DAVID POCOCK: No, there are other researchers. I think the University of Adelaide's been looking at gene drive technology to control, say, rat plagues. There's been a lot of talk over the years about using it to try and exterminate feral cats in Australia. And given that we now have a government that's committed to no new extinctions, and invasive species are such a threatening process here in Australia for so many species, I was wondering whether the CSIRO is undertaking any work in that area.

Dr Marshall: I'm with you now, Senator. I'm sorry about that. Dr Steele?

Dr Steele: You are almost certainly aware that there has been a project that CSIRO has been involved in with the University of Adelaide. It was looking for gene-drive applications to introduce populations of rats basically to be able to control rat populations in isolated islands and thereby avoid the impact on bird populations. It's actually been the subject of Senate estimates questions in the past—before your time, I believe. CSIRO was involved in a project that was fundamentally funded by DARPA and involved a number of US universities. Our active involvement in that project was in two bits. The major bit was our conducting risk analysis about the risks associated with the conduct of such a project, and off the top of my head I think we had something like \$200,000 of funding for the purposes of that. You'd probably be aware that the project funding in its total amount is actually much more significant than that. The overwhelming majority of the funding was for the genetic modification, and the genetic modification part of that project was being done at a university in South Australia. I'm going to put it that way; I think you're right, but I don't want to go on the record confirming that.

It's also the case that in other parts of CSIRO we have research being conducted on gene drive. I don't believe that we have yet been in a position where, in any of those projects, we have been introducing gene drive into species with the purposes of being able to get the vehicle being able to be used to control introduced species. It's certainly an area of research that we have done some planning and contemplation around. It's also an area of research where I think there are two other things to say. The first one is the application of that technology is always going to be in the control of a regulator, so that would be a regulated process. That's beyond CSIRO, so we've developed the technology and made sure we're comfortable with it almost certainly with collaborators, but any decisions to actually implement that sort of technology would be controlled by the regulators.

Senator DAVID POCOCK: Yes, I understand.

Dr Steele: The second one is to say that it's been the subject of discussion at the CSIRO board as to how we were controlling our involvement in those sorts of experiments and thinking about the risks associated with that sort of experimentation.

Senator DAVID POCOCK: Thank you. I note that there's been a lot of work over the years, and it seems to be a promising area. One of the issues raised was around safety regulation and, I think really importantly, social licence to actually do that. Based on the work that you've done, clearly there is the social licence. Since then, has the government said, 'Given the extinction crisis we're in, let's put some decent money into this and unleash the CSIRO and universities to try to lead in this field'? But I'm hearing that it probably hasn't happened, apart from the work that's been done on mice.

Dr Steele: The fact that we've done that community assessment work does evidence the fact that we have been thinking about that and have an interest in that area. I'm not aware of any decisions by government as a consequence of that information that we published, but I would expect that that would take a number of years to be evaluated, and the primary drivers of those would likely hang around the regulators and the posture of the regulators in relation to that.

Senator DAVID POCOCK: Should this be an area that the government could think that Australia could potentially lead in? How is the CSIRO placed to play a role in that?

Dr Marshall: When you look around the world at various interventions countries have tried to make in the environment, the track record isn't that great. But in Australia it is remarkably good—things like myxomatosis to deal with the rabbit plague and the dung beetle to deal with the fly plague. Australia is very careful about the interventions we make, and we spend sometimes decades doing rigorous science to make sure we do them right. The history this country has in doing that is something most Australians don't know about but should be very proud of. You've just got to give people time with this technology because, with exponential technologies, if you get them wrong, they can go out of control.

Senator DAVID POCOCK: I understand that, but it seems like we're not actually doing the work. We seem to have identified that these are potentially genes where you could modify, say, rats or mice to only have male offspring, which is great to know, but it's going to take a while to actually—

Dr Marshall: That was the mosquito example that Ms Rose referred to.

Senator DAVID POCOCK: In Adelaide they've been looking at that with promising results. I was interested to learn if we are actually—it seems like an area that we should be investing more in, given the challenge we face.

Dr Marshall: We're exploring it, absolutely, but we go very cautiously because of the potential of the technology.

Senator DAVID POCOCK: If you're exploring it, what does that look like?

Dr Marshall: Senator, I can show you exactly what we're doing. Any chance you'd be able to come to Geelong and we could actually show you the Australian Centre for Disease Preparedness? We do most of this work in a very highly controlled environment.

Senator SHOEBRIDGE: He doesn't leave the ACT!

Senator DAVID POCOCK: Is that more the mosquito side of things?

Dr Marshall: We do vectors there, mosquitos. There's an amazing team there. There are other places you could see. Could we follow up with you and maybe give you some options?

Senator DAVID POCOCK: I'd really love to explore more of the intersection of biodiversity conservation and agriculture. It seems like invasive species are an enormous problem that's only getting bigger, and there's this potential technology.

Dr Marshall: In that case, we could probably have you come over to Black Mountain and see that just under the Telstra tower here in Canberra. We could host you.

Senator SHOEBRIDGE: That fits; it's in the ACT!

Senator DAVID POCOCK: Thanks very much.

CHAIR: Thank you, Senator Pocock. Senator Whish-Wilson, I'm hurrying towards a break.

Senator WHISH-WILSON: I understand I've got 10 minutes.

CHAIR: Yes.

Senator WHISH-WILSON: I'll be finished then. My last question is on monitoring in terms of the deep-sea mining project. Did CSIRO have input on or design the monitoring strategy?

Dr Mayfield: I'm not aware that we have had, Senator.

Senator WHISH-WILSON: So you're confident there are no flaws in it? It's all hunky dory?

Dr Mayfield: I'll take that on notice and work with the project team. I'm not that close to the actual work myself.

Senator WHISH-WILSON: I understand you're taking on notice whether you have any oversight or auditing functions around the operations such as the mining system.

Dr Mayfield: We have no involvement in that whatsoever.

Senator WHISH-WILSON: That's a concern. I'll perhaps put those questions to you on notice. You're probably aware of an article in the *Guardian* about a pollution spill that TMC covered up until some scientists released video footage of it, hence the media article. I understand that's the operations side of this contract, and that's outside the scope of your contract, but are you aware of it, and do you have concerns about that?

Dr Mayfield: I think the team would be aware of that. Obviously it's a concern of the regulator. You always want to make sure people comply with the appropriate standards. On a broad level, yes, you'd be concerned if there have been issues. You want them to be managed to the right environmental standard.

Senator WHISH-WILSON: I'm not actually sure who the regulator is in these international waters. But, yes, it's a valid point.

Dr Mayfield: I guess we're looking to try and inform the International Seabed Authority with the sort of insights we have.

Senator WHISH-WILSON: So we can actually potentially regulate this if it goes ahead. You're working on the monitoring and management plan. Once it's completed—I understand that's a date in 2024—who gets to see the finished plan or a draft plan? Is it the independent expert panel that's been set up for this, or does the TMC get to see it first?

Dr Mayfield: I think you're referring to the expert elicitation panel. They would get to see it. My understanding is that the work that we do here will all be available. Our intent would be to put the work up on our website as well so that it's public, and obviously TMC and ISA would see it.

Senator WHISH-WILSON: Who gets to see it first?

Dr Mayfield: I couldn't answer that.

Senator WHISH-WILSON: I'm glad you're making it publicly available, but who actually gets to see it first?

Dr Mayfield: I would expect that the expert panel would see that work first because it's part of the peer review process.

Senator WHISH-WILSON: Reading through the OPD, I did have some concerns about the kind of language that was used in meetings between TMC and CSIRO about selecting—the elicitation of the panel of experts. To quote some of the language, for example:

For expert elicitation—It should be made clear that there are experts in this space that are either workshop- and think-tank-fatigued at best or at worst, advocates for anti-mining positions.

And then they go on, in another document, document 30, to say:

... but as discussed in last two meetings, we may want to exclude some experts that may not align with our needs.

How much influence did TMC have over the elicitation expert panel?

Dr Mayfield: I'm aware of the comments that you refer to. The reality is: they had none. In terms of the process that was applied by our team, they looked at the science community relevant to that space. They looked at their scientific record and the literature, and they've actually selected that panel based on their scientific merit. We have purposely excluded taking into account other aspects so that we don't bias one way or the other. We are looking for people who've got the best science in that space. That's the way we've approached it. And that was a CSIRO-only decision to do it that way.

Senator WHISH-WILSON: Obviously, I have a lot of faith in the scientific process. So, once this has been released, will you commit to making public the reviews of the expert panel and any adjustments to the draft reports?

Dr Mayfield: My understanding is that the information that we provide as the end product will be freely available. I don't know about the interim steps, but I would expect it would be similar.

Senator WHISH-WILSON: Will you make public the interim and final consortium reports submitted to TMC?

Dr Mayfield: Yes, that's our intent.

Senator WHISH-WILSON: Would you consider broadening the membership of the panel so as to include civil-society-nominated scientists with appropriate expertise—or would they be the kind of people that TMC were saying they didn't want on the panel?

Dr Mayfield: I'd have to look at the specifics because we've obviously selected a panel based on their scientific merit as we see it, and, while we'd be open to including more, we'd just need to make sure we were using a consistent basis by which they were selected.

Senator WHISH-WILSON: I understand. So will the expert panel members be selected on the basis of support for deep-sea mining? And how will their input be 'carefully managed' as per page 1123 in the OPD?

Dr Mayfield: No, as per my previous answer, it's not about that. We're excluding any knowledge of their personal views or anything like that. We're looking purely at their scientific work—how it's cited and used by the community. So we're trying to do it on scientific merit only.

Senator WHISH-WILSON: Okay, but, there are scientists out there who have concerns. As you know, I understand, a large number of, 650, marine scientists and policy experts from 44 countries and 81 governments and 577 civil society members of the IUCN World Conservation Congress have already gone on the record about their concerns over this. Do you think it's fair to include those kinds of scientists in the final recommendation, given that this is going to be essentially used as a blueprint, potentially, in the future, for deep-sea mining in other places around the world?

Dr Mayfield: Based on the approach I outlined to you, you would expect there would be some of those particular individuals you refer to who would be part of that panel. There should be no bias.

Senator WHISH-WILSON: And what process would you go through for that—perhaps putting it out to tender?

Dr Mayfield: When I said—

Senator WHISH-WILSON: Would you put it out to tender, for example?

Dr Mayfield: No, no. CSIRO is looking—we've said before: we're looking at the scientific cohort and understanding their position in the scientific community, in terms of publications and citation record, and then we are trying to appoint on that basis. So that's the methodology that the team are applying. They're not looking at anything beyond that. So, in terms of membership of that group that you talked about, they won't be looking at that as a criterion or an understanding. So it shouldn't factor in it; it should really be about their scientific expertise.

Senator WHISH-WILSON: Thank you. My ten minutes is up, but I'll put more detailed questions to you on notice.

CHAIR: Senator Shoebridge?

Dr Marshall: I just want to give you the answer you asked for previously. I had it backwards. The chair informed me on 18 April.

Senator SHOEBRIDGE: Have you received legal advice about the matter?

Mr Munyard: That's what I was referring to before. We're working with the department with both our legal functions and seeking some legal advice in relation to the overpayment. We need to get to the bottom of this because, as I said, this is an historical overpayment. It's not recent. We need to understand exactly what happened in order for us to be able to go on the next steps in relation to recovery of the overpayment.

I do want to stress, which I didn't say before, that CSIRO's position is that we do recover debts when debts are raised. I want to make sure that that's on the record. We need to undertake to get legal advice to do that.

Senator SHOEBRIDGE: Is the overpayment related to the fact that while Mr Knox was receiving, I think, \$93,000 in remuneration last year in his capacity on the board of CSIRO, he was also receiving almost a quarter of a million dollars in his remuneration with Snowy Hydro, another public entity. Is that what the overpayments related to—double dipping on two boards?

Mr Munyard: I don't have the full knowledge of exactly what the overpayment was. My understanding is it relates to years prior, not in relation to those. It does relate to being employed in some other capacity and therefore not being eligible to be paid for CSIRO, but I'll have to take it on notice.

Senator SHOEBRIDGE: You can't receive two payments. You can't receive a board payment while you're getting another payment from the Commonwealth. That's the nub of the overpayment, is it?

Mr Munyard: That's my understanding, but I'll need to take the detail of that on notice.

Senator SHOEBRIDGE: Was it as a non-executive director of Snowy Hydro? Was that the second payment?

Mr Munyard: I don't believe so, but I'll have to take the detail of that on notice and get the legal advice to confirm exactly what the overpayment relates to.

Senator SHOEBRIDGE: Given Mr Knox's annual remuneration was \$93,000, how do you get a \$200,000 overpayment? Was it in relation to the entire remuneration paid over a number of years or was it an overpayment that went on year after year after year? What was it?

Mr Munyard: It was an overpayment over a number of years. My understanding, I'll have to take the exact details on notice, is it relates to a period around 2018-19-20.

Senator SHOEBRIDGE: Dr Marshall, have you put a recommendation to the board about recovery of the overpayment or do you accept Mr Munyard's position that it's a policy point that CSIRO will recover this as any other debt?

Dr Marshall: It is a policy position. Correct.

Senator SHOEBRIDGE: Why haven't you written to Mr Knox and ask for it to be repaid?

Mr Munyard: Mr Knox has been advised of the debt.

Senator SHOEBRIDGE: Why haven't you written to him and asked for him to repay it? That may save on a whole lot of lawyers. It just seems like the obvious path: 'Dear Mr Knox, sorry we paid you \$200,000 too much. It was in error. Give it back.' Why hasn't that happened?

Mr Munyard: We need to undertake this due diligence in order to confirm exactly the terms and the circumstances and then that is the appropriate time for us to advise Mr Knox. Mr Knox is aware that we are undertaking that due diligence and of course expects us to do that prior to seeking that recovery. I want to stress again, that CSIRO's position is that we do recover debts. We'll do that and we'll do that quickly in order to resolve this as quickly as possible.

Senator SHOEBRIDGE: Dr Marshall, for the reputation of CSIRO, for the reputation of Mr Knox, why not just ask for the money back? Why go through the rigmarole and pay for more lawyers? Why not just ask for the money? I can't understand.

Dr Marshall: We just want to be sure we understand the facts as to what happened. We want to be crystal clear and then we can resolve it.

Senator SHOEBRIDGE: You've had since 18 April to get the facts. I'm none the wiser from you, Dr Marshall, as the chief executive, about how the overpayment occurred or even what it relates to, and that's since 18 April.

Dr Marshall: We need to have the right information so we can resolve the issue. You've kind of got us in the middle of gathering the information, but rest assured we'll resolve it.

Senator SHOEBRIDGE: I've got you six weeks after I was notified.

CHAIR: Senator Shoebridge, repetitive questioning. You may not like the answer but you've been given an answer a number of times.

Senator SHOEBRIDGE: I don't like the result, Chair.

CHAIR: Can you move on to your next question?

Senator SHOEBRIDGE: I think that rounds it up. Sorry, one further thing. I think you said earlier you would table a certain document. Could I ask you to table any communication that you have had with Mr Knox about this and also table, in whatever form you have it, the communication that alerted you to the overpayment?

Dr Marshall: Certainly.

Senator SHOEBRIDGE: Of course, if you have any formal memorandum or advice in relation, could you provide that to the committee as well?

Dr Marshall: Certainly.

CHAIR: Dr Marshall, as noted as at the beginning of this session, this is your last appearance before budget estimates. I take the opportunity to thank you for the extensive contribution that you've made and I know the minister will want to echo those comments in a moment. I did also perhaps tempt fate by indicating that you would receive a broad and interesting spectrum of questions today. Indeed you have. As always, the committee really appreciates the attention and expertise that you have brought today to the questions and that you brought over time. I think it's really important that senators get to ask whatever their questions may be, because that gives the opportunity for science to be brought to the parliament. On behalf of the committee, we appreciate that. Again, thank you. I know the minister would like to make some remarks.

Senator Ayres: I think the questions this afternoon were broad and some of them were interesting. I too would like to place on record on behalf of the government our thanks for your work, Dr Marshall, and also your work in leadership of the CSIRO, which is such a foundational institution for Australia. So it's an opportunity to thank you and also to thank your colleagues for the vital work that they do on behalf of Australia and Australians and for the progress of global scientific research more broadly. I think that is reflected of some of the questions from senators, who are also deeply in this very important public good that the CSIRO represents. So best of luck with your future endeavours.

Dr Marshall: Thank you.

CHAIR: The committee will suspend until 5 pm and return with outcome 1, program 1.2.

Proceedings suspended from 16:42 to 17:11

CHAIR: The committee is done with outcome 1, program 1.1, and the Office of the Chief Scientist, and will move directly to outcome 1, program 1.3, Supporting a strong resources sector. Senator Whish-Wilson, you have the call.

Senator WHISH-WILSON: My questions relate to the announcement by the Albanese Labor government on 19 May 2023 that they have opened consultation on the proposed lease of offshore acreage to be utilised by commercial operators for carbon capture and storage. My first question to the department is: how many offshore carbon capture and storage facilities are currently operating internationally and how many are operating in Australia?

Ms Urquhart: We will need to take that one on notice.

Senator WHISH-WILSON: Okay. In particular, how many are commercially viable both internationally and in Australia? What benchmarks are the government using in the development of this policy? I suppose that's the

nub of what I would like to inquire into. Are you aware of any commercial carbon capture or offshore carbon capture facilities in Australia?

Ms Urquhart: I am aware of carbon capture going on at a facility at Barrow Island just by dint of having visited there. I am relatively new to the resources portfolio. As I said before, to give you a comprehensive answer to your question, both domestically and internationally, we would need to take it on notice. What might be relevant to your question is that you are seeking to establish the proven nature of carbon capture and storage, and what we do know is that carbon capture and storage currently sequesters 42 million tonnes of carbon dioxide globally on an annual basis. We also know that the IPCC, the IEA, the Climate Change Authority and other respected international bodies recognise that carbon capture and storage is considered to be critical to reaching net zero by 2050. By some estimates, up to eight billion tonnes of sequestration per annum will be needed by 2050. We know that certain global partners are showing a strong commitment to the technology. One example is the United States has provided over \$6.5 billion in funding for the technology under what's known as the bipartisan infrastructure bill. Australia obviously has significant geological storage capacity, estimated at up to 227 gigatonnes, according to CSIRO, and, we believe, the competitive advantages to become a potential global carbon capture and storage leader.

Senator WHISH-WILSON: Could you provide on notice the source of that figure of 42 million tonnes globally and what percentage of annual global emissions that relates to. With that 42 million tonnes, how many tonnes are we putting into the atmosphere every year? I would like to get an idea of how significant that is. As you say, we have to meet the target of eight billion by 2050 to achieve net zero. Forty-two million is a long way away from eight billion. I would be keen to know how significant that is at the moment.

Can you also take on notice how many carbon capture and storage projects are working at meeting their targets and are commercially viable for their costs both in Australia and elsewhere?

Ms Quinn: We're happy to take it on notice, but I'll just point out that some of that information would be from our compatriot department, the department of climate change. We are happy to take it on notice, but it might be that we have to talk to them and cross-refer because emission outcomes are measured by that department. We might not necessarily have the viability of projects either because what we are responsible for in this department is the regulatory standards and structures. Companies have to meet certain obligations, but they can do that while making a loss and so we might not necessarily know things. We are happy to take it on notice, but I just caution how fully we might be able to answer it.

Senator WHISH-WILSON: Thank you for that advice. I will perhaps put this question to NOPSEMA later, but can you just confirm they will be the regulator of this in Australia?

Ms Laucher: NOPSEMA are the environment and safety regulator offshore for CCS projects in Australia in Commonwealth waters.

Senator WHISH-WILSON: Thank you. I have a question about seismic testing, because clearly identifying sites for projects in the ocean is going to require some kind of exploratory process. I've chaired quite a long Senate inquiry into the impacts of seismic testing, so I'm very familiar with the potential risks of that. Can you confirm that identifying these areas—and I have the maps here in front of me—will require current seismic testing techniques or the seismic acquisitions or seismic surveys that are being used in the oil and gas industry at the moment?

Ms Urquhart: I'd want to take that one on notice too. I think exactly what would be required in particular instances is something that we would need to check. I suspect that it may well be the case that, in many of the apparently viable sites for carbon capture and storage, the sites themselves might already be suitable by dint of having undergone exploration for other purposes. So, if it's okay with you, we'll take it on notice.

Senator WHISH-WILSON: Yes, thank you, if you could. One of the recommendations that came out of the Senate inquiry into seismic testing was that new technologies be developed to reduce potential risks and harm to the marine environment. I understand the previous government adopted that, and FRDC is working on a research project. Could you also take on notice whether the regulator will require less harmful seismic testing to be used in the search for appropriate CCS sites?

Will offshore sites be able, in terms of regulation, to retrieve unmined or unutilised oil and gas in the process of pumping for carbon capture and storage? Will they themselves have, for example, a scope 1 footprint?

Ms Urquhart: Senator, I'm sorry. I don't think I fully understand your question.

Senator WHISH-WILSON: If you're selecting sites and you might be using, for example, a depleted or mature oilfield or gas field in the ocean, will the company, while it's potentially using CCS or pumping captured

carbon into those fields, also be able to extract any remnant oil and gas left over in those fields? To put it another way, will it be able to continue operating?

Ms Laucher: A greenhouse gas injection and storage licence allows for the injection of greenhouse gas substances. It doesn't allow for petroleum production, so that would have to come under an application for an existing petroleum production licence and be assessed as permits currently are under that regime.

Senator WHISH-WILSON: It makes sense to me that if you're going to develop, for example, a new oil and gas field off King Island, where ConocoPhillips are looking for the next big bonanza of fossil fuels, perhaps you would wait till you develop the project and then pump the carbon into an area that you've predetermined. Is that the plan? Is that why we're going down this road?

Ms Laucher: Sorry, Senator. Can I just clarify your question: are you asking if it's possible that they will use an existing depleted oilfield for the purposes of then storing CO2 in that same depleted field?

Senator WHISH-WILSON: No, sorry. The first question was about depleted fields. My next question is about greenfields projects that may be commercialised. Is this designed to set up a CCS process around the development of new oil and gas fields?

Ms Laucher: There's an existing regulatory regime in place under the Offshore Petroleum and Greenhouse Gas Storage Act—it's been in place for quite some time, for a number of years—that from a legislative standpoint would allow both greenfield and use of depleted fields. An acreage release process would be a matter for government as to what areas are released, and that would depend on a number of factors following public consultation.

Senator WHISH-WILSON: Would it be fair to say that any fossil fuel company that is currently operating in the ocean or exploring for new oil and gas would want a CCS site in close proximity to a production site? Otherwise it would be very expensive to transport that, and potentially dangerous to transport carbon gas condensate, for example. How does it work?

Ms Quinn: Can I add that there was a measure in the budget where the department was provided funding to undertake a review of the environmental management regime of offshore petroleum and greenhouse gas storage activity to ensure it's—

Senator WHISH-WILSON: That was \$12 million over three years?

Ms Quinn: That's right. It's to look at the regulatory regime to ensure it's fit for purpose for a decarbonising economy. You're raising issues about the existing regime and the interlinkages between the extraction licences, to use a colloquial term, and the storage licences. You're correct that, when companies talk about a greenfield site, they need to take into account the safeguards mechanism and the environmental standards obligations on them. The industry is thinking about how they engage with the new regulations. This review we've been tasked with is about looking at the connections between the offshore regulatory regime in the context of the safeguards mechanisms and the obligations on companies under the government's policies.

Senator WHISH-WILSON: Thank you. That was actually going to be one of my other questions around the safeguard mechanism. So it's not necessarily a formal precondition that, if you're going to develop a greenfield site or even further deplete brownfield sites, you must have a CCS site nearby that can offset your carbon emissions, but you are developing this in parallel with a future of more oil and gas development in the oceans.

Ms Quinn: The safeguard mechanism does require companies to have a plan for reducing their emissions, and so they clearly are all thinking about how to do that in the most cost-effective way consistent with their environmental obligations, as well. There are clearly developments on this both in Australia and overseas, and this will be covered in the review, which will include taking submissions and the like from stakeholders.

Ms Urquhart: If I can add to Ms Quinn's answer, in respect of the current regime and the regulation of that in respect of the sort of environmental considerations that you're asking about, if you were to put these questions to NOPSEMA later this evening you would likely find that they were better equipped to give you some more real-time sense of how these things are brought into consideration.

Senator WHISH-WILSON: Okay, yes. One question on that: on 16 May Minister Madeleine King said at the APPEA conference in Adelaide that government has a role in supporting industry investment in CCS by reducing risk, to use her words. What are the risks? What is the department aware of as the risks arising from CCS?

Ms Quinn: My understanding is that that is first and foremost a reference to the regulatory risk, clarifying what the regulatory regime is around obligations and things like that. I haven't seen the exact quote, but there is often the connection to the review in terms of providing more certainty about what the regulatory standards are, consistent with the changes that have occurred through safeguards and others. So there's regulatory risk, which is

what the government has within its purview to do the judgements around regulation. Clearly, there are all sorts of environmental risks, engineering risks and financial risks that projects have to manage, as well. Many of those are outside the government's obligations to consider.

Senator WHISH-WILSON: There is an interesting discussion about risks: political risks, climate risks, reputational risks. At what point will CCS be established as a 100 per cent bona fide technology to reduce emissions and get these projects to net zero?

Ms Quinn: You're certainly asking the wrong person to give that answer.

Senator WHISH-WILSON: But how are you going to assess that as a department? I'll rephrase that: how will the department assess it? You've got \$12 million over three years. At the end of those three years, will you be in a position, from a regulatory point of view, to say, 'Yes, you can proceed with this project because under the safeguard we're comfortable that you'll meet your scope 1 emissions, because this works.'

Ms Quinn: Stepping back, the review that we're doing is around the environmental management regime, which is the obligation of this department. That clearly has to nest with the environmental obligations and the emission-reduction obligations. There's a three-legged stool that comes together in terms of the regulation. We're focused on the environmental component of the offshore petroleum and greenhouse gas storage. Your question goes to political and social acceptance, scientific acceptance et cetera. There are other experts in the field who can provide those answers. Carbon capture and storage is being used in other parts of the world with different regulatory regimes, and, as you know, some things are transferable and some things are not.

Senator WHISH-WILSON: So you're not in a position to tell me about that tonight?

Ms Quinn: Not in great detail. I'm happy to take it on notice. I'm aware that off the shore of Scotland, for example, it's being used. I'm happy to take it on notice, because I'm sure the department officials—they aren't here at the moment—would be able to provide answers.

Ms Urquhart: Senator—

Senator WHISH-WILSON: Sorry?

CHAIR: I believe Ms Urquhart wanted to add to the answer, but I do need to share the call after that. We can always come back to you. Ms Urquhart?

Ms Urquhart: Just building on Ms Quinn's answer, our role is very firmly in the regulatory space. Carbon capture and storage policy does sit with the climate portfolio. The questions do bring together the use of the technology and its effectiveness in decarbonisation. I would suggest those questions are best put to the Department of Climate Change, Energy, the Environment and Water.

Senator WHISH-WILSON: Thank you for that.

CHAIR: Senator McDonald.

Senator McDONALD: Good evening, Ms Urquhart. I started these questions in Corporate Group and was directed to speak to you. I want to confirm that no acreage has been released since the 2022 offshore petroleum exploration acreage release, as outlined in the answer question on notice SI-10.

Ms Urquhart: Thank you for the question. You and I discussed acreage releases and those processes, I think, at the previous estimates. I can run you through the status year by year, if you like, of each of the acreage release processes.

Senator McDONALD: That would be terrific. Thank you.

Ms Urquhart: In 2021 we had an acreage release which included 21 areas. The bidding closed for that on 3 March 2022, resulting in 10 bids over nine areas. In turn, those bids were assessed by the National Offshore Petroleum Titles Administrator, and the bids are now with the joint authority for decision. For the 2022 offshore petroleum exploration acreage release, 10 areas were again released for bidding, and all were in proximity to established petroleum provinces and infrastructure. I can run you through, by the way, the different areas covered in both of these releases. The bidding for 2022 closed on 3 March 2023, resulting in three bids over three areas. Again, it was assessed by the National Offshore Petroleum Titles Administrator, and the bids are now with the joint authority for decision. In terms of future acreage releases, nominations for the next offshore petroleum exploration acreage release closed on 1 September last year. Public consultation and bidding days are yet to be finalised. I think I've covered off the live processes.

Senator McDONALD: So the 2023 consultation was 1 September 2022.

Ms Urquhart: No, nominations closed on 1 September. Public consultation and bidding dates are yet to be finalised.

Senator McDONALD: When do you expect that that might happen?

Ms Urquhart: Is that a decision for—

Ms Laucher: That would be a decision for government.

Senator McDONALD: I was just expecting that that would be a rolling process, like there has been for the last few years. So was that always a decision of the government? Is it timing or the amount that is the decision of government? What is the decision of government?

Ms Urquhart: It would be usual for us to consult with the minister on the timing of public consultation.

Senator McDONALD: So that was last September. It's now June—

Ms Urquhart: So the nominations closed on 1 September.

Senator McDONALD: So it's the public consultation that you're waiting to have. Otherwise, we would be hoping that there would be 2024 acreage release nominations by this September. So do you think I am being optimistic to think that you will have time to do a 2024 release this year?

Ms Urquhart: Again, I think that would be a matter for government.

Senator McDONALD: Question on notice S1-10 was to determine how much acreage was released that could support the domestic market, specifically the east coast domestic market. So I just want to confirm: only one area was released in the Gippsland Basin, with no releases in the Otway, and nine additional areas were released offshore in Western Australia and other areas, which are currently unable to supply the east coast. Is that correct?

Ms Urquhart: Can I just confirm the number of that question on notice? It was S1—

Senator McDONALD: Ten. Sorry, it was SI-10.

Ms Urquhart: I'm sorry to trouble you, but would you mind repeating your question?

Senator McDONALD: Where I'm trying to get to is: what acreage releases have been made that will be able to support the domestic market? It was my understanding that one area was released in the Gippsland Basin, that there were no releases in the Otway and that the nine other releases were offshore WA but were unable to supply the east coast. I just want to confirm that that assumption was correct.

Ms Urquhart: As we answered in that question, in the 2021 release, six areas were released in the Otway Basin, offshore Victoria and Tasmania. In addition, two areas were released in the Gippsland Basin, offshore Victoria, and one area was released in the Sorell Basin, offshore Tasmania, that could potentially supply gas to the east coast market should exploration be successful in establishing that there are commercial volumes of gas to be exploited. The remaining 12 areas released in 2021 were offshore Western Australia and the Territory of Ashmore and Cartier Islands. In relation to 2022's release, no areas were released in the Otway Basin as part of that release, but one area was released in the Gippsland Basin, offshore Victoria, with potential to supply the east coast market should exploration be successful. The remaining nine areas released in 2022 were offshore Western Australia and the Territory of Ashmore and Cartier Islands.

Senator McDONALD: That's what I was referring to—not the 2021 but the 2022 releases. So Gippsland received a bid, and that has been released to the explorer.

Ms Urquhart: No. I'll go back to my previous answer about the 2022 acreage release. The process followed nomination, consultation and, I think, assessment via the National Offshore Petroleum Titles Administrator, and now the bids are with the joint authority for decision.

Senator McDONALD: I appreciate what you're saying now. So the only acreage that would potentially be able to provide gas to the domestic market should the exploration be successful and be brought to production have not yet got to consultation, and there is only one in the Gippsland Basin?

Ms Urquhart: In relation specifically to the 2022 acreage release?

Senator McDONALD: Yes, specifically 2022.

Ms Urquhart: It's the same for 2021, but for years previously there may well be areas that we haven't identified in the answer that are relevant to the east coast.

Senator McDONALD: What I'm interested in is what acreage is going to be made available for domestic supply for the east coast given that we have got the infrastructure challenges that we discussed at length during the last estimates. Please take it on notice. If there are other acreages that have been released that would be suitable for that that you have not previously identified for me, please let me know. But what I am trying to chase up is what acreage is going to be able to supply to the domestic market.

Ms Quinn: We will be able to provide that because it's clear, through the major projects tracking, that there are projects on previous acreage that are in some stage of development for providing gas to the east coast.

Senator McDONALD: Thank you.

Ms Urquhart: We have some information that may be useful to you in that regard.

Ms Laucher: There are 12 active petroleum exploration permits in offshore Victoria. They're areas that have already been through the acreage process and have been awarded permits. Seven of those exploration permits are in the Gippsland Basin, and I have five in the Otway.

Senator McDONALD: Do you know what years they were released?

Ms Laucher: I don't know what years they were released. I do have a list of them and the holders, but I'm not sure what year each of those were awarded. I'd have to take that on notice.

Senator McDONALD: That would be terrific. I'm just trying to understand what is in the pipeline to move towards supply. We have had quite a bit of evidence over the last couple of days about supply concerns from different agencies. That's what I'm trying to understand. So nothing has yet been released by this government. The first of September was the nomination date. That's eight months ago. Supply is a pressing issue, and we haven't had any movement on that. If you could provide, on notice, those active offshore exploration permits and the dates they were released on, I would appreciate it—and thank you, Ms Quinn, further to your comments, what also would fall under the major project status. Secretary, does the \$4.5 million set towards developing a road map to grow an offshore petroleum decommissioning industry mean that the department expects to release less acreage each year as they phase out offshore gas?

Ms Quinn: I think they're not tied together. The issue on the decommissioning side is that there are a large number of projects that are coming to end of life that have been in place for decades in some cases, and there is a question around ensuring that we have appropriate regulatory structures and awareness of the opportunities for the decommissioning industry. There's quite a lot of work entailed in returning sites to their natural stance, which is required by environmental regulations, but also ensuring there's an understanding about what skills and regulatory regimes are required. So this is an opportunity for us to look at the current arrangements, at the decommissioning industry and at the opportunities for jobs and to have a discussion about what things the government or industry might want to do to take the opportunity of this decommissioning. I will just pause and let my team add anything.

Ms Urquhart: Senator, just to be really clear, I think you referred to the \$4.5 million measure.

Senator McDONALD: Yes.

Ms Urquhart: I think that's the one related to the Powering Australia fund.

Ms Quinn: No, it's the decommissioning.

Ms Urquhart: Oh, it's the road map for decommissioning, is it?

Senator McDONALD: Would you like to outline some more details about that?

Ms Laucher: Certainly. The oil and gas industry has been in place for a number of years and, as you know, it's a maturing industry, so naturally we have decommissioning that occurs as part of the natural life cycle of a project. We are expecting around \$60 billion just in the Australian area in decommissioning in the next 30 to 50 years. So the road map's looking at identifying the economic and social benefits and challenges for Australia from those decommissioning activities; determining the capabilities, the skills, the infrastructure and the supply chains that are required in order to meet projected decommissioning industry demand; determining how we can attract investment, create jobs, reskill existing workers, manage waste and help to build a circular economy; and including recommendations on what action may be needed to support a viable decommissioning industry in Australia. So it's about harnessing the benefits from the existing decommissioning in a normal life cycle.

Senator McDONALD: Is one of the things you're considering the very active sea life that's grown up around some of this infrastructure that's been in place for a long time?

Ms Laucher: That's separate from the road map that's being looked at. The road map is about identifying what opportunities Australia may have and where it has a competitive advantage where government intervention may apply. What you're talking about goes to potential re-use of property and leaving it in situ. That's regulated under the Offshore Petroleum and Greenhouse Gas Storage Act for decommissioning. The standard benchmark under that is complete removal. However, title holders can apply to NOPSEMA, as part of that decommissioning activity, to leave property in situ where they can show equal or greater environmental benefits. Where you're talking about existing reef and there would be damage to the environment as a result, on the evidence of that they can make an application to NOPSEMA, and, depending on that demonstration of equal or greater environmental benefits, NOPSEMA would assess it against that.

Senator McDONALD: Or new reef and new activity as a basis, because there's a solid structure for plants and animals to focus around, as opposed to where there's not reef but sand basins.

Ms Laucher: Yes. Re-use isn't excluded, but the base case is complete removal, so it's got to be equal or better environmental benefit.

Senator McDONALD: If decommissioning is going to become an industry, I would have thought that that would be a part of it, because that's a skill set and an outcome that will potentially grow fishing and tourism in that area.

Ms Laucher: Yes, there is consideration of that, but it's got to be on a case-by-case basis, and there are other regulatory regimes in place, such as sea dumping, that need to be considered.

Senator McDONALD: I'm just interested. I'm kicking it around with you.

Senator Ayres: It is interesting, but the focus of this work is really the employment and industry opportunities that there are for Australia in an activity that is going to be billions and billions of dollars worth and that we ought to try to capture onshore.

Senator McDONALD: That's exactly what I was trying to get to. We've talked a lot about the decommissioning, but, Minister, is it this government's policy for Australia to continue with these acreage releases and to produce more offshore gas?

Senator Ayres: Yes. Future acreage considerations will be developed. There are multiple authorities engaged in this work. The decommissioning activity is entirely independent of the new acreage release. These are projects that are coming to the end of their natural life—actually, that is the wrong expression, I think—the end of their productive life. Just the same as the construction cost, the industry bears the cost for safe decommissioning. We have gone into quite some detail about that, but we are determined to capture the value of that work onshore. In terms of future acreage releases, they will be considered in a normal way.

Senator McDONALD: Secretary, turning now to strategic basin plans—

CHAIR: Senator McDonald, the call will come back to you later, and we will go to Senator Cox.

Senator COX: Ms Urquhart, I'll start with a budget measure in relation to working with the Australian resources industry on the pathway to net zero. My question is about one of the measures included in that, which includes the Queensland government to support technology projects to reduce emissions and enhance energy security. Are you able to elaborate on what those technologies are that are being invested in under this measure?

Ms Urquhart: I might ask one of my other colleagues to join me. The measure you are referring to is supporting emissions reduction in Queensland's energy resources sector, and the measure involves establishing a new partnership with the Queensland government to support technology projects that reduce emissions and enhance energy security. The funding is \$14.3 million, and my colleague Mr Lawrence can hopefully enlighten us on some of the technology options that we anticipate exploring.

Mr Lawrence: Under the measure we will work with the Queensland energy and resources sector and the Queensland government to look at ways of enhancing energy security. The measure will fund R&D projects of relevant technologies that are nascent, emerging or generally low on the technology readiness scale, so specific technologies at this stage probably aren't known. We do know that CSIRO and several universities are doing work in the space, but the actual technologies are at their very nascent stage.

Senator COX: Can you confirm whether this will include any carbon capture and storage project figure?

Mr Lawrence: I don't think I can confirm any technologies at this stage. This would be looking at a range of technologies that can reduce emissions, whether that be through reduce flaring, deploying renewables at well sites instead of using them for gas production or general electrification, plus anything else that can reduce emissions.

Senator COX: We note that Minister Husic has been one of the biggest critics in relation to this, and rightly so, in that CCS is not proven to work at the scale that it is needed.

Mr Lawrence: I am not going to comment on what Minister Husic has said.

Senator COX: But we aren't ruling it out at this stage. Is that right?

Mr Lawrence: I think we need to look at all technologies to reduce emissions, and bodies like CSIRO, the IEA and others have been very clear on that.

Senator COX: Another measure that I want to ask some questions about follows on from Senator Whish-Wilson's comments around the environmental management regime for offshore petroleum and greenhouse gas storage activity that ensures it is fit for purpose for a decarbonising economy. Ms Urquhart or Mr Lawrence, I believe you said that NOPSEMA may have been the right place to refer those questions.

Ms Quinn: It is appropriate to ask about the measure here. NOPSEMA is the regulator of the current arrangements. We have been tasked with the review of the regime thinking about making it fit for purpose going forward, so that is the policy work of the department.

Senator COX: Excellent; okay. I just want to note there was a report in the *AFR* yesterday that said the strategy is underway; is that correct?

Ms Quinn: It's in the early stages of being underway, absolutely. It was a measure in the May budget. The team are working through the project plans and staffing arrangements around that. It's in the early stages but it is underway, but it hasn't reached a stage of public consultation or anything like that yet.

Senator COX: Is the review being conducted internally? Is it being done by the department, just to clarify?

Ms Quinn: It is being done by the department. As part of that project plan, we will look at how to ensure we've got access to appropriate experts and things like that. That's part of the planning stage the team are at now.

Senator COX: Have you identified who will take part in the review at this stage?

Ms Quinn: Not explicitly, other than there will be a consultation process. The scope of work in concept was to make sure there was a broad consultation process, very specifically tasked with consultation with First Nations Australians.

Senator COX: How is the government planning on consulting First Nations people from across the country about what different communities may see as being genuine consultation, and is there a time frame for this?

Ms Quinn: As I said, we're still in the early stages of planning. We will take advice from our colleagues in the NIAA but also look at best practice as we do our planning process. We are very open to receiving feedback on that. There are obligations and best practice guides for the Public Service in terms of doing work with First Nations people and other stakeholders, and we'll draw on that as we go through the project plan.

Senator COX: Was there a time frame for this review? Sorry, I might have missed that.

Ms Quinn: We have been funded to do the review over three years, but there will be a phase to that; that's one of the things we are working through.

Senator COX: As part of the project plan, are there any expected outcomes of this review that you can talk about?

Ms Quinn: As I mentioned previously, it is the case that the safeguards mechanism has placed obligations on the gas industry. We've also got a review of environmental regulation. We've had court cases around various aspects of the offshore regulatory regime. It's timely for us, in supporting the government, to look at the arrangements. It's necessary to ensure we have an appropriate regulatory regime in the face of those changes—greenhouse gas, environmental standards and legal cases—including consultation with First Nations people. They're three areas we'll be covering explicitly in the review but clearly there may be other things that stakeholders want to put on the table, and we can consider that as part of the process.

Senator COX: Thank you. The government has also set aside \$141 million over 10 years for carbon capture and storage in the October budget. Is this money only available for industrial uses, like capturing emissions for cement and steelwork or steelmaking projects, or is it also available for coal and gas projects?

Ms Urquhart: You would need to direct that question to the Department of Climate Change, Energy, the Environment and Water.

Senator COX: Will do; thank you. Finally, the budget includes \$6.7 million to deliver the future gas strategy. There was very little detail in the budget papers about precisely what this was for. I know that Minister King has been quoted as saying, 'The purpose of this is to educate the eastern states on the importance of gas.' Is this money for a public advertising campaign?

Ms Urquhart: I wouldn't characterise it as an advertising campaign. In fact this budget measure is really welcomed by the department. We think it is absolutely essential that we have the opportunity to examine the trajectory between now and net zero, and understand the role of gas in that trajectory not just for Australia domestically but also for key partners who, to a considerable degree, are reliant on gas supply but have their own trajectories they have developed and continue to evolve on their own progress towards net zero.

The idea with the gas strategy is it is all about supporting the energy system to reach the 82 per cent renewable target by 2030 and become cleaner, cheaper and more reliable whilst retaining our international reputation as a trusted supplier. Key to that is to pin down some facts around the role of gas in its supply and in energy supply, as we progress down that trajectory. We envisage that the strategy work will create a framework, balancing security, affordability and decarbonisation for the oil and gas sector, and we have a particular objective of ensuring that

Australia remains a reliable and trusted supplier of LNG while keeping gas affordable domestically. We anticipate working in very close partnership with states and territories, industry, communities—the full gamut of stakeholders, as you would expect. We consider this work is complementary to the environmental management regime work we were talking about before as well as additional work we're doing to support the establishment of an offshore renewable energy sector in support of the Department of Climate Change, Energy, the Environment and Water, funded through the Powering the Regions Fund.

Senator COX: Just to clarify, on the \$6.7 million: in that same article I just quoted Minister King from, we've got the Japanese government being very forthright in pressuring our government on its gas policy. We've had a lot of accusations thrown around on turning off the gas in many of our states during the winter period. We've got a lot of public campaigning going on, particularly by Minister King, saying that gas plays such a pivotal role in the net zero world but also that this is about Australia's commitments to its LNG exports. I just want to clarify: is this more about achieving this objective of what the money is about—looking at the transition to 82 per cent renewable energy—with the involvement of the climate change minister? With the safeguard mechanism and all the work we've done in the Australian Greens to help this along, are we still talking about a public campaign with \$6.7 million where the minister is still running around worrying about what the gas cartels of this country think?

Ms Urquhart: The \$6.7 million is not to fund an advertising campaign; it is to fund work on building the facts around gas supply and the facts around the need for gas in different parts of the domestic economy, and also understanding our international partners and their own trajectories to net zero and the role gas will play in their economies in order to inform a strategy for government as we progress towards net zero.

CHAIR: Senator Cox, I need to share the call. I may be able to come back to you later on.

Senator COX: That'd be great, because I've got a few more questions.

Senator McDONALD: Secretary, \$251,000 was spent on the strategic basin plans item in 2022-23 with no further spending allocated. What was that \$251,000 used for?

Ms Quinn: I would have to defer to my colleagues on that level of detail.

Mr Lawrence: Under the strategic basin program there were a number of initiatives. Are you referring to a specific program under that?

Senator McDONALD: It was Budget Paper No. 2, page 170.

Ms Quinn: Page 170 talks about the strategic basin plans only in the sense of being taken as a saving. To the extent there was any expenditure, it would have been in winding up the program. We can take it on notice if you'd like.

Senator McDONALD: Sorry, no. Can we go to the PBS for DISR, page 40.

Ms Quinn: I'll just check if my colleague has additional information. I believe last time we talked about this, about the winding up of the program, that there would be some funding that was pre-committed and would be finalised. I think it would be in the nature of that spending, but I'll just check. Mr Lawrence, do you have anything to add?

Mr Lawrence: I think I'd have to take that specifically on notice because there were a number of initiatives under the strategic basin plan, and 251,000—I don't have it with me at the moment.

Senator McDONALD: That's fine. If you could take that on notice, please. Budget Paper No. 2, page 170, outlines the \$6.7 million allocated for the future gas strategy will be covered by redirected funds from cutting the strategic basin plans. Will the \$6.7 million completely offset the full amount being cut from the strategic basin plans?

Mr Lawrence: The strategic basin plans money was used to offset a number of initiatives across the budget, including the future gas strategy.

Senator McDONALD: Can you identify where the additional money cut from the strategic basin plans is being allocated? Is it being used as savings or is it completely redirected to other programs?

Ms Urquhart: The savings were completely redirected to other measures in the resources portfolio.

Senator McDONALD: Could you provide me with that list of programs that the funds were redirected to, please.

Ms Urquhart: We can run you through the list of budget measures for the resources portfolio.

Senator McDONALD: No. I'm trying to match the cut of funding from the strategic basin plans. If we go through the entire program of the—well, I'm hoping there will be extensive programs in resources. But, you understand, I'm trying to match money that was cut from the strategic basin plans against what it went to.

Ms Quinn: Just to be clear, that's not necessarily possible because when we do a package of measures, there are multiple saves and multiple spends. There's not a one-for-one correspondence between items. The requirement in the budget process was to ensure that there were saves brought forward for spending, and the strategic basin plan was brought forward. It was used for a multitude of other programs, but there's not necessarily one-for-one matching. The future gas strategy was identified explicitly, but there were other items that it funded.

Senator McDONALD: I guess that's what I'm interested in, the future gas strategy. What other specific programs were there in the budget that were set towards developing gas supply, as was the intention of the previous strategic basin plans funding.

Mr Lawrence: As we've discussed, the funding was redirected to the future gas strategy. It was also redirected to the planning for a decommissioning industry. My understanding is that it was also to support some of the critical minerals budget measures.

Senator McDONALD: So no others towards developing gas supply?

Mr Lawrence: Supporting emissions reduction in the Queensland resources sector was offset by money from the gas wells trial program, which was a part of the North Bowen and Galilee Strategic Basin Plan.

Senator McDONALD: Right. But that wasn't about additional gas supply, was it? That was about reducing emissions.

Mr Lawrence: The new money is about reducing emissions.

Senator McDONALD: Okay. So we don't actually have any more money towards developing gas supply.

Ms Quinn: The regulatory regime work we talked about earlier, in terms of offshore environmental regulations, is clearly aimed at ensuring there's certainty in that regulatory regime to support the transition to net zero. That is something that stakeholders have asked for work on, and it would help them in their planning for future offshore gas processes. It's a review of the regulations, but that has been asked for by stakeholders—for the gas exploration.

Senator McDONALD: Certainly—I've heard that too. Given the strategic basin plans were onshore, there was potentially greater access and greater availability for domestic supply, given that they were on the east coast—we're going to consider the Beetaloo on the east coast. But I think that's where we're at, isn't it? There isn't actually money towards developing gas supply. I'm happy for you to correct me.

Ms Quinn: It's true that the government has taken a saving for the future gas strategy and others. We have taken on notice the gas supply projects that are currently in the pipeline, and in that answer we'll obviously clearly articulate the projects that are coming through the system, of which there are a significant number.

Senator McDONALD: When did you take that on notice? Which one was that?

Ms Quinn: When you were talking earlier about the offshore acreage and what projects were coming onshore et cetera. We have our *Resources and major energy projects* report that goes through all the projects coming through the system.

Senator McDONALD: Sure. Secretary, there was \$30 million allocated to the Beetaloo Basin drilling program under the 2022 October budget. That's October 2022, DISR PBS, page 41. But \$21.493 million has been spent, according to page 40 of the 2023 DISR PBS. Can you provide for how this money was spent, please?

Mr Lawrence: The Beetaloo Cooperative Drilling Program was a \$50 million program, with \$20 million allocated in 2021-22 and, as you noted, \$30 million allocated for 2022-23. Of that, the program ceased to new applicants on 30 June 2022. The grants that were in place were for \$26.9 million, and there was \$23.1 million uncommitted.

Senator McDONALD: Is that because the program was undersubscribed, or was it that cut-off date that meant you didn't fully expend the fund?

Mr Lawrence: At the time, the program was undersubscribed.

Senator McDONALD: How many grants have been provided by the government since 21 May 2022?

Mr Lawrence: No new grants. As I said, it closed on 30 June 2022. There were no active grants under consideration at that time.

Senator McDONALD: Right. And when was the last grant round offered?

Mr Lawrence: My understanding is that there weren't rounds per se. Firms applied to the program.

Senator McDONALD: Where was this shortfall in funding redirected to?

Mr Lawrence: Again, the portion of \$8.5 million of uncommitted funding was repurposed to offset new measures in the budget.

Senator McDONALD: Were any of those new measures new gas supply?

Mr Lawrence: As we said, those were to fund the future gas strategy, the work on decommissioning and some of the critical minerals programs.

Senator McDONALD: So that was mixed up with the money from the basins.

Mr Lawrence: The full save was \$21.4 million dollars that was redirected to new initiatives.

Senator McDONALD: The new initiatives that you spoke about before—the offshore acreage releases—that's companies funding new projects. Are there any single government funding lines that specifically develop new supply currently?

Ms Quinn: We have work on the regulatory regimes, and we have work on understanding the dimensions of the supply and demand needs going forward. That's where the measures in this budget are directed.

Senator McDONALD: Okay. I'm just trying to be really clear, given the number of conversations over the last week about supply, particularly domestic supply, so I hear you. Regulatory certainty under NOPSEMA, but new supply, exploration, incentives—

Ms Quinn: There is currently work still underway in Geoscience in terms of exploration work. It is also the case that the industry has received record profits in recent times, so in terms of the role for government in supporting—

Senator McDONALD: You're not going to suggest war profiteering, are you?

Ms Quinn: No. I'm just suggesting that the role for government in terms of funding profitable industries is a matter for judgement. Grant funding typically goes to supporting industries, as we mentioned before in the industry grant program, where there's a public need for funding. It is the case that there are quite a large number of projects in gas, on shore and off shore, that are in train. The government has directed us to work on regulatory areas, and that's the funding in this budget.

Senator McDONALD: So you're not supporting additional supply or investment in this industry, because you think industry should be doing that.

Ms Quinn: That's not what I said. What I said is that we've been funded in this budget to do work on the regulatory structures, and I was observing that the private enterprises that are operating in this space have recorded record profits in recent times.

Senator McDONALD: Was the Northern Territory government notified prior to the budget that funding for the Beetaloo basin would be cut?

Mr Lawrence: As I said, the program had already closed on 30 June 2022 and was not open to future applicants, and that was well known to all applicants and the Northern Territory government.

Senator McDONALD: Was the Northern Territory government specifically consulted on that decision to close that program?

Mr Lawrence: That was always the closing date of the program. There were no changes to the closing date of the program.

Senator McDONALD: Minister, as the Labor Northern Territory government supports the development of the Beetaloo basin, does your government support the basin proceeding to production?

Senator Ayres: As the official has just indicated, the funding ceased at that point. In terms of the program being available, there was no change in terms of when that closed. It was undersubscribed, and that would have come as a surprise to nobody.

Senator McDONALD: I'm sorry; my question was: does your government support the basin proceeding to production?

Senator Ayres: We support gas projects that stack up in terms of their regulatory compliance. Gas has a really important role to play. You've just gone through some of the re-profiling of spending within the resources portfolio. There are a series of measures there where it was the assessment of the government that they either were underperforming or had reached their conclusion. That money has been reallocated. The future gas strategy is actually a pretty important piece of work for the country to try and make sure that we're using an evidence base in a publicly accessible way to map out the role that gas is going to play in the net zero achievement and also the broader policy objectives that I won't go through but which go to the relationship with our partners, who also rely upon gas for all of the purposes that we've discussed in previous estimates.

Senator McDONALD: Terrific. Do you commit to the Beetaloo proceeding under your government?

Senator Ayres: There's no change in the government's approach on Beetaloo. It's a project that is really a matter for the Territory.

Senator McDONALD: Right. So you support the Northern Territory government's decision to invest in the Beetaloo?

Senator Ayres: It is absolutely a matter for the Territory. The project, like all of these projects, has got to balance up in terms of the regulatory environment and in terms of the economics, and the Territory government is going through that process.

Senator McDONALD: Alright. The program, under the federal government, to support development of the Beetaloo has come to an end. Is there any plan to have additional programs to support gas basin developments like Beetaloo?

Senator Ayres: We see the responsibility of government here as being to get the regulatory settings right, which is why the work that has been described to you earlier in estimates has been undertaken—the gas strategy and the reviews of the regulatory framework. It is not the government's view that drilling programs, for example, ought to be funded by the Commonwealth government. It's private industry that is doing this work, and we are carefully assessing the role of public money in all of the projects that we engage with, including the gas industry projects.

CHAIR: Senator McDonald, I've got three senators on my list. Have you concluded your Beetaloo questions?

Senator McDONALD: No, I have just one more. It's been more than a year of this government. Your budget has been propped up by coal and gas taxes and royalties, and you have absolutely no plan to ensure this prosperity that the industry has dropped into your lap isn't just a one-off sugar hit leaving our children poorer as you refuse to develop supply and invest in their future. Minister, can you explain why this government is being so negligent?

Senator Ayres: I'll just leave your social media video to run its own course.

Senator McDONALD: Boom-tish, Minister. It's about answering questions not about being a smart Alec.

Senator Ayres: It's not about—you gave a speech.

Senator McDONALD: I am very concerned.

Senator Ayres: Sure. The government's position has been very clear. The future gas strategy actually is a pretty good example of the kind of approach we are bringing to this. Getting the settings right and making sure that we have gas supply, particularly for industries on the east coast, is critical—utterly critical. We can't get to net zero without getting those settings right. Ensuring that we are supplying gas to our international partners as they go through their own processes is critical as well. The government is committed not to sloganeering but to doing the quiet, effective work that is required to make sure that we have low-priced energy, that we meet our emissions targets and that we have a safe, secure and reliable gas supply for consumers and industry as Australia goes through its own net-zero process. And gas is important for that.

Senator McDONALD: Chair, that's the end of my slot.

CHAIR: Thank you, Senator McDonald. Senator Pocock.

Senator BARBARA POCKOCK: I hope I'm not asking questions that someone else has. I haven't been in here the whole time this afternoon, but I have a question for you, Ms Quinn: does the department hold any contracts with PwC at present?

Ms Quinn: We did answer this question, but I'm happy to give you a summary. We do currently have five contracts with PwC. Most of those are coming to the end of life. We went through a little bit earlier about how we have sought assurances from PwC since the revelations in the Senate that the people working on those contracts are not part of the set of people that might have been caught up in processes around the tax confidentiality issues. I'm happy to take further questions. We are very concerned about the revelations and we're engaging with PwC on the contracts that we currently have on foot with them.

Senator BARBARA POCKOCK: Are you in agreement with the Governor of the Reserve Bank, who has decided to not do business with them until he has confidence in their procedures?

Ms Quinn: We operate under procurement arrangements, where we go through panels and have procurement arrangements. All of our contracts with PwC went through a procurement panel arrangement and tender arrangements et cetera. We will continue to follow those guidelines and established practices. The Department of Finance has issued additional guidance to be really clear about where ethical behaviour in one part of the company has implications for other parts of the company. People can bid for work and we will go through an

assessment process against those guidelines as we are required under the policy settings of government. It's also the case that there are additional contracting clauses that have been provided through the procurement system to apply to future contracts. We will absolutely abide by those guidelines and processes. I mentioned earlier that the department has spent considerable focus on integrity and probity around procurements as a result of some ANAO findings in the past. We take this matter very seriously.

Senator BARBARA POCOCK: What ANAO findings are you referring to?

Ms Quinn: We had an Australian National Audit Office review of the Entrepreneurs' Program that specifically went to the procurement process in that program. It found deficiencies in the procurement process, and we have taken remediation action but also looked at our training, our onboarding, our integrity processes et cetera. That has resulted in a reorganisation within the department in terms of adding resources into our procurement and probity and integrity area, bringing together the expertise. The PwC revelations are going to add to that, but we were already on a journey in investing in these sorts of issues.

Senator BARBARA POCOCK: Do you remember off the top of your head the value of your five contracts? My apologies again; I wasn't in the room.

Ms Quinn: We didn't get asked that specific question. If you give me a moment I might be able to give you that. I am happy to take it on notice.

Senator BARBARA POCOCK: Or in the meeting if you can.

Ms Quinn: I am happy to take notice the value of the contracts versus the expenditure as well. There's quite a gap in some of them.

Senator BARBARA POCOCK: I'm interested in the total value.

Ms Quinn: I'm happy to take on notice.

Senator BARBARA POCOCK: Have you signed any new contracts since 23 January this year?

Ms Quinn: No.

Senator BARBARA POCOCK: Thank you for your answers there. I will now move on to new terrain. This is a question in relation to the Napandee national radioactive waste facility. On 18 May I submitted a question on notice in relation to the site characterisation works currently under way at Napandee and the spend on the two legal cases underway, which I have sought information on in the past as well. Are you in a position to table that response now?

Ms Quinn: I will check. Our colleagues were expecting to come for program 1.4 in terms of answering those questions. I don't know whether they—

Senator BARBARA POCOCK: I'm asking questions that relate to the department's spend.

CHAIR: That's coming up a little bit later.

Senator BARBARA POCOCK: I was advised that it was okay to ask now.

CHAIR: It is a little later in program 1.4 at 9.15 pm. I am aware that we do have more questions on program 1.3, minerals and resources, oil and gas.

Senator BARBARA POCOCK: Sorry, I thought I could ask that now. I will come back and ask about that. It was about departmental spend on the legal costs.

Ms Quinn: That's correct. That's under the Radioactive Waste Agency. We had a discussion about them coming under nuclear power.

CHAIR: After dinner.

Senator BARBARA POCOCK: So they'll be here to answer that question then.

Ms Quinn: Yes.

Senator BARBARA POCOCK: How much compensation did the Commonwealth of Australia pay to Jeff Baldock for the acquisition of the Napandee property in order to facilitate the construction of the proposed facility?

Ms Quinn: That's for the same people. We can come back to that. Maybe we could take all questions about the Radioactive Waste Agency together.

Senator BARBARA POCOCK: I'll leave that for them.

Senator COX: I want to follow on from Senator McDonald's questions in relation to the Beetaloo Basin drilling program. At the last estimates, the department provided a figure of \$8.1 million of that \$50 million that

remained uncommitted. Can I just clarify what I thought I heard: that that went to the critical minerals program and others. Can I confirm that?

Ms Quinn: I can confirm that those savings were redirected by the government to other programs. As I mentioned earlier, it's not a precise one saving to one spend. There was a set of savings that went to a set of spending. The set of spending did include on expenditure on critical minerals as well as the offshore greenhouse gas review of regulation and the decommissioning work.

Senator COX: I don't know if you are calling it a grant to Tamboran, that was \$7.5 million, was that returned to the government or was that acquitted?

Mr Lawrence: The grant to Tamboran was honoured. It will receive a grant that covers its eligible expenditure under the program.

Senator COX: I want to ask some questions about critical minerals. In the budget there was a measure around supporting critical minerals. That was \$50 million. Are you calling it grants or rounds or projects? What is the government doing to ensure that traditional owners are consulted and that proponents obtain free, prior and informed consent? Because every mining project in this country is on the unceded lands of First Nations people.

Ms Quinn: I will direct that to my colleagues.

Ms Long: Can I confirm which measure you were referring to in relation to the critical minerals—the new budget measure?

Senator COX: It's the \$50 million in grants, supporting Australia's critical minerals.

Ms Long: The \$57.1 million is over four years to secure strategic and commercial international partnerships to develop new, diverse and resilient critical minerals supply chains. \$40 million of that is for a grant funding program that will leverage coinvestment from other countries to support projects that develop end-to-end minerals supply chains between Australia and other countries. Also \$17.1 million of that total is to commission a series of supply chain studies in order to support thinking around attracting investment and building further strategic partnerships.

Senator COX: Thank you for that. My question was, how is the government ensuring that they are embedding within this strategy, and also more broadly, consultation that is genuinely undertaken by proponents ensuring that free, prior and informed consent is obtained for the extraction of critical minerals?

Ms Quinn: I might just take this at a high level, and the team can fill it in. Through grants programs, there are the grant guidelines that set out how the grants will be assessed and how they will be allocated. Through the development of the guidelines, there's an opportunity for the government to be clear around the opportunities and the requirements for engagement with First Nations people. So that's the technical mechanism for the grant programs, where we can work through that system. It is an obligation on us as a department under the Closing the Gap requirements to look to opportunities to include in our day-to-day work opportunities to close the gap, and one of those is around the economic opportunities for First Nations people. It will be part of the work where we think about the guidelines, what is required and what steps would need to be met. We had a conversation at last estimates where the team ran through how that was being applied in a previous grant program. In this new grant program it will also be a consideration. Those guidelines have not been finalised or consulted on, so that's work ahead of us in terms of implementing the \$40 million program that was announced in the budget.

Senator COX: My interest is really in how the government is weighing up the environmental risks—climate and water—but, going to the heart of that question that I just asked about cultural heritage, we still don't have very good cultural heritage legislation. There's no standalone legislation, which I asked in a question of the environment committee last week. This government continues to talk about pushing this to supply change, but we're still talking about destruction of cultural heritage on the lands of First Nations people all over the country, and now we're going to head to the next gold rush across the country, and we're not even talking about free, prior and informed consent.

I understand there are guidelines that are usually a tick and flick, Ms Quinn, but free, prior and informed consent is really important, and it's not going to be restricted to a black business getting a contract for critical minerals, because anyone can operate on somebody else's country and not have consent to do that. I'm talking about how this government is going to ensure that they are avoiding High Court challenges and native title disputes across the country, because we continue to see the undermining of traditional owners in this country about consent, critical minerals being the next forefront of that. I'm interested to hear how they are going to honour, in fact, ensuring that free, prior and informed consent is going to be obtained.

Ms Urquhart: I'd just like to thank you for those comments. As Ms Quinn said in relation to that specific program, we're yet to develop the guidelines, so your comments to us are very timely. In addition, we've been working for some time now on a refresh of the Critical Minerals Strategy. And I think, even while the critical minerals strategy is not yet released, it's fair to say that First Nations and considerations of their interests are very important components of that strategy. We anticipate the strategy being released this year. At this stage, I guess what I would say is that we have engaged with First Nations peoples in the development of that strategy, as well as a number of other stakeholders across different interest groups. And so I look forward to discussing that with you in a future estimates once it's released.

Senator COX: Can you provide a list of who was consulted, exactly, for this strategy, on notice, for me?

Ms Urquhart: I'm just looking at my colleagues in case we're able to say it now.

Ms Long: We are able to provide some information about that now. The government commenced consultation at the end of last year to seek input and ideas around the strategy. Approximately 130 submissions were received. We also held a range of round tables with key industry and community stakeholders over the end of last year and into this year. Minister King also convened a meeting of state and territory resources ministers to discuss the strategy. We also held a number of bilateral meetings with key stakeholders. But we can take it on notice if you require further detail.

Ms Urquhart: I think we will have to take it on notice because I think our next point is that there are more than 450 stakeholders registered on our consultation hub, so it might be a bit long to get into here.

Senator COX: I am happy for you to provide that on notice. That's no problem. Given there are 250-plus First Nations claim groups across the country, I would be interested to see how many of those people were part of your community stakeholders as I saw only one First Nations person participating in all of those meetings, which I have raised directly with Minister King.

On the budget measure and the grants that were announced for the 13 projects last week, with the majority of those being in WA, do these all currently feed into the critical minerals strategy?

Ms Long: Apologies. Are you referring to the Critical Minerals Development Program grants announcement?

Senator COX: Yes. It was last week, I believe.

Mr Hutchinson: Apologies. We were conferring on your previous question and, unfortunately, missed the precise point of that question. With apologies, could you please repeat it and we will endeavour to answer it.

Senator COX: This budget measure I was referring to was around critical minerals. There were 13 grants announced by Minister King last week. The majority of those were actually for Western Australia. Are those part of or do they feed into this new critical minerals strategy and the budget measure for the \$57 million?

Mr Hutchinson: Thank you for repeating that. I'm happy to make some comments on that. The critical mineral strategy that we are developing that the government will release when they see fit—ideally, we're anticipating this year—will be a broad setting on what success looks like, what we as a country are trying to achieve with our critical minerals sector and how we might go about that. In that context, all of the government's critical minerals measures, policies and programs—and there are a large number of those that we covered off in previous estimates—are working towards to that objective.

The 13 critical minerals grants that you mentioned that the minister announced very recently were the second tranche of the Critical Minerals Development Program. That was a measure agreed in the previous budget, with a total value of just under \$100 million. The objective there is to grow the sector by supporting early to mid-stage projects, trying to derisk them, accelerate them, move them to market faster and ensure they are achieving our strategic objectives.

That is a separate but related program to the one you are referring to in the current budget, of which there is a \$40 million grant component that Ms Long was talking about earlier. That newer grant program will focus on creating co-funding with other foreign governments in key markets that we are looking to tap into for projects of interest to both countries. It is going from just pushing supply-side measures by supporting our own projects to trying to link our projects directly into new supply chains. You could imagine funding with, say, Germany, the United States, Japan or Korea for possibly an Australian mining and processing project. Or possibly it might be more around a feasibility study or an infrastructure upgrade in another country that will mean that our market can connect into theirs more easily. So they're different aspects of the same challenge.

Senator COX: Just to clarify, is the \$40 million possibly also in relation to the climate compact that was signed between Australia and the US? Does that feed into exactly what you're talking about of furthering supply

chains? I just want to clarify that. Are these new obligations or are these just formalising something that was already in place?

Mr Hutchinson: As I said before, all of the measures are related. They are all working towards that broader strategic goal that will be articulated in the strategy. So I would say that the compact that was announced sets, firstly, the broader course on critical minerals, but it talks about how we will work with the United States to accelerate the development of the sector, link them together and create low-cost, high-sustainability supply chains. In order to feed into that, the \$40 million of grant funding that has been announced would definitely be useful as a mechanism towards that. Some of that funding would ideally go towards projects of joint interest between ourselves and the United States, but the \$40 million is broader and can go towards other countries as well. In that sense, it's supporting the compact but not limited to it.

Senator COX: Thanks for defining that.

Ms Long: I want to provide a further response to Senator Cox's question and point around the engagement of First Nations people as part of the critical minerals strategy. Senator Cox, I think you indicated that you understood that only one or two people in First Nations groups were consulted as part of the strategy. That's not correct. The department consulted with a range of First Nations groups in the consultation process that we had for the strategy. For example, we went to Darwin and Alice Springs in January of this year and held meetings specifically focused on the interests of and export opportunities for First Nations communities in terms of critical minerals development. We involved the Central Land Council and the Northern Land Council in those engagements.

CHAIR: The committee will now break for dinner.

Proceedings suspended from 18:46 to 19:47

ACTING CHAIR (Senator Grogan): We'll now resume with program 1.3, outcome 1. I give the call to Senator McDonald.

Senator McDONALD: Secretary, do you echo the concerns of AEMO and the ACCC about east coast gas supply issues?

Ms Quinn: It's clearly been the case that there's been concern about near-term east coast gas supply. The government has had a policy response through the heads of agreement, reforms to the Australian Domestic Gas Security Mechanism and the work on the code in terms of improving the behaviour between buyers and sellers. So clearly there've been concerns about the operation of the market. Looking further ahead, the analysis suggests that despite reductions in demand consistent with the transition to net zero there needs to be a focus on supply to ensure that there's an appropriate supply-demand balance in the outer years. We're certainly aware of the analysis and would suggest that it's a market that needs continued monitoring, as is the case under the ACCC processes as well as the annual and quarterly processes of AEMO.

Senator McDONALD: When you say the reduced demand, what sort of time frame are you talking about when you talk about reduced demand for gas?

Ms Quinn: This is looking at the AEMO reports where they look through different scenarios. They have different scenarios. It's not a single line, although most people use a particular line that reflects current government policy or as close to. It has a sort of reduction in demand fairly steadily through time, from recollection.

Senator McDONALD: The forecast I've seen is double the gas requirement by 2040?

Ms Quinn: I'm talking about the next few years, in terms of over the next five years horizon, which is the AEMO domestic demand analysis. Are you talking about—

Senator McDONALD: I was trying to clarify what you were talking about, compared to my understanding.

Ms Quinn: I'm not sure about the acronym but the GSOO analysis over the next five to six years.

Senator URQUHART: Gas statement of opportunities.

Ms Quinn: Yes. Thank you. Gas Statement of Opportunities.

Senator McDONALD: So you recognise the need for gas in the future of Australia?

Ms Quinn: It is the case that, as we transition to net zero, there's a need for gas as a transition fuel. There's also ongoing demand for gas as feedstock in two particular chemical processes and in other processes. There is an ongoing need for gas domestically, and it's similar for some of our international partners which rely more heavily on gas than Australia does at the moment.

Senator McDONALD: Do you believe that more investment is needed to continue to develop supply?

Ms Quinn: There does need to be continued investment in the gas industry to meet that demand. I mentioned earlier that we've taken on notice what projects are identified in our most recent project analysis, which has a set of projects coming forward.

Senator McDONALD: Minister, do you share these same concerns? Are you worried about the forecast shortfalls and supply gaps across the east coast?

Senator Ayres: I think the government has done what it's needed to do to secure gas for the east coast over the coming years, and we're going to have to continue to take steps to make sure there is investment in gas supply, and that's what the government is committed to doing.

Senator McDONALD: Over the dinner break I hope that you've been able to turn back and find this. Minister, can you find one new investment by this government in securing new gas supply for the nation?

Senator Ayres: Over the dinner break, I had dinner. That's what I did.

Senator McDONALD: So you weren't able to go and identify—

Senator Ayres: I didn't commit to doing anything for you, did I, after the course of the dinner break?

Senator McDONALD: Can you point out one new investment by this government in securing new gas supply for the nation?

Senator Ayres: Our broad reprofiling of new budget decisions that go to the new gas strategy and the regulatory reforms that we canvassed before the dinner break—

Senator McDONALD: But new gas supply is what I'm trying to get at—not regulatory reform to bring new supply.

Senator Ayres: We don't take the view that it's the government's job to do the private sector's work for it.

Senator McDONALD: But it is the government's benefit for new supply coming to market with new company taxes, with the jobs particularly in regional Australia and with PAYG taxes. That'd be something you'd want to secure, surely.

Senator Ayres: The government has committed \$37.5 million to four measures in the budget: the Future Gas Strategy, net zero ready regulatory frameworks, supporting the industry by making sure that we get the decommissioning opportunities and framework right and supporting emissions reductions in Queensland. There are a series of measures there that are important to the future of the sector, and we're going to continue to work with the sector in a careful and deliberate way to make sure that gas continues to play the role that it needs to play as we reduce our emissions, support our manufacturing sectors, put downward pressure on the price of energy in Australia and support our international partners who rely upon Australian gas as they go through their own industrial processes.

Senator McDONALD: Alright. Minister, what signal does funding an Environmental Defenders Office send to the gas industry?

Senator Ayres: You probably should take up questions of detail on the Environmental Defenders Office in environment. But we're a government that's going to support the environment. We actually think the environment is important for the future of the country, and that does mean that there is a range of civil society organisations and community groups that take on these sorts of cases. It's not a bad thing, actually, that our legal system tests the boundaries of the regulatory framework to make sure that we have the world's best practice in terms of environmental regulation and compliance. It's actually a strength of our mining and resources sector, in terms of their international trading relationships and their capacity to access international markets, if there is a high level of compliance with environmental obligations and a high level of engagement with civil society groups, traditional owner groups and everybody else who's engaged in these environmental questions. So broadly, as a government, we're for the environment. But if you've got questions of detail about the Environmental Defenders Office, I reckon taking them up in environment estimates is probably the thing to do.

Senator McDONALD: Well, no, my question is actually around whether or not industry has shared concerns with you that there is more funding being directed to the EDO than being directed to gas investment.

Senator Ayres: The resources portfolio is an enormous portfolio in the government. It's a very well-resourced portfolio. The budget savings you were discussing earlier have been reprofiled across the resources department.

Senator McDONALD: Gas specifically, is my question.

Senator Ayres: There's a very strong level of support in the government, and actually a strategy—not announcements with not much delivery, but a strategy.

Senator McDONALD: Minister, my question was: has industry shared concerns with you that there is more funding being directed to the EDO than being directed to gas investment?

Senator Ayres: Not a single person inside or outside the gas industry has raised with me any concerns about the Environmental Defenders Office.

Senator McDONALD: Well, that was quick, wasn't it? Have there been any representations to the government advocating for new gas investments since the October budget, when the EDO received millions in funding?

Senator Ayres: I'd have to take that on notice, because they wouldn't come to me, and I'm not aware of what representations the minister has had.

Senator McDONALD: Thank you. Minister, what do you consider the future of gas to be in Australia? Can you see a future for the Australian gas industry? Can you outline that picture?

Senator Ayres: Have you really not been listening to my previous answers to your sort of requests for positions about the future of the gas industry?

Senator McDONALD: I've not asked this particular question before. I'd like you to describe the future that you see for the Australian gas industry.

Senator Ayres: Well, we support gas projects where they stack up environmentally and economically. Gas supply is going to be critical as we ensure that we deliver on our emissions targets and put downward pressure on the price of gas and ensure gas supply for households, for the electricity system and, in particular—in my own portfolio area—for east coast manufacturers who, had we not intervened in the way that we did to put a cap on gas prices, because of the failures of energy policy over the course of the last decade—

Senator McDONALD: Great; thanks, Minister. Is there a future—

Senator Ayres: So, you're interested in my view—

Senator McDONALD: No, Minister—

Senator Ayres: You asked me for my view. I'm telling you my view, and at the moment—

Senator McDONALD: No, Minister. I have limited time. The chair is about to pull me up, and the more time you take—

Senator Ayres: Well, don't ask questions about my view if you're not interested in the answer.

CHAIR: You have asked the minister a question. We will allow the minister to finish his answer, and then you will have another question when we come back to you.

Senator McDONALD: No—please.

Senator Ayres: Well, you asked for a view, you know? A view's a sort of—

Senator McDONALD: The longer he goes, the longer we go tonight.

Senator Ayres: It's a long answer. If you want short answers—

Senator McDONALD: The longer you go, the longer we go.

Senator Ayres: then ask precise questions.

Senator McDONALD: Thank you, Minister. Is that a future where investment and supply is supported and generated by the government?

Senator Ayres: Well, the question of investment in the private sector for gas is going to be a matter for the investment community and the gas industry. Our job as a government is to provide the right regulatory framework and to make sure we've got supply in particular, at a reasonable price. And the government's reforms, which have been opposed every step of the way in the parliament, have succeeded in achieving those objectives.

Senator McDONALD: Minister, do you expect there will be more, or less, gas supply in Australia by 2030?

Senator Ayres: The question of supply and demand in the gas market is going to be a function of economics and technology and will be very much a matter for industry. We are determined to make sure there are the right regulatory settings and that we're bringing on stream, through the acreage releases and all the other sorts of measures we've talked about, the kinds of gas resources that are required. I can't put a number on gas supply into the future. The department might be able to assist you with the department's projections about that. I rely upon the evidence for these things. If you've got questions that go to the department's projections, I think you should ask the department.

Senator McDONALD: Secretary, do you expect there will be more or less gas supply in Australia by 2030?

Ms Quinn: We canvassed earlier the funding that we received in this budget for the future gas strategy. That goes directly to looking at the supply and demand picture for Australian industry, both for domestic purposes and for export. There are a range of scenarios, depending on the emissions reduction trajectory of Australia and our international trading partners and also on other trade-offs. That is the work that we've been asked to do under the most recent budget measure, and we will commence that work. There are a wide range of scenarios, and we want to make sure that we've used the most recent government settings in understanding what the implications are for the Australian industry.

Senator McDONALD: Minister, you can put a number of 82 per cent renewables by 2030, but you can't identify if you intend to have more or less gas supply in the system by 2030? I'm not asking for a number; I'm asking for more or less than now.

Senator Ayres: That's why we've got a future gas strategy. We want to try and create the environment where the investment community—unlike the energy chaos that's characterised the last decade of utter uncertainty, which has seen billions of dollars worth of investment flood offshore, we are determined to have a strategy that provides some better information than has been provided to the industry thus far.

Senator McDONALD: To finish this line of questioning, because you can't tell me more or less, are warnings of supply shortages not concerning the government enough to invest in supply?

Senator Ayres: The government is paying very close attention to the market information and to what the regulators are saying. That's why we took the steps that we did last year. That's why we took the steps that we did in extending the cap this year. Those steps have been effective, and we're going to continue to focus on the issues that matter in the future of the gas sector.

Senator McDONALD: It's a very specific question: are the warnings of supply shortage not concerning the government enough to invest in supply—not to do studies, to invest in supply?

Senator Ayres: I gave my answer.

Senator COX: My question is in relation to the resources and energy major projects list. My understanding is that the projects that are included in the REMP, the annual one, is that they will potentially reach FID over the next five years. Is that correct?

Ms Dowdell: The major projects list contains a broad list of projects that are at different stages. If there were particular projects you were interested in, I would have to take that on notice, but it will include those that are at feasibility, pre-investment, post-investment, production and completion stages. It covers the full spectrum of projects.

Senator COX: If the climate department foresees the Beetaloo project starting within the next five years, can I ask why that's not included within this list?

Ms Dowdell: I'd have to take on notice whether it is or isn't in the list. I don't have that detail with me.

Senator COX: I can guarantee it's not on the list, because we've gone looking for it. I just want to know why it's not included in the list if it's going to be reaching FID in the next five years. That's the assumption that has been made. If it's not there, would you expect it to be on next year's list?

Ms Dowdell: We will continue to construct the list, looking at the full spectrum of projects that are potentially coming online. Yes, I expect it would potentially be included in this year's list.

Senator COX: Thank you very much, Ms Dowdell. Also the Verus project, which is formally the Evan Shoal project: my understanding is that the Italian proponent, Eni, intends for this project to be up and running in 2027-28. Can I ask why that is not included in the list?

Ms Dowdell: Apologies; I've only recently started in the role, so I don't have in-depth knowledge of why things were and weren't included on the list. I'll have to take that on notice and come back to you. I would say that while the list is an attempt to take a stocktake, it is an indicative list. We do try to keep it as complete as possible, but it's not an absolute stocktake of all projects. I will come back to you on those two particular projects as to why they were not included.

Senator COX: At this stage, do you expect December's list to be higher or lower than the 118 coal and gas projects from last December's report, given that—

Ms Dowdell: I couldn't speculate at this point. We know that there are some projects that are delayed, deferred or have been cancelled. There are other new projects that are coming on. We don't keep a running tally of where individual projects are throughout the year, so I couldn't speculate as to whether it will be higher or lower at the end of the year.

Senator COX: Given the changes to the safeguard mechanism, I'm hoping that that's a regular review as these projects start to move towards. Maybe the minister is in a better position to answer that question. Obviously, there's a ratchet mechanism that is in that, of seeing the pollution go down and climate emissions being reduced rather than going up. If we're opening up more new coal and gas projects across the country, I would hope that December's list would be reflective of that and the legislative changes that we've actually made. I don't know if Minister Ayres has any comment about that.

Senator Ayres: It's really a question for the relevant minister, but if I am asked, 'Are we confident that the mechanism is going to do the work that it needs to do?' we are confident.

Senator COX: Thank you.

Ms Dowdell: I would just note that the project list covers a broad spectrum of resources projects, including critical minerals and new and emerging technologies, so we might see some movement in different categories, reflecting regulatory changes. But it does include that broad suite of commodities.

Senator COX: The latest information that I have is that we're at 67 coal projects and 49 gas projects, a total of 116, that are in the pipeline for FID. That's the information for the next five years that I've been handed. If you could provide on notice any more information reflective of that, I'd be appreciative.

Ms Dowdell: Will do, Senator.

Senator COX: Thank you. My second question is about Budget Paper No. 1, table 9.2. There was some information regarding the Gorgon CCS plant. It is titled 'Gorgon liquefied natural gas and carbon dioxide storage project—long-term liability'. Can you explain to me what this measure means.

Ms Urquhart: My colleagues are recommending that I refer you to the Department of Climate Change, Energy, the Environment and Water. They have lead on CCS.

Senator COX: Happy to do that. Thank you very much for that. That's all my questions, Chair.

CHAIR: Thank you, Senator Cox. Senator McDonald.

Senator McDONALD: I want to turn to the Gas Well Trials program. Budget Paper No. 2 highlighted that \$14.3 million would be used to establish a partnership with the Queensland government to support projects that reduce emissions and enhance energy security, using funding redirected from the Gas Well Trials program. How much funding was originally allocated to the Gas Well Trials program?

Mr Lawrence: Originally, the Gas Well Trials had \$15.7 million allocated to it. That was \$15.7 million in administrative funding and \$100,000 for the department.

Senator McDONALD: And what was the Gas Well Trials program and its funding designed to do?

Mr Lawrence: The Gas Well Trials program was to be delivered in partnership with the Queensland government. It was to better understand the technical challenges associated with some drilling techniques and to bring down assumed field production costs.

Senator McDONALD: And, hopefully, to maximise the state's ownership of the gas, I assume. How much of that original funding was spent?

Mr Lawrence: A total of \$1.3 million was spent in the 2021-22 financial year.

Senator McDONALD: How much of that funding was redirected from this program to the partnership with Queensland?

Mr Lawrence: The remaining \$14.3 million.

Senator McDONALD: Where is this funding being directed—to the Queensland government, to the department, to agencies?

Mr Lawrence: The funding will be similar to the Gas Well Trials program. It will be funded through a federal financing arrangement with the Queensland government.

Senator McDONALD: What does 'reduce emissions' mean in reference to this program and potential projects?

Mr Lawrence: The program is designed to look at emissions reductions technologies that are at precommercialisation stage to look at reducing the emissions across the energy resources sector.

Senator McDONALD: Would it include things like funding CCUS, developing more gas power stations, stopping wind farms from land clearing?

Mr Lawrence: It's about looking at technologies that would reduce emissions through gas production, whether that's at the well site or at processing facilities. It could be looking at activities that, instead of flaring the methane, capture that methane, potentially looking at the electrification of services, wells or processing facilities.

Senator McDONALD: What does 'enhance energy security' mean in reference to this funding and potential projects?

Mr Lawrence: If we're capturing the methane instead of flaring it, it could then be put into the system and used to increase the supply of gas.

Senator McDONALD: So it would support more reliable base load and firming power, like coal and gas?

Mr Lawrence: It's about—if we're putting more molecules into the system, it goes where it goes.

Senator McDONALD: I want to turn to positioning the Northern Land Council to deliver in the Beetaloo. This budget has almost \$1.1 million allocated over 2022-23 and 2023-24 for positioning the Northern Land Council to deliver in the Beetaloo. Secretary, what does this program do? Mr Lawrence?

Mr Lawrence: As you said, there was \$2.1 million in administered funding. That program is due for completion by 30 June 2024. To date, the grant has supported the construction of a meeting space in Elliott for on-country meetings for consultation and negotiations with traditional owners and native title holders and the purchase of equipment to conduct on-country consultation, including two purpose built buses and three satellite phones. It also funds consultation activities with traditional owners and has supported the recruitment of additional staff.

Senator McDONALD: Mr Lawrence, if funding is being cut to the Beetaloo basin drilling program and the strategic basins plan in 2023-24, why is there an additional \$546,000 allocated for this program in 2023-24? What will that be spent on?

Mr Lawrence: As I said, the full grant was \$2.1 million, and that was \$1.1 million for 2021-22, half a million dollars for 2022-23 and half a million dollars for 2023-24. As I said, the grant's completion date is 30 June 2024, and that is ongoing for next year.

Senator McDONALD: Again, if the funding has been cut to the Beetaloo basin drilling program and the strategic basins plan, what consultation is the department supporting the Northern Land Council with?

Mr Lawrence: The gas companies continue to develop the resource, and they are required to consult with traditional owners on country. This is to help to support the Northern Land Council to do that.

Senator McDONALD: What do you see the future gas strategy looking like—a white paper, a review, program development? Can you describe that for me?

Mr Lawrence: We're the early stages of developing that strategy and consulting across government on what it will look like. As others have already said today, the strategy is about supporting Australia's energy system to reach 82 per cent renewables by 2030 and to ensure or maintain our international reputation as a trusted energy supply to our longstanding trading partners. As others have commented today, and I think you have as well, both AEMO and the ACCC have forecast that the supply-demand balance for gas on the east coast will remain tight through until 2030. In Western Australia, the supply-demand balance begins to tighten from around 2027. In the export context, Australia is in the top tier of energy suppliers to global energy markets. That's a position the country wishes to maintain and grow as we become a renewable energy superpower. As we've heard already today, the IEA forecasts that global gas demand will increase to 2030 and that demand will be strongest and most sustained in our region. Therefore, with that in mind, the department will develop a base of quantitative and qualitative evidence that forecast the supply-demand balance of gas out to 2050. We will look at the demand projections and scenarios, and we will examine both domestic and regional markets. The strategy will also assess the extent to which alternatives to natural gas, such as biomethane, synthetic gas and hydrogen; and government policies will alter total demand for gas in residential and industrial applications.

As you know, gas supply projects have long lead times to develop as necessary to establish a clear, long-term gas supply policy framework. The framework will better assist governments and industry in ensuring that future gas supply meets expected domestic and international demand in the longer term. It will be a national plan, and we will work closely in partnership with state and territory governments, market bodies, industry and local communities to develop the strategy throughout the rest of this year.

Senator McDONALD: Thank you. Secretary, does this strategy include an east coast state like Victoria developing onshore production to secure their own gas demand? Are there conversations that you are having?

Ms Quinn: As my colleague Mr Lawrence just said, we're in the early stages of mapping out the work program, but he just gave a comprehensive answer which included consultation with the state governments. He also indicated it's a national plan, so that would include Victoria.

Senator McDONALD: Minister, what signal does it send to the gas industry that more funding's being directed to the ACCC to enforce fines and compliance than is being invested in the future gas strategy?

Senator Ayres: I think they are two entirely separate matters. I think the gas industry benefits from strong regulation because it means that there are good operators. The benefit of having a good regulatory framework and effective enforcement is that it protects good operators and it fosters good industry. I would think that the gas industry would welcome the compliance efforts of the ACCC, and I would think you would too.

Senator McDONALD: Does this mean that the government believes the gas industry is more likely to contravene your overbearing regulations than to continue to have a future in Australia?

Senator Ayres: No.

Senator McDONALD: Minister, your government has cut tens of millions in funding for gas development, for gas strategies and infrastructure and for gas exploration. It's apparent that your future gas strategy is one that does not include gas. Will your government take responsibility if there are gas shortages because you haven't invested in supply?

Senator Ayres: The question would make sense if it sustained the evidence over the last couple of hours of questions. The future gas strategy is about gas. It is about all of the things that I won't cover again that Mr Lawrence went through in some quite some detail, but it is about achieving all of those objectives and doing it in a partnership with the states and territories, with the gas sector itself and with gas users. That's the kind of approach that this government wants to take. It's a big piece of work. It's an important piece of work. It's very much in its early stages, and I look forward to watching its progress.

Senator McDONALD: It just sounds a little more like a stocktake than it does a strategy, but I appreciate that's a comment. How many projects applied to the latest round of the Critical Minerals Development Program?

Mr Hutchinson: The figure was around 115.

Senator McDONALD: Was this round open publicly or were key projects invited to apply?

Mr Hutchinson: This round was an open, competitive round.

Senator McDONALD: Was it oversubscribed?

Mr Hutchinson: How do you mean 'oversubscribed', sorry?

Senator McDONALD: More applications for dollars than you had dollars.

Mr Hutchinson: Yes.

Senator McDONALD: Would an additional hundred million dollars in funding, as committed by the coalition, have benefited this program?

Mr Hutchinson: I'm not sure I can answer that one.

Senator McDONALD: How about this then? How much was the program oversubscribed by?

Mr Hutchinson: Can I just make a clarifying point on that? An open, competitive process is, as you suggested, open to the public. Anyone can apply. They're then assessed for eligibility, and then they're assessed for merit. The total figure of dollars sought through the program doesn't necessarily indicate the total figure of dollars that the government would deem meritorious. That would be a much more difficult question to ask. Obviously, with additional funding, more projects could be funded, and, with less funding, fewer projects can be funded.

Senator McDONALD: Were there more projects deemed meritorious than you had funding available for?

Ms Quinn: We're happy to take that on notice and see whether we have that information. I don't have it in the background information we have on that grants program. I have lots of stats and time lines et cetera around the program, but I don't have the split between what might have been judged in the advice meritorious. As my colleague said, it's a decision of the delegate. In this case it was the minister, so advice was provided. But I'm happy to take it on notice and see what we can provide you with.

Senator McDONALD: Thank you. What I'm trying to understand is the project application numbers and the numbers that were deemed to be meeting the guidelines and meritorious. We know how many there were—115.

Ms Quinn: The number I have is 113.

Senator McDONALD: I'm sorry; I've written down 115. So 113 projects were successful, and I'm looking to see how many projects were meritorious but weren't funded.

Senator Ayres: The department said they'll take it on notice. I think the difficulty is that the way that you've expressed it might not be able to be answered. The department will do its best.

Senator McDONALD: I would imagine that there would be a list of projects that were considered, and which ones were deemed meritorious, and then the minister made a decision on which ones got funding.

Senator Ayres: Yes. Tell me if I'm wrong, Secretary, but there would be projects that would meet the guidelines—that doesn't mean meritorious. Then I imagine there's a process that ranks them. And, at some bar there, you may think that bar is meritorious, and the department may have assessed it there. It's not something that I think they can sensibly answer. They may be able to. I'm just trying to be straightforward with you—

Senator McDONALD: I appreciate it. It's not a trick question.

Senator Ayres: about what may be possible here. That's all.

Senator McDONALD: It's not a trick question. I assume that the department provided a list of projects that were up to scratch to be funded, and then the minister decided which ones would be funded. What I'm trying to identify is how many more and what the dollar number was of the list of projects that were put forward to the minister that just couldn't be captured by the funding that was available for the grant.

Senator Ayres: We'll see what we can do but with the qualification that I just gave you, if that helps.

Senator McDONALD: Well, if the department are okay—

Senator Ayres: It's a matter for the department, answering it.

Senator McDONALD: Yes.

Senator Ayres: But I'm just saying, on the basis of what I've heard, that it may be difficult to answer.

Senator McDONALD: Otherwise we'll use the very open process of the Attorney-General and go to an FOI, if that's more helpful to the department. You will be pleased to know, Chair, that this is my last question. It is referencing question on notice No. AET191, which was asked to Treasury. It was with regard to Empire Energy's accelerated investment, which is the only example of new investment in supply since the government's intervention that I can ascertain. Was Empire Energy in any way assisted by programs or grants under the Beetaloo Strategic Basin Plan?

Ms Urquhart: While Mr Lawrence joins us, may I ask: am I correct that you said that it was a question on notice put to Treasury?

Senator McDONALD: Yes, so you won't have it, but I'm just making sure that there is a reference point, if you need to find it.

Ms Urquhart: Sure.

Mr Lawrence: Empire Energy received three grants under the Beetaloo Cooperative Drilling Program.

Senator McDONALD: This is good news. This is the example of new investment in gas supply based on a program that has now been cut. That is the end of my questions. Thank you, Chair.

ACTING CHAIR: Thank you, Senator McDonald. Thank you very much to the department. We will now release the relevant humans, and we will call NOPSEMA.

Ms Quinn: While we're waiting for NOPSEMA to join us, could I just correct a previous answer and provide additional information?

ACTING CHAIR: Absolutely, Ms Quinn.

Ms Quinn: Senator Pocock asked me about the total value of contracts with PwC, and I undertook to take it on notice. We've got five active contracts at the moment in the department. The combined contract value is \$15 million, of which \$5.3 million has been expended. She also asked a question about whether any contracts had been entered into since January. I was thinking of the more recent revelations around PwC in May, and I answered no. The answer is that, since January, we've entered into two contracts, one of which has been opened and closed, and one of which is still ongoing. I just wanted to correct the record on the second question and provide additional information on the first question that the senator was asking for. Thank you.

ACTING CHAIR: I also put on the record that we will be calling AWRA and ANSTO at the same time. I mention that just for people's information and for planning purposes.

National Offshore Petroleum Safety and Environmental Management Authority

[20:27]

ACTING CHAIR: Welcome. We will go to Senator Cox.

Senator COX: Thank you very much, Chair. Welcome to NOPSEMA, and thank you for appearing so late at night. Early in May, NOPSEMA released an updated guideline in relation to the consultation in the course of preparing an environment plan. This was originally released in December for comment. Your website states that minor updates have been made. Can you walk us through those updates? Are they more about clarifying language?

Ms McCarrey: I'll pass to one of my colleagues in a moment. We have actually done some updates. We received quite a bit of feedback from a number of different parties on the original framework that we had up there. We went through all of that feedback, but it only then required a few updates to the actual guideline, which we've put up on the website since then.

Mr Grebe: Senator, you're correct. They are minor wording changes. The guideline is intended to clarify the instructive reasons for the decision of the Full Bench of the Federal Court in the appeal decision for the Barossa drilling environment plan. The guideline explains and clarifies how that decision affects reading and interpretation of the environment regulations in relation to the consultation that's required in the course of preparing an environment plan—regulation 11A. The changes relate to clarifying wording and terminology to ensure that the guideline is fully aligned with the appeal decision of the Full Bench of the Federal Court.

Senator COX: Is this a direct result of the industry consultation that you heard, or are these from other discussions that NOPSEMA have conducted?

Mr Grebe: We received a number of submissions from stakeholders—industry, environmental groups and union organisations.

Senator COX: Could you provide a list of those on notice?

Mr Grebe: Yes, we can provide that on notice.

Senator COX: Is it in its final version now?

Mr Grebe: Yes, the guideline was published for use in December for an interim period, while we sought feedback on the draft.

Senator COX: Is there any grace period for industry to enact their changes, or have the changes applied since the appeal judgement was finalised?

Mr Grebe: They've applied since the appeal decision on 2 December.

Senator COX: How are NOPSEMA ensuring that industry understands and respects the fundamental importance of this case and the guideline? Can you outline specifically what you've done in relation to that?

Mr Grebe: Yes. It's a good question. The guideline isn't the only way we're communicating the requirements post the appeal decision. We've been carrying out extensive engagement directly with companies that are preparing environment plans for submission or resubmission, we've run workshops and we've carried out full public stakeholder briefings on the requirements. We've also been meeting directly with representative bodies of First Nations groups. We've written to all of the relevant groups inviting them to review the guideline and meet directly, and, where that has been requested, we've done that. I've travelled to Darwin and Carnarvon, Karratha and other locations to meet in person. We've also of course continued to make assessments and make assessment decisions that provide our feedback where the submissions don't meet the requirements in our decision letters.

Senator COX: I understand that NOPSEMA doesn't have the power to monitor the ongoing consultation about environment plans; is that correct?

Mr Grebe: I'm assuming that you're referring to the requirement for the environment plan to include arrangements for ongoing consultation? No, it's not correct. There's a requirement for a titleholder to comply with the environment plan that's in force, after we've accepted it. That does include the plans for ongoing consultation. That would form part of our compliance monitoring program, along with the other requirements that are identified and included in environment plans.

Senator COX: Mr Grebe, in making a determination about an environment plans, is NOPSEMA wholly reliant on the information provided by the proponents, and is that the only information that you rely on?

Mr Grebe: Our environment assessment policy, which is published, explains how we administer our decision-making powers under the environment regulations on all assessments. That includes environment plans. The decision criteria do relate to the environment plan itself, in terms of demonstrating that compliance has been met for the criteria for acceptance. That said, there are several other avenues I will point out. One is that the environment plan includes content requirements, including what's called the 'sensitive information' part, which

includes all information received from relevant persons. So, although it's obviously provided to us by the proponent, it's actually source information from relevant persons—third parties, including First Nations groups, individuals and fishing representative bodies. That often numbers thousands of pages. That information is considered by us in our assessment. Our policy also identifies that, where we have access to information, it's provided by third parties and is relevant to an assessment. We do take that into account through the assessment process. Our policy does identify that we may make our own inquiries in the course of conducting an assessment and making decisions, if we decide it's necessary. So we don't just rely on company documentation in that sense.

Senator COX: In how many instances, would you say, have NOPSEMA exercised that, Mr Grebe, and actually gone outside the information a proponent like Santos, in the instance of the Barossa gas field, has provided? In how many instances would you go outside of that and do your own inquiries?

Mr Grebe: I couldn't put a number on it, because it would be for a number of different reasons—for example, on technical aspects like marine mammals, we would go to the Australian Antarctic Division, who are the recognised centre of expertise on that in the Australian government. Right across the spectrum, there would be many, many occasions where we have done that. I would point out that you mentioned one instance there. We don't have any environment plans submitted and under assessment for Barossa at this point in time. We have issued a decision in relation to the drilling environment plan and, following the appeal decision, are requiring additional information in the environment plan, because the decision was set aside to approve the environment plan.

Senator COX: I have been advised directly by the traditional owners that were involved in the Tiwi case that Santos have ignored requests to bring translators to meetings, leaving people unable to understand the material they're presenting. They have attempted to consult Tiwi Islanders about multiple environment plans at the time, despite the requests from Tiwi people to only consult on one plan at a time to avoid confusion and overload. They have lied directly to the Tiwi Islanders and explicitly claimed that these projects pose no environmental risk and have no environmental impact, which is a barefaced lie; we all know that. It is in fact the opposite of what an environmental plan should cover, not quantifying and mitigating what those environmental impacts are. They're definitely not articulating any of this information.

This is really offensive. Santos have been known to be ignoring elders and clan leaders and booked so-called meetings during ceremony and cultural festivals that are being held on country, which is at the core of Tiwi culture—kinship, spirituality and honouring their land and sea country. Santos have pushed ahead for this consultation when there were five deaths in their community. For those who don't know, mourning is a sacred time in First Nations communities. People travel to the islands and across country to take part in sorry business, ceremonies and funerals. And yet Santos continue to ignore Tiwi people's requests and push ahead to try to squeeze what they're calling consultation on simultaneous environmental plans. Does this sound to NOPSEMA or the government like Santos is actually doing the right thing by Tiwi people with respect?

Mr Grebe: The first thing I would like to say is that NOPSEMA obviously has a priority on ensuring that First Nations cultural heritage matters are identified through consultation, and appropriately considered through the environment process to be managed. Our role is to ensure that environment plans feature that before they are accepted. Unlike the consultation that's carried out during an activity once we have accepted an environment plan, NOPSEMA doesn't have a compliance role in companies' consultations in the preparation of their approvals, so I can't comment any further on those matters. I'm simply not aware of them, nor do we have a role in overseeing them.

Senator COX: So if these are matters are reported to NOPSEMA, Mr Glebe, surely NOPSEMA can take these into account in relation to the new evidence of drilling environmental plans that Santos are putting forward. These clearly do not articulate free, prior and informed consent, which was at the heart of the Barossa determination, which went against Tiwi people being identified as relevant people. I don't know. Minister, you might have similar comment around this, but surely NOPSEMA is doing more about the conduct of proponents across the country who are continuing to disrespect traditional owners in relation to offshore gas projects.

Senator Ayres: I think the agency has given the only answer they can give in terms of their responsibilities. Of course, the government has high expectations for—well, they're not high expectations; we have well-known expectations about consultation with traditional owners and Aboriginal communities about all these kinds of projects.

Senator COX: But Minister, do you think the gas companies across this country have a good record of obtaining free, prior and informed consent from traditional owners, particularly in relation to gas projects?

Senator Ayres: It's not really for me to say. For all of these—whether it's the gas sector or the mining sector more broadly—there have been instances of poor performance. I've listened to your account in terms of that particular project, and I'm keen to hear more.

Senator COX: I have plenty more examples—

Senator Ayres: Maybe not this evening, but I'm keen to hear more.

Senator COX: I'm more concerned about what the government's going to do in relation to making sure that this work of traditional owners in a hard fought court case—and I had the privilege of being there when the on country evidence was given to the court—is not going to be in vain and that this government take seriously how they make amendments both to the legislation and to the regulation to allow NOPSEMA to hold proponents to account. I'd like the government to provide some level of response to that, because right now we're all sitting idle, waiting with bated breath for the next instance when traditional owners have to have a bag of cash waiting to hold up projects, and then we're deemed to be the bad people, not acting in good faith and not being good actors, because the government are failing to do their job. The regulators can't do their job if the government don't change the legislation based on this determination.

ACTING CHAIR: Senator Cox, I'll let the minister answer the question, but then we are going to need to rotate the call. We can come back to you.

Senator Ayres: The government's watching carefully.

Senator McDONALD: At the last estimates you provided an update on the 45 environmental plans you were assessing. Can you please provide an update on the status of the plans you are currently assessing, including any that are no longer in assessment?

Mr Grebe: At the time of the court decision that set aside the environment plan for Barossa we had 30 environment plans under assessment and five in preassessment phase for completeness checks prior to commencing assessment or public comment. Since that time, two environment plans have been accepted and 30 are under assessment—that's two that have progressed from the preassessment phase—and three are in the preassessment phase awaiting responses from titleholders to provide complete information to allow the assessment to continue. In addition to that, since the appeal decision we've had an additional 11 environment plans submitted to NOPSEMA. Nine have been through the completeness checks and under assessment, and two are in the preassessment stage.

Senator McDONALD: Thank you. My next question is: does this include any new environmental plans that have been submitted to NOPSEMA? I assume that's the 11 you just referred to.

Mr Grebe: Yes—sorry—I carried on; I assumed you'd want to know that one as well.

Senator McDONALD: Yes. Thank you. Have any plans not been resubmitted to NOPSEMA?

Mr Grebe: There are a number of environment plans that remain with the titleholder. As I think I mentioned in answer to an earlier question, along with Santos we also issued a request for further information or not-reasonably-satisfied decisions to any environment plan that was under assessment at the time of the appeal, and a number of those are working on the responses to those to carry out the additional consultation. We do meet with those titleholders and understand that they're making progress in carrying out the new consultation requirements.

Senator McDONALD: Do you know how many fall under that category?

Mr Grebe: All I can say is that we haven't had any environment plans—although it's two days since we captured the snapshot—formally withdrawn in full, apart from one environment plan for a seismic survey that was a very large-scale cooperative seismic survey environment plan, where there are 11 proponents in a cooperative.

Senator McDONALD: I'm sorry if you've answered this and I've missed it, but have any plans been approved by NOPSEMA since the review? Is that the two you referred to?

Mr Grebe: Yes.

Senator McDONALD: That's those two. Okay; great. Based on media reports yesterday in the *AFR* and the government wanting to break the logjam of NOPSEMA projects, what role is NOPSEMA playing in this?

Ms McGarrey: Senator, I'll pick that up to start with. NOPSEMA is obviously working, as Mr Grebe has just mentioned, extensively with industry and First Nations groups to work through the process and establish some frameworks and pathways to assist with moving environmental plans forward, but with the appropriate consultation that's required. We do work closely with the department in any policy they're developing in this

space, and we will do in relation to the regulation review that was announced through the budget. Mr Grebe might have something in addition to that.

Mr Grebe: I think I'll expand on and probably respond to the logjam reference, which I understand was in the media as well. It implies there's no progress. We have made quite a number of decisions on environmental plans under assessment and provided decisions to title holders that identify further work required. That's an important part because it lays a pathway for completion and enabling compliance with that environmental plan. In that process we do meet directly with title holders to provide feedback and discuss guidance on how they need to adjust things, carry out additional consultation or meet other requirements that have not been met.

Senator McDONALD: Thank you. You finished abruptly.

Mr Grebe: Sorry. There's lots of detail about the work we do. I think the inference in the article was that we're sitting there waiting with no environment plans, and nobody is submitting and we're not making any effort to explain. That's not the case. The reality, as I gave evidence on in the last estimates, is that we acknowledge there is additional work required because of the broadening of the interpretation brought by the appeal decision. That's an additional workload on title holders but also on stakeholders that are consulted. 'Relevant persons' identified both organisations and people, so there's a challenge for both parties to carry out the additional work. The statistics that we're able to provide don't illuminate the amount of work that is actually going on to progress projects. But there is additional time, no doubt, and the article, I think, accurately reflects that position.

Senator McDONALD: Thank you. Will NOPSEMA be involved in the full review of the offshore environmental management regime as announced by the government? What role will NOPSEMA play in this review?

Ms McGarrey: We'll provide information to the department as part of the review. The review is actually led by the department, because it's in the policy context, but we'll provide input into that review as the process unfolds. It's still in its early stages, but once there is an invitation for us to provide input we will do so.

Senator McDONALD: I was going to ask when you expected this process to start. When you say 'early stages', are you saying that it has started?

Ms McGarrey: That's a question for the department, I'm afraid. I know it's within their budget but I'm—

Ms Urquhart: Senator, we are at the early stages of planning. 'Imminently' is the best I could say at this stage.

Senator McDONALD: The early stages of planning the review?

Ms Urquhart: Yes.

Senator McDONALD: What clarity will it provide industry? I think this is for you, Ms Urquhart, as well.

Ms Urquhart: The point of the review, in looking at the regulation, is at least partly about bringing clarity. I think we've discussed quite a lot tonight the importance for prospective investment of having a regulatory regime that is fit for purpose, streamlined and clear in its communication of expectations. So I think you hit the nail on the head there when you pointed to clarity. It's a key concern for us.

Senator McDONALD: Back to NOPSEMA: can NOPSEMA please walk through the division of responsibility between NOPSEMA and the Department of Climate Change, Energy, the Environment and Water with regard to CCUS management and oversight.

Mr Grebe: I might take the first one on that, Senator. As we understand from working with the department of environment—if it's okay, I'll shorten it to that—in relation to environmental management, the department is responsible for administering the sea dumping act and, obviously, the EPBC Act. In short—without taking up the whole night—the arrangements for environmental approvals for injection activities would require, if they're triggered, approval under the EPBC Act. So they would also have responsibility for that.

NOPSEMA's responsibilities in relation to environmental management for CCUS are under the environment regulations, which cover both petroleum and greenhouse gas storage, including injection operations. The reason for making the distinction is that there is streamlining in place for petroleum and greenhouse gas exploration activities under our regulations that mean that proponents don't need to get separate approval under the EPBC Act. There's a strategic assessment in place. We report to the department those arrangements. So that is a division of responsibility. We're still connected in the way that environment protection is managed through those streamlining arrangements. That department also, obviously, now includes the policy agency in relation to CCUS that I understand has been referred to in evidence tonight. They would also have responsibilities covering other aspects of CCUS outside environment. But they're also outside of NOPSEMA's responsibilities.

Senator McDONALD: What is the division of responsibilities between the Minister for Resources and the Minister for Climate Change and Energy with regard to NOPSEMA?

Mr Grebe: The streamlining that I mentioned under the EPBC Act for offshore petroleum and exploration of greenhouse gas storage is via a strategic assessment, which means that the environment minister has a class approval for petroleum activities under part 10 of the EPBC Act. We have a reporting obligation through the department on compliance with the program that's in place, that we've committed to, which is essentially applying our regulations. So we report progress and compliance on that to the environment minister. There are also independent reviews of that program which are reported through to the department and the environment minister similarly.

Senator McDONALD: That sounded like it was all environment. What are the responsibilities of the minister for resources, then?

Mr Grebe: Are you asking about the minister for environment versus—

Senator McDONALD: The division between the two, the Minister for Resources and The Minister for Climate Change and Energy.

Ms Urquhart: There are different responsibilities in a regulatory sense, stemming back to different acts that govern different aspects of the regulatory work. Another example, and I'm not sure if it was mentioned previously, comes in respect of the Offshore Electricity Infrastructure Act, where we see both NOPTA and NOPSEMA undertaking work and providing advice to the Minister for Climate Change and Energy. If you like we could map it for you. There are different connections depending on the legislative foundation.

Senator McDONALD: That would be terrific. Every act you open up runs off in a different direction. Just to finish off this question, does NOPSEMA have reporting obligations to both ministers? Who is considered the senior minister in regard to NOPSEMA? It sounds like that's going to be a hard question to answer, but I'll ask you to have a crack at that.

Ms Urquhart: Absolutely.

Senator McDONALD: Could you take that on notice as part of that mapping exercise.

Senator O'NEILL: I have a series of questions that hopefully we can get pretty quick factual answers on and move through with speed at this point of the evening. Is NOPSEMA aware of turnaround works being conducted by Woodside on the Pluto platform?

Mr O'Keeffe: Yes I am. There is an activity there involving upgrading facilities, installation of water facilities and other maintenance work.

Senator O'NEILL: I understand that NOPSEMA inspectors came out by helicopter to the accommodation vessel *Floatel Triumph* on 15 May 2023—is that correct?

Mr O'Keeffe: Or thereabouts—that's correct.

Senator O'NEILL: And the aim was to investigate activities connected to the turnaround work scope on the Pluto platform. Are you aware of that visit?

Mr O'Keeffe: Yes. It was within my division. It would have been an inspection party go out there to take a look at the works as they stand. Depending on the activities happening at that time, they would deal with in scope or they would change the scope accordingly.

Senator O'NEILL: For those of us who have not experienced it, can you explain what a floatel accommodation vessel is and why NOPSEMA went by helicopter to the facility?

Mr O'Keeffe: If I take the last bit first, we always go by helicopter offshore.

Senator O'NEILL: It's long way to swim.

Mr O'Keeffe: Yes, or in a boat. We always deploy by helicopter. The floatel is a floating hotel. It's an accommodation vessel. With an accommodation vessel you can deploy people in far greater comfort with greater support to go and do works on a concentrated basis on the platform. The Pluto platform is actually quite small. It has limited overnight accommodation, so by having the floatel next to it with up to 150 people on board means that the beds that would normally be on the platform 16 or 20 at the time, you can have multiple layers of workforce to be able to get things done on a 24-hour basis. In other words, you can discharge the work much quicker. It also means better accommodation for the workforce when they're there. Normally the floatel is actually attached by a bridge or bridges to the platform to allow the workforce to go back and forth. It also provides a means of escape in an emergency. That's what they do. They'll eat and sleep on the floatel and they'll work on the platform.

Senator O'NEILL: I'm sure it would vary slightly from place to place, but generally what's the purpose of using a large accommodation vessel, in addition to the comfort and safety angles that you've indicated, when they're undertaking major turnaround projects? Is it just the frequency of movement for the shifts?

Mr O'Keeffe: It allows you to get more work done quicker within a certain weather window or a certain period of time. You have the various trades that don't hold each other up. They can do work on the vessel and come back and forth. It's used commonly across many, many facilities to get significant pieces of work done in a much more efficient way in more comfort and safety for the people involved.

Senator O'NEILL: You said that you were there, but is it correct that *Triumph* is actually not a facility which needs to be inspected by NOPSEMA, because it's a vessel which comes under AMSA's jurisdiction?

Mr O'Keeffe: The vessel when it's attached to the platform is performing that part of the work, and there would be a safety case for that which covers the work as it occurs at that time. What happened was on that particular occasion when our people went offshore, it's detached from the facility due to operational reasons and weather reasons. The vessel has the ability to manoeuvre itself away from the much smaller platform and take it to a place of safety in the event of these weather occasions. It will sit outside of the range of the platform at the time.

Senator O'NEILL: I'm still not clear about why it turned—my understanding it's AMSA's jurisdiction. Are you saying that because of its physical location, separated from the platform for a period of time, it then became your jurisdictional responsibility?

Mr O'Keeffe: I'll come back on when that precisely occurs, but what I can say is that it's designed to be alongside the platform to get their work done. In the event of weather or operational reasons it will move away from the platform.

Senator O'NEILL: You have explained something there to me, but I'm going to ask this question again because I don't think I understood an answer to this question. Is it correct that the *Triumph* is not a facility which needs to be inspected by NOPSEMA because it's a vessel that actually comes under AMSA's jurisdiction?

Mr O'Keeffe: I will take that on notice to define the precision about what happens at the different points when it's attached to the facility and when it's displaced from the facility. We'll come back on notice.

Senator O'NEILL: So this is a jurisdictional differentiation between yourself and AMSA, is that what you're telling me?

Mr O'Keeffe: There can be a point where the vessel would be at sea and then it comes in to do specific piece of work attached to the platform. I will come back to you on the point at which you would transfer from one regime to the other.

Senator O'NEILL: I won't hold you to this, because you are going to give me an answer on notice, but can you give me a rough idea of the moment that that occurs? Is there a distance involved in that, or is there a purpose that's involved in that difference?

Mr O'Keeffe: The issue of accommodation vessels or the floatel has come up before. It's to the point at which the people working on—because they are there to work on the platform, that's the purpose of doing so—that would then relate them to being covered within the safety case, which would be under our jurisdiction. As I said, I will revert on to the point at which that would no longer be the case.

Proceedings suspended from 20:59 to 21:13

ACTING CHAIR: We will resume with NOPSEMA. Senator O'Neill, you have the remaining four minutes of your block.

Senator O'NEILL: Thank you very much.

Senator Ayres: Chair, I think Ms McCarrey had an opening statement, which we somehow glossed over. Would it be appropriate to do that now, or do you want to conclude Senator O'Neill's line of questioning first?

ACTING CHAIR: Can we conclude, and then—

Senator Ayres: We're in your hands. I just wanted to let you know.

ACTING CHAIR: Would you like to table it?

Ms McCarrey: I was to do an opening statement, but I'm quite happy to table that for the record. We are happy to clarify a little bit more on the questions that Senator O'Neill raised in relation to AMSA, if you'd like us to clarify before you ask your next question.

ACTING CHAIR: That would be great, thank you.

Senator Ayres: We were all just so excited about this section starting that we just forgot to do a few things!

Ms McCarrey: My apologies! First and foremost, can I say that the health and safety of the workforce that is moving on and off the platform are the responsibility of NOPSEMA. At times, jurisdictions can be a little bit grey, but, first and foremost, our job is to make sure that the workforce is actually protected. Regarding a safety case that an operating facility uses, if the safety case actually covers the use of that flotilla, then, yes, that becomes part of our jurisdiction as well. If that moves off, particularly heading back into the coast or back into the port, it becomes a vessel and then it's definitely under AMSA's jurisdiction—once it moves off and becomes a vessel and it's on the move.

ACTING CHAIR: Thank you, Ms McCarrey. That's quite helpful. Is it correct to say that on 15 May NOPSEMA inspectors were to land on the flotilla due to there being a helideck on the flotilla with accommodation facilities, but that was not the purpose of the visit? It was in fact to inspect Woodside's Pluto platform?

Mr O'Keeffe: That's correct. There is a helideck on both the Pluto platform and on the flotilla. At the time, because the flotilla was not connected, it pulled away for operational weather reasons. Our inspectors went out to the flotilla and landed there and did their inspection from there.

Senator O'NEILL: Did the NOPSEMA inspectors inspect the Woodside Pluto platform during the visit?

Mr O'Keeffe: They were not able to access the Pluto platform, but the inspection is still ongoing and it covers both the workforce and the Pluto platform. But they didn't physically access the Pluto platform at that time.

Senator O'NEILL: And you say that was due to weather.

Mr O'Keeffe: It was due to the vessel being pulled away from the platform for operational reasons, which were attributable to weather.

Senator O'NEILL: So, to be clear, the NOPSEMA inspectors did not set foot on the Woodside Pluto platform during that visit?

Mr O'Keeffe: Not at that time, no.

Senator O'NEILL: Are you aware of a complaint from the Offshore Alliance about NOPSEMA's visit to the flotilla on that date of 15 May?

Mr O'Keeffe: I am aware of a complaint relating to why the vessel was not attached to the platform for that particular period of time, and we are investigating that complaint, as we do with all complaints.

Senator O'NEILL: Can you tell the committee what the union's complaint was?

Mr O'Keeffe: It related to why the vessel was not attached to the platform for the particular time that we happened to be doing our offshore inspection. It was attributable to weather operational reasons. We've started an investigation to determine whether that was consistent with the information we received at the time and consistent with the way the vessel has operated in the past.

Senator O'NEILL: So, 'attributable'—is that in your view, or is it some independent person's view that it was attributable?

Mr O'Keeffe: We will investigate. The investigation will determine whether it was reasonable for the vessel to be detached from there and, if so, why that was—because it is designed to detach, in the case of weather—and whether that is consistent with how the vessel has been used to date. In other words, has it been detached at the appropriate time and reattached at appropriate times? That's subject to investigation.

Senator O'NEILL: Again, you've mentioned weather. Is that the reason that you're speaking of this situation occurring?

Mr O'Keeffe: I've explained the technical issues. Because of the size of the vessel, in certain weather conditions involving the currents and wind, it could push the vessel up against the platform in the event it lost power. That's called drift-on. If it was on the other side of the platform in that weather condition and the power failed, it would move away to a place of safety. This is how the safety is designed to enable it not to impact the platform, and for the safety of the people involved, in the event of a power failure.

Senator O'NEILL: I understand the premise that you're putting in general, but is NOPSEMA aware that the flotilla was disconnected from the Pluto platform on 15 May prior to NOPSEMA inspectors arriving, at which point it was taken to the 500-metre exclusion zone and remained there for the entire three-day period while NOPSEMA inspectors remained on board?

ACTING CHAIR: Last question.

Mr O'Keeffe: I'm aware of that. And the nature of the complaint points to a potential coincidence that the line by the time we were there—

Senator O'NEILL: Ah, coincidence.

Mr O'Keeffe: And that's why we are now looking into the nature of the complaint, as we do with all complaints, to find out whether that is a coincidence or not.

ACTING CHAIR: I'm going to need to rotate the call.

Senator O'NEILL: Thank you.

ACTING CHAIR: Senator Whish-Wilson.

Senator WHISH-WILSON: I note, from the details I got off the ASIC website, that they've signed an MOU with NOPSEMA relating to reporting of company financials on their balance sheet. I've read the summary on their website. It says:

By working together under the terms of the MoU, ASIC and NOPSEMA will be able to share information to assist each other in achieving their respective objectives.

My question is: what prompted this MOU with ASIC?

Ms McCarrey: First, I'll make the point that we actually have MOUs with a number of organisations and particularly with other Commonwealth entities or statutory authorities where we have a slight overlap in our work, so it's not uncommon. We actually also have an MOU with the marine parks organisation because we have certain overlaps in that area as well. Part of the information that we're able to put into ASIC is where each of the facilities is at, particularly perhaps in relation to planning around decommissioning.

Senator WHISH-WILSON: My question was: what prompted the MOU?

Mr Grebe: Senator, I can take that one. The MOU is part of our compliance strategy that we've had established for several years now to improve decommissioning outcomes for offshore petroleum. One of the aspects there is to cooperate with other agencies to achieve the decommissioning outcomes that we've identified and set targets for in that strategy. So it's a planned set of actions that we're taking. We also share information related to decommissioning compliance with NOPTA, the titles administrator, for example.

Senator WHISH-WILSON: For how long has this MOU been under discussion?

Mr Grebe: The MOU itself has been under discussion for, I'd say, a year or so. The MOU essentially formalises the communication pathways and makes more transparent how we intend to work together. But NOPSEMA has exchanged information using information-sharing powers under our act, the OPGGS Act, on other occasions, and for many years we have met and engaged with ASIC, as we do with other Commonwealth organisations where we have overlapping or coincidental roles that intersect with offshore petroleum, both on decommissioning and on other subjects.

Senator WHISH-WILSON: ASIC is responsible for ensuring that a provision for the cost of obligations is appropriately recorded in the financial report of the company. They check in with you as to whether, for example, the liability is matched by your understanding of the cost of remediation, or do you liaise with them?

Mr Grebe: We don't have a role in cost calculating the decommissioning. Our role is obviously either to agree for removal activities or to approve deviation from the base case as required in the legislation for full removal. So, essentially, the nature of this exchange of information is clarifying whether there are approvals in place for deviating from full removal.

Senator WHISH-WILSON: This will be my last question on this. Were there any anomalies that you were aware of in terms of companies putting that liability information into their balance sheet? Is that why this has come about?

Mr Grebe: That's the domain of ASIC and is not really something we could comment on, Senator. The cooperation is about us sharing information about our regulatory roles with ASIC.

Senator WHISH-WILSON: I will go to other quick lines of questioning. Both relate to your heightened focus, a term you used in your letter to me a while back on decommissioning. Could I get an update on the status of the RTM, the riser turret mooring? Is it Nganhurra—the one we discussed at last estimates? Could you give us an update on that?

Mr Grebe: Yes, Senator. That was good pronunciation. The RTM continues to remain on location. I think at last estimates we mentioned that just before estimates there had been remedial works to increase the draft and maintain the buoyancy. NOPSEMA is currently assessing a revision to the environment plan to provide for the removal by heavy lift vessel of the riser turret mooring and associated subsea infrastructure. I also note that there

are works going on with wells currently in the field, with a rig plugging and closing off wells, as part of the general direction that NOPSEMA issued, and there is continued compliance oversight and engagement to ensure timely progress by Woodside in complying with the general directions—two of them—and the improvement notices in place for the facility.

Senator WHISH-WILSON: There's not likely to be any delays to the time line that you've provided for them to remove that?

Mr Grebe: What I would say is that we've issued a general direction that identifies an end date that's achievable. The environment plan that's in force provides for managing environmental impacts and risks while it remains on location prior to removal. I note recent media reports that Woodside issued contracts for award of facilities for the removal of, among others, the Nganhurra RTM. We haven't seen information that suggests those time frames can't be met.

Senator WHISH-WILSON: Once it's removed, what is NOPSEMA's understanding and expectation of what will happen to those assets?

Mr Grebe: That's something we're considering as part of the environment plan assessment. The original proposal was for recycling and disposal on shore, and we expect that to continue to be the pathway.

Senator WHISH-WILSON: Where do I get more information about that?

Mr Grebe: The environment regulations require us to publish the environment plan for the activity once it's accepted.

Senator WHISH-WILSON: I might put some questions on notice to you to get some more information on that. At the last estimates you also mentioned you were investigating potential breaches of the OPGGS Act in relation to this and you were investigating Woodside. What's the status of that?

Mr Grebe: For the Nganhurra RTM?

Senator WHISH-WILSON: Yes.

Mr Grebe: That investigation has continued. We've been looking at a range of different offences that could be there and planning for the investigation, so it remains on foot.

Senator WHISH-WILSON: Any idea on time line for that?

Mr Grebe: No.

Senator WHISH-WILSON: You don't know when it will be completed?

Mr Grebe: No, not at this point. Sorry.

Senator WHISH-WILSON: I know you can't comment on an investigation. In relation to another riser turret, in the Griffin field, you've probably seen that Greenpeace has provided some footage of a sunken riser turret. I understand that happened in 2013. Were NOPSEMA aware of that sinking back in 2013, and what actions were taken at the time?

Mr Grebe: Yes, we were aware. As a result of that, a revision to the environment plan was required and is in force. That provides for ongoing monitoring until the removal of the riser turret mooring.

Senator WHISH-WILSON: So you're currently monitoring that—

Mr Grebe: Yes. I forgot to mention—sorry to cut you off—it's also subject to a general direction for its removal.

Senator WHISH-WILSON: Are you expecting that to be removed by 2024?

Mr Grebe: Yes.

Senator WHISH-WILSON: And you will also have the environment plan about what happens to it once it's been removed?

Mr Grebe: Yes, correct.

Senator WHISH-WILSON: Is it being monitored under the water? Greenpeace said it was obviously decaying, but Woodside have said that they don't believe that's an issue. Do you send divers down there or submersibles to check it out occasionally? What's your role in regard to that?

Mr Grebe: We do consider the integrity of the riser turret mooring. The riser turret mooring is designed to be almost entirely submerged, in terms of its overall size, and so it would be expected to be in the marine environment and subject to some levels of corrosion. The current environment plan in force provides for ensuring that it's maintained and is able to be removed.

Senator WHISH-WILSON: Are there any other ones that are under the water that have sunk as well that we don't know about?

Mr Grebe: Yes. We've also issued a general direction for the removal of the Stybarrow mooring—I'm not sure if it's called a riser turret mooring or a single point mooring. The facility departed, and that riser is also requiring removal.

Senator WHISH-WILSON: Who owns that?

ACTING CHAIR: We're going to rotate the call, Senator Whish-Wilson.

Senator WHISH-WILSON: Could I just get an answer to that, please?

ACTING CHAIR: Sure.

Mr Grebe: It was BHP. It's now Woodside Energy.

Senator WHISH-WILSON: Thank you. I'll put some more questions on notice.

ACTING CHAIR: Thank you, Senator Whish-Wilson. Senator McDonald.

Senator McDONALD: Has the change in administrative arrangements, specifically in relation to the movement of CCUS to the Department of Climate Change, Energy, the Environment and Water, made policymaking, regulations or approval processes more cumbersome or difficult? Has it changed? Perhaps it's gotten better; I don't know.

Mr Grebe: It hasn't changed for us. We are still operating under the environment regulations and the greenhouse gas storage regulations under the OPGGS regime, so that hasn't changed. We still engage with both DISR and DCCEEW on CCUS cooperatively.

Senator McDONALD: On average, how long were approval processes for CCUS projects or applications under the previous administrative arrangements?

Mr Grebe: There weren't any applications for CCUS injection operations under the previous arrangements, and we don't have any applications under the current ones. There are a number of proponents that are in the exploration stage, but they're prior to receiving an injection licence, at which point they would start accessing approvals—at least for our part of the legislative framework.

Senator McDONALD: Has the change in arrangements impacted any other NOPSEMA processes?

Mr Grebe: No.

Ms McCarrey: No, not that we're aware of.

Senator McDONALD: What are the most pressing issues facing the offshore CCUS industry in Australia currently?

Mr Grebe: For our jurisdiction and our responsibilities?

Senator McDONALD: Yes.

Mr Grebe: I think it's still in the early stages. The main challenges currently are probably navigating the consultation requirements for environment plans for the exploration activities, but they're on foot, and, similar to the petroleum projects that impact the court's decision, they're progressing through those. And there are a number of activities at that exploration stage under greenhouse assessment permits.

Senator McDONALD: Does NOPSEMA have recommendations or proposals to alleviate some of these pressures?

Mr Grebe: There are always opportunities for streamlining, be it administrative or other, and we're participating, in combination with DISR and DCCEEW, in how the mapping of the current regulatory requirements that are in place stand. As part of that, it's a matter for the department, for DCCEEW, as to whether they make changes or not.

Mr O'Keefe: In addition, we're building our technical capabilities and capacities, staying in touch with the marketplace, looking at potential projects and keeping abreast of international developments to the best of our abilities so that we're in a position to regulate the projects as and when they come through.

Senator McDONALD: I was going to ask you if any of the issues are able to be supported or aided by NOPSEMA, and I think that was the answer, particularly following what's happening offshore. That's terrific. Thank you, Acting Chair.

ACTING CHAIR: We'll go to Senator O'Neill.

Senator O'NEILL: Just getting back to the coincidence of you being out on the platform, as we were discussing a little while ago, are you aware that on 15 May, just before your arrival, the 500-metre exclusion zone was activated and the vessel was maintained there for the entire three days while NOPSEMA inspectors remained on board?

Mr O'Keeffe: The coincidence was in the form of the complaint, not my assumptions. The events that you're talking about will all be subject to the overall investigation. We'll be looking at all the circumstances sitting around that, so I can't comment on it at the moment.

Senator O'NEILL: Yes, I understand that. I'm just trying to get clarity. You went out there expecting to go and look at the platform, but you didn't land on the platform, did you?

Mr O'Keeffe: No, but an inspection encompasses a whole range of things, and a large part of that is to engage with the workforce. In every single inspection we do, we meet with the workforce and the health and safety representatives. They will give us insights into how the workforce is operating and any particular risks that are sitting out there. So there are a range of things that we do apart from the physical equipment—looking at how they're organised, how they're structured and how they're responding to the particular events that they're exposed to.

Senator O'NEILL: But the purpose of the visit was to inspect Woodside's Pluto platform.

Mr O'Keeffe: And the work that's done on the platform by the workforce.

Senator O'NEILL: Yes, but part of it was to inspect the platform. Are you aware that, when NOPSEMA inspectors flew off the floatel three days after arriving, the floatel then went alongside the Pluto platform and reconnected with that within a matter of hours?

Mr O'Keeffe: Again, I'm aware of that, and that is all part of what we'll be looking at overall to determine the nature of the activities happening at that time.

Senator O'NEILL: Is it at all unusual to you, Mr O'Keeffe or any of the officials who are here, that a company would choose to disconnect an accommodation vessel, where there were 120 people on board, at a cost of approximately half a million dollars per day—a decision that would have had the entire project sitting idle for three days?

Mr O'Keeffe: It'd be inappropriate for me to speculate on what the causes were. We have to do an investigation, and, from that, we'll determine objectively what happened.

Senator O'NEILL: What explanation did Woodside provide to NOPSEMA for the floatel not being alongside the platform for three days?

Mr O'Keeffe: That's part of the investigation that we've launched into determining the circumstances around the vessel.

Senator O'NEILL: But you have nothing to tell me? You have not found out anything at all from Woodside at this point in time?

Mr O'Keeffe: I personally am not aware. I know that we're engaging with Woodside and seeking results.

Senator O'NEILL: Okay. Is anyone at the table able to tell me what Woodside said about why you couldn't get onto the platform?

Mr O'Keeffe: Not at this stage, because we are continuing our enquiries.

Senator O'NEILL: Ms McCarrey, you have no idea?

Ms McCarrey: No, Senator. What we do is we take all complaints very seriously. I think what Mr O'Keeffe is explaining is, once we receive a complaint and we think that the circumstances are unusual, we launch an investigation, which is exactly what we have done in this case. That investigation is underway, which will include talking to witnesses and actually getting statements from people as part of that investigation.

Senator O'NEILL: But it's pretty unusual to get out there and suddenly the vessel disappears—it's not connected—and, the minute your helicopter flies off, it's reconnected. That does not seem—

Ms McCarrey: We've taken the complaints seriously and we have launched a serious investigation into it at this stage.

Senator O'NEILL: Could you tell me if NOPSEMA inspectors asked to be flown by helicopter from the floatel to the Pluto platform during that three-day visit?

Mr O'Keeffe: I don't have that information. I can take that on notice.

Senator O'NEILL: Is it normal practice for NOPSEMA inspectors visiting offshore facilities to not actually set foot on the facility that they've gone to inspect?

Mr O'Keefe: No. It's quite rare, but this is one occasion where there were there were 150 people out at that time on the platform on the floatel. That gave them an opportunity to do at least some elements of the inspection. But it's unusual, yes.

Senator O'NEILL: It is, especially seeing as there was a device, called a helicopter, that they could have lifted off the floatel and landed on the platform, which was approximate to it.

Mr O'Keefe: I'm sure that will all form part of the overall investigation to determine what could be done, what was done and what wasn't done.

Senator O'NEILL: At this point in time, you have no explanation to give me about why inspectors didn't set foot on the Pluto platform during the three days of inspection that commenced on 15 May?

ACTING CHAIR: Senator O'Neill, with all due respect, I think the answer has been given of times that there's an investigation underway. I wonder if you could tailor to that, if you wouldn't mind.

Senator O'NEILL: You've got no further information for me, Mr O'Keefe?

Mr O'Keefe: I'm not in a position to give you any further information until we look at the investigation objectively and gather up the information. That will be produced in a report that will go back to the workforce.

Senator O'NEILL: With respect, Mr O'Keefe, I'm not asking you for a finding. I'm simply asking for you to put on the record the information you know at this point in time.

Mr O'Keefe: The information I have at this point in time is that I know we received a complaint, as we receive a number of complaints. We take each one seriously. We launched an investigation to find out what the facts are behind it, and that is the information that I have at this point in time. I do not know if there was a request made to fly a helicopter to the Pluto platform. I don't know that. I don't know the circumstances other than the fact that there appears to have been, in the complaint, a coincidence in relation to the timing, and we will be looking into that. If it turns out that our inspectors have been obstructed in any way, or any breach otherwise, we will take action appropriately. But, at this point in time, I can't speculate at all on what the causes were behind it.

Senator O'NEILL: Okay. Well let's hope you find that there was no obstruction, but let me just ask you: if it is found that there was an obstruction, rather than just a coincidence, what steps would NOPSEMA take if you were satisfied that Woodside had actually interfered with NOPSEMA inspectors being able to effectively do their job and get entry to the facility that they went to inspect?

Mr O'Keefe: Again, that would be subject to what we find out and the facts sitting behind it. If necessary, we will take action.

Senator O'NEILL: What steps could you take under legislation?

Mr O'Keefe: It's an offence to obstruct an inspector.

Senator O'NEILL: Okay. What are the consequences of committing such an offence?

Ms McCarrey: We'd have to get specific information on this penalty back to you on notice, if we can.

Senator O'NEILL: Thank you. If you find it was just a coincidence and it was very unfortunate weather that cleared within a couple of hours of the helicopter flying off after waiting for three days, that's one thing. If you find that there was interference, what's the scale of penalty that could be applied?

Ms McCarrey: I don't have any detail about the specific penalties at this stage. As an investigation unfolds, depending on the outcome of that investigation, there are a range of different regulatory tools available to us. Obviously, the most serious form of regulatory action is a prosecution. That decision is not made by us. We brief CDPP and they ultimately make a decision. That's why a thorough investigation of any incident needs to be undertaken so that we have all the information at hand before we can make a decision about any regulatory action at all.

Senator O'NEILL: I look forward to getting some further information from you.

ACTING CHAIR: Thank you very much for appearing today. We will now release you.

**Department of Industry, Science and Resources
Australian Nuclear Science and Technology Organisation**

[21:40]

ACTING CHAIR: We will ask for officers related to program 1.4, Department of Industry, Science and Resources nuclear powered submarine program, to come to the table, and also the Australian Radioactive Waste

Agency and the Australian Nuclear Science and Technology Organisation. Ms Quinn, would you like to locate us in program 1.4? Given this is a new experience, it would be great if you could step us through what 1.4 is and how we're going to proceed.

Ms Quinn: I am happy to, Chair. In this budget, there's been the addition of program 1.4 into this portfolio's programs—both DISR's programs and the Australian Nuclear Science and Technology Organisation's programs. This is common across departments across the system in response to the spending on the nuclear powered submarine. The Department of Finance has created, with the departments and agencies, program measures and definitions so that they can pull together all the spending that's happening on the nuclear powered submarine program. For DISR that becomes program 1.4. For ANSTO it becomes program 2. This is to allow the government to track the overall spending, which is spread in different parts. Both the Australian Radioactive Waste Agency and ANSTO receive funding in this budget to provide expert advice, for their different areas of responsibility, to the Department of Defence. So that's the long and short of it. You will note that, for other estimates processes, departments such as the Attorney-General's Department and the Department of Foreign Affairs and Trade had additional programs that were also titled 'nuclear powered submarine', so it's a new addition across the system.

ACTING CHAIR: Great. Thank you. Do you have a sense of the demarcation? I know that as a new program it has various elements. Where are the lines drawn, effectively?

Ms Quinn: Roughly—and my colleagues will correct me—the Radioactive Waste Agency clearly has expertise in waste management, and it will be working with the Department of Defence on those issues. It's nuclear science capability that is ANSTO's expert capability. If you'd like further information on what sort of advice they'll be providing to the Department of Defence, I can defer to my colleagues if that is the committee's desire.

ACTING CHAIR: That's great. Thank you. Senator O'Neill, I believe you have some opening questions.

Senator O'NEILL: In this new context, just to get it on the record, could you elaborate on the actual role that ANSTO is going to play in this nuclear powered submarine program?

Mr Jenkinson: I'll ask Dr Apperley to talk about that, if I may.

Senator O'NEILL: Thank you.

Dr Apperley: ANSTO has been providing support to the Department of Defence, specifically to the Nuclear Powered Submarine Task Force, since the announcement was made in September 2021. We have been primarily drawing on our expertise of 70 years in operating nuclear facilities in Australia and a whole range of science and technology matters and essentially supporting the task force as they're developing the optimal pathway, which they announced early in March, and particularly feeding into—

Senator O'NEILL: Sorry, I couldn't quite hear your response then. You said something specific happened in March. Could you just repeat that?

Dr Apperley: Our role was to support the task force as they were developing the optimal pathway for the establishment of a nuclear-powered submarine capability. That was announced in the tri-leader announcement in early March. I was just saying it will provide input into the development of the optimal pathway, primarily applying our science and technology capabilities around questions on nuclear stewardship.

Senator O'NEILL: On nuclear stewardship?

Dr Apperley: Yes.

Senator O'NEILL: Okay, fantastic. When you're working with another entity, especially if you're in the nuclear field, you need to be very clear about who's doing what. So could you give me a sense of the demarcation of responsibilities between the Department of Defence and ANSTO with regard to the program?

Dr Apperley: Sure. When the Department of Defence established a nuclear-powered submarine task force, they actually invited and requested the engagement of a number of agencies from across government to support them in that endeavour to develop the optimal pathway. The work that ANSTO was specifically asked to do was to bring our experience of nuclear science and technology into a whole range of considerations they had around nuclear stewardship. That covers things like our own experience of environmental monitoring and emergency preparedness and response, the development of health physics and health monitoring, providing support to the engineering work and what's required to build nuclear-aided infrastructure. We were asked about our operational experience of working with a regulator. We were also asked about our own experience in managing waste. Of course, some of these areas had been bumped up by other agencies who were also supporting the task force.

Senator O'NEILL: So it's fair to say that you're pretty clear about what your role is in the program as it moves forward? That has been clearly established?

Dr Apperley: Yes, it has, as reflected in the allocation of the funding we've received for the next couple of years to continue that support.

Senator O'NEILL: For your other role, which you're more known for at ANSTO, can I just thank you; I know that rare cancers are being considered right now. On behalf of all the families who are experiencing cancer, I know how important it is that they have the option of radiotherapy and that you've been providing that service for the nation for a very long period of time.

Dr Apperley: Thank you. I appreciate the feeling.

Senator O'NEILL: You're welcome.

ACTING CHAIR: Senator McDonald?

Senator McDONALD: I will start with the department. This is obviously a new program. How does the department propose to manage the future radioactive waste brought on by the nuclear-powered submarine program?

Ms Quinn: I will pass to my colleague to answer that.

Mr Usher: As part of the announcement made about the nuclear-powered submarine program, the Department of Defence said that they would make safety, security and nuclear stewardship the highest priority and that Australia would be taking responsibility for all of the radioactive waste that would be produced from a future nuclear-powered submarine program. The Department of Defence is taking the lead on all of that waste. Operational waste and waste that will arise as part of that program will be stored on Defence land, pending the availability of permanent waste disposal routes.

Senator McDONALD: Are there time lines available? When is the latest that a high-level waste facility would be needed?

Mr Usher: I think those questions should be asked of the Department of Defence.

Senator McDONALD: Okay. Has the Australian Radioactive Waste Agency been consulted on the process and future management of waste produced by nuclear submarines? I'm actually asking the department this; this is not a question to ARWA.

Ms Quinn: ARWA is the department.

Senator McDONALD: Oh, I'm sorry; I have them on a separate page.

Ms Quinn: ARWA is a division of the department.

Mr Usher: Yes, it has. ARWA has provided and will continue to support advice, technical advice and related advice in terms of management of radioactive waste to the task force. We've been doing that over the last 18 months or so and anticipate doing that going forward as well.

Senator McDONALD: My next question is: will ARWA be responsible for managing this future waste? But I think you've said it's the Department of Defence.

Ms Quinn: That's right. In some ways, you could think of this as a transition, because of the expertise held in ARWA, in terms of supporting the expertise. The Department of Defence will have its own regulatory architecture and its own capability, and it will be building that over time. The funding in this budget is about supplementing the funding for ARWA to be able to build that capability in a smooth and sensible way.

Senator McDONALD: Of the additional \$304.7 million allocated to ARWA, will any be spent on the needs of future high-level waste management because of these submarines? Again, I think you're saying to me that, no, that's all Defence.

Ms Quinn: Only the funding that is specifically allocated under program 1.4, which is two-year funding for ARWA to provide technical assistance to the Department of Defence, is related to the submarine program. The other funding received in the budget goes to sustainable funding for the organisation for facilities for low-level and medium-level waste, which has been the responsibility of ARWA to this point. The \$304.5 million over seven years is around their ability to continue to manage the national inventory of waste that exists now and the safe disposal and storage of waste and to establish secure and safe disposal pathways. It is not related to the nuclear submarine program at all.

Senator McDONALD: I note that there has not yet been a bill passed formally creating ARWA. Does this impact your operations?

Mr Usher: We're focused on ARWA's scope of work. We have clarity on that scope of work. We're here to ensure that radioactive waste is managed safely and securely across all of Australia. We're here to advance the National Radioactive Waste Management Facility for low-level waste disposal, and we're also here to establish an intermediate-level waste disposal pathway. That's what our focus is on. The governance arrangements for ARWA are a matter for government.

Senator McDONALD: So all of your operations remain within the department currently. Minister, the coalition introduced the Australian Radioactive Waste Agency Bill 2022 last year. It lapsed at the dissolution of parliament. Why has the government not introduced or reintroduced a bill to set up the entity? It's been 12 months now.

Senator Ayres: All I can say at this stage is that the focus has been on ensuring that the agency is properly funded. It is a decision for government when legislation is introduced, and I don't have anything further to add on that question. It is, I think, important—and it's the reason this section is called out separately—that the role of both of these organisations is not affected by the nuclear submarine program. What they are doing is providing early advice. The scope for ARWA does not change as a result of any of this. It's simply making sure that we're being very transparent about funding and who's engaged across government.

Senator McDONALD: So there's the long-term management of radioactive waste; the nuclear submarines will be handled by Defence; and you believe that, with the AUKUS agreement, that's enough structure for this program.

Senator Ayres: Government will make decisions about exactly what the governance arrangements are going to be around those questions. At this very, very early stage, all we are saying here is that both ANSTO and ARWA have been engaged on both of those questions. As somebody over here said, some of them were engaged as early as when the optimal path program was being developed.

Senator McDONALD: Is the increased funding all just rolled into the department, as opposed to being put into a separate agency?

Senator Ayres: There is a specific amount here that I think has been allocated particularly for ARWA to engage on these issues—the overall, larger funding amount, unrelated to the submarine program.

Ms Quinn: In terms of the operation of ARWA as part of the department, I mentioned earlier that there are quite a few different governance models within the portfolio. The funding is clearly articulated in our budget process, going against the Australian Radioactive Waste Agency. There are clear programs and activities in that that are funded separately. There are support systems from our corporate area that support the operations of ARWA, as they support other entities within the structure. The nuclear submarine program is separate again, because that's separately funded for the support to Defence. We do very carefully weigh things up and separate them so we can track them over time.

Senator McDONALD: Mr Usher, what are ARWA's current staffing numbers?

Mr Usher: We have 56 people, as of the end of March this year.

Senator McDONALD: Can you provide a breakdown by APS bands of those 56?

Mr Usher: I'd be happy to take that on notice.

Senator McDONALD: Thank you.

Senator BARBARA POCOCK: Thanks, all, for being here. On 18 May, I submitted a question on notice in relation to site characterisation works currently underway at Napandee and the spend on the two legal cases. Have you got the answers to table here?

Mr Usher: Yes, we received the questions on notice. Those are going through the formal process at the moment, but I can provide you with answers here.

Senator BARBARA POCOCK: Are you going to give them to me in writing? There's a long set of questions.

Mr Usher: Which would you prefer?

Senator BARBARA POCOCK: It might save time if you gave them to me in a document. I'm just very conscious of our time.

Mr Usher: That process is underway. You'll have those shortly.

Senator BARBARA POCOCK: Tonight?

Mr Usher: No, sorry; not tonight.

Senator BARBARA POCOCK: If I ask you the questions verbally, you'll give me the answers, but you can't give me a document with the answers—is that what you're saying? It's three weeks in.

Ms Quinn: Formally, when we take something on notice, we're taking it on notice on behalf of the government. There is a process we go through where it's submitted formally to the committee et cetera. We have information available, in terms of the numbers you asked about earlier today that we can provide now. The question is do you—

Senator BARBARA POCOCK: Let's go to a key item; I will wait a few more days for the full answer. What's been the entire legal spend of the Commonwealth regarding work on the National Radioactive Waste Management Facility since 2017? That's an update on the table provided in part 1 of your previous answer to question on notice 532.

Mr Usher: The total legal costs for ARWA related legal work from 1 January 2017 to 31 March 2023 are \$13,083,132.

Senator BARBARA POCOCK: You mentioned ARWA. Was that the entire legal spend of the Commonwealth in relation to the whole site project—all aspects of the two legal cases?

Mr Usher: Those numbers include the external spend.

Senator BARBARA POCOCK: You've previously given me an estimate of the internal allocation of resources as well.

Mr Usher: Yes. ARWA didn't have a dedicated legal function before January 2021. Before this, ARWA related legal work was done by the internal department legal staff, who worked across various matters related to the department. The figures we've provided are estimates of the salary of the internal legal team employed in that period.

Senator BARBARA POCOCK: And what is that?

Mr Usher: That was \$751,724.

Senator BARBARA POCOCK: I look forward to receiving all that in writing shortly. How much compensation did the Commonwealth of Australia pay to Jeff Baldock for the acquisition of the Napandee property in order to facilitate the construction of the proposed National Radioactive Waste Management Facility?

Mr Usher: The settlement deed which discharged the Commonwealth's liability following the declaration of the site at Napandee is subject to a confidentiality agreement. But I can confirm that the agreement was consistent with the government's nomination guidelines, which indicated the government would pay four times the land value subject to independent valuations; I can confirm that that's the case.

Senator BARBARA POCOCK: So the Commonwealth made an independent valuation and was willing to pay four times above that. Can you give me an indication of what the multiplier was? Was it more than four times?

Mr Usher: As I referred to in my previous answer, it was consistent with the government's nomination guidelines.

Senator BARBARA POCOCK: So it's confidential. So the local community, who are very eager to know what the Commonwealth spent to acquire this farm, cannot know?

Mr Usher: The agreement was subject to a confidentiality agreement.

Senator BARBARA POCOCK: For how long is it confidential?

Mr Usher: My understanding is it's confidential.

Senator BARBARA POCOCK: Till we're all dead. Thanks for your answer. I'm sure we will come back to that; I know there is very strong interest in that.

To the department of industry: ARWA remains, as we have heard, as Senator McDonald's questioning has shown, a unit of the department. The minister has indicated that, at this stage, that's the way it's going to stay, and you're not giving us an indication of what's going to happen. Do you think it's appropriate that the National Radioactive Waste Management Facility process is advancing without ARWA having its own agency status? Has the news that ARWA will be tasked with assisting in the search for an AUKUS related high-level nuclear waste dump or disposal site seen any movement—that's a serious shift in its focus—around ARWA's status?

Ms Quinn: I might just clarify: that characterisation of ARWA's role in the advice to Defence is not one we recognised. Defence will take responsibility for the waste out of the nuclear submarine. ARWA isn't tasked with doing anything beyond the low-level and intermediate pathways. That hasn't changed as a result of the funding to provide technical support to Defence.

Senator BARBARA POCOCK: So ARWA will play no role in assisting Defence to think about or to find, as has been indicated it will be engaged in, in relation to high-level nuclear waste and the site appropriate? ARWA will play no role in that?

Mr Usher: We will be providing a role in that. We have been allocated separate funding, as we discussed earlier, to provide technical support to the Department of Defence in relation to their work on radioactive waste management.

Ms Quinn: It's technical support. All the decision-making is in the Department of Defence. Just to be clear here: as I mentioned, this is transition assistance because the expertise sits in ARWA. But the decision-making and all the aspects of the management of the submarine program, including waste, sit with the Department of Defence. I just want to be very clear about the separation of roles here.

Senator BARBARA POCOCK: You are assisting Defence?

Ms Quinn: With technical support.

Mr Usher: We are providing technical support.

Senator BARBARA POCOCK: And you have an allocation in addition to the \$304.7 million. How much is that?

Mr Usher: It's \$5.2 million.

Ms Quinn: Over two years.

Senator BARBARA POCOCK: Senator McDonald was asking questions about the \$304.7 million. I must say: I'm very unclear on exactly what that money is for.

Ms Quinn: I draw your attention to page 166 of Budget Paper No. 2, which sets out the funding that was received in this budget. We can clarify—

Senator BARBARA POCOCK: I can look that up, thank you. What discussions has the department been engaged in around the potential future management of the AUKUS related waste at Kimba? Has there been a discussion at Kimba at all in relation to that waste? If so, who with, and what was discussed?

Mr Usher: As I mentioned earlier, the Department of Defence will take responsibility for the management of any waste arising from the nuclear powered submarine program. That will be pending the availability of permanent disposal routes. That is the case.

Ms Quinn: Just to rephrase it another way: the advent of the nuclear submarine has not changed the consideration of what will be kept at Kimba. They are completely separate processes in terms of location or types of waste. It is two separate processes: one for nuclear submarines provided by the Department of Defence, a previously announced program and policy related to Australian waste and ARWA, and the Kimba location.

Senator BARBARA POCOCK: Given the role you are playing in relation to AUKUS—working alongside Defence with technical support, as I hear—what interaction, if any, has ARWA had with PwC or their AUKUS services hub?

Mr Usher: I'm not aware of any interaction that ARWA has had with PwC.

Senator BARBARA POCOCK: At all?

Ms Quinn: We can take it on notice to double-check.

Mr Usher: I'm not aware of anything in relation to the AUKUS program, but we can confirm that outside.

Senator BARBARA POCOCK: I'm interested in any engagement with PwC, including specifically the subset of their AUKUS hub.

Ms Quinn: Are you interested in any work that PwC might have done for ARWA within the program in DISR, or are you interested in work with Defence?

Senator BARBARA POCOCK: I've asked the question in relation to ARWA, but, since you're taking it on notice, can you also include any interaction the industry department has had with that hub.

Mr Usher: Can I confirm: ARWA has no live contracts with PwC. We had a contract for \$136,000, which was a consultancy contract with PwC, that was completed in March 2022.

Senator BARBARA POCOCK: That was a contract by ARWA?

Mr Usher: That was a contract between ARWA and PwC.

Senator BARBARA POCOCK: There is a contract question arising from the fresh information we have received. Do you want us to pursue that now?

ACTING CHAIR: We'll rotate. You can gather your thoughts and then go again.

Senator McDONALD: Back to where we were before, Mr Usher: you were providing me with a breakdown of the APS bands of the 56 staff on board at the end of March. Has ARWA filled all its available positions?

Mr Usher: Following the budget announcement in May this year, ARWA has received funding moving forward through the forward estimates. We are anticipating and requiring further recruitment as ARWA grows its technical capability and capacity, in order for us to fulfil our obligations—that's to provide advice to waste owners, waste producers and government for all matters radioactive waste; to deliver the licensing and the business case for the National Radioactive Waste Management Facility; and to start the process to establish an intermediate-level waste disposal pathway.

Senator McDONALD: Are those positions being advertised?

Mr Usher: The first tranche of those positions was advertised earlier this week.

Senator McDONALD: So you'd hope to have them filled in the next two or three months? How many have you advertised for in the first tranche?

Mr Usher: I could take that on notice.

Senator McDONALD: Terrific, thank you. I would like to know how many roles you are expecting to advertise and fill in this first tranche, and how many over the longer term. Has there been much staff turnover since 22 May 2023?

Ms Quinn: May 2023?

Senator McDONALD: I know, it doesn't sound right, does it? I think it's May 2022.

Mr Usher: Staff turnover in the last 12 months? We have recruited a number of people, and the size of ARWA has grown quite substantially in that period. I think, as with any organisation, there are changes as people look to develop their careers in other ways; I think that's normal. We're working very hard on making ARWA a good and exciting place to work. We've got important work, and we believe we're an attractive place for people to come and work.

Senator McDONALD: That is terrific. Would you mind, just to satisfy my curiosity, providing me with the number of people who have left during that period, perhaps the number of people at the beginning of that period, the number of people who have left during that time, and the number of people you have recruited during that time—without the new tranche of staff—so that I can have a sense, proportionally, if your staff turnover has been similar to what it is in other parts of the Public Service.

Mr Usher: Yes, we can take that. No problem.

Senator McDONALD: I think Senator Pocock's questions have answered this question on an outline of what the \$304.5 million in funding will be used for. Does ARWA have the funding allocations outside of the forwards? I would note that approximately \$272 million of the total radioactive waste funding is outside of the forwards.

Ms Quinn: That's right. The numbers articulated in Budget Paper No. 2 are over seven years, so that includes beyond the forwards. The table identifies the precise breakdown and provides the total number over seven years.

Senator McDONALD: What does ARWA hope to gain out of that additional funding? How will the project change then?

Mr Usher: I think there are a number of things it allows us to do. The first is it allows us to advance to the next stages in the delivery of the National Radioactive Waste Management Facility. This is a very important facility that is looking to consolidate radioactive waste from over 100 locations to relieve waste storage capacity at ANSTO and facilitate their long-term nuclear medicine production. The work we are looking to do in terms of this facility is to continue the site characterisation work; to undertake a number of regulatory approval steps, including environmental impact assessment under DCEEW, and applications for our nuclear site licence, nuclear construction licence, and submission of a final business case to the government's Expenditure Review Committee. That's all very important work.

The second thing we are looking to do is to start work to establish an intermediate level waste disposal pathway. This work will be a long program of work, and a lot of thought needs to be put into how we take international best practice and then reapply that to Australia's geographic and social context. So, as part of the forward estimates work, we're looking to produce an initial business case for the establishment of an ILW disposal pathway. That will look at technical issues and inform some regulatory work. It will also look at siting processes, including public, First Nations and stakeholder consultation, engagement and participation. The third area that our budget covers is to ensure that ARWA remains an enduring entity that can provide waste

management advice to the government, waste owners and waste producers, to ensure that all radioactive waste in Australia is managed safely and securely and to protect generations to come.

Ms Quinn: I might clarify. We've been using the term \$304 million over seven years. That is but one component. The total amount identified in the budget is \$476.4 million, of which there are three components split out, which Mr Usher has just taken you through. I just wanted to clarify it's \$476 million in total, of which there are three components that were just set out by Mr Usher.

Senator McDONALD: Would you mind breaking up those three, given that he's explained them quite thoroughly. Just say 'one, two and three'.

Ms Quinn: Absolutely. It's \$304.5 over seven years for the agency to do the comprehensive national inventory, coordinate safe disposal and storage of radioactive waste and establish the pathways. It's \$162.2 million over seven years related to the facility and the activities there and \$9.7 million over five years for the long-term, disposable, intermediate-level waste. This is on page 166 of Budget Paper No. 2.

Senator McDONALD: Terrific. Thank you. When will Australia exhaust our current storage capacity for low-level waste?

Mr Usher: On that, I would like to pass over to our colleagues in ANSTO. ANSTO is the organisation that is the biggest waste owner and waste generator going forward.

Mr Jenkinson: It's specifically about low-level waste, but maybe I could talk about waste in general. The most pressing need at ANSTO at the moment is that we have some forms of intermediate-level waste that will exceed our current capacity by 2028. However, we have been provided money in previous budgets to build additional capability to store that waste, which will take us into the mid-2030s. Because it's operational waste, and because waste is really relative to the demand from the marketplace for nuclear medicines, we reassess this all the time. The most pressing need was that 2028 date for intermediate-level waste. We will review this every six to 12 months, and that will change based on the demand from the marketplace. But, at the moment, that's our most pressing thing.

Senator McDONALD: Terrific. The money you've been given for the new facility takes you to the mid-2030s. Is that covered off on the mid-level waste management? Or is that still left at 2028, and the mid-2030s just covers you off on the low-level waste?

Mr Jenkinson: No, that takes the intermediate-level waste into the mid-2030s.

Senator McDONALD: This is my last question, then I'll hand over. What is the current time frame for the completion of the National Radioactive Waste Management Facility? Of whom should I ask that?

Mr Usher: The National Radioactive Waste Management Facility will be available after 2030. There are a number of key steps and decisions that need to be made in order to deliver the facility. This is a complex process. It's a first of a kind in Australia, and, even in countries with much larger and more mature nuclear industries than Australia has, licensing and developing these kinds of facilities is challenging. The work that we are doing to develop the safety case, the licensing submissions and the environmental impact statement is the first of a kind in Australia, but it's also the first of a kind for our regulators to be licensing such programs. There are a number of steps before we get to the Public Works Committee decisions that are made. Once we get to that, we anticipate it would be around about a three-year construction period. But as I say, we don't anticipate the facility to be open before 2030.

Senator McDONALD: I think Senator Carr described it as, I can't remember if it was a 30- or a 50-year project. That's how long we have been talking about developing this facility. I appreciate that it doesn't happen overnight.

Ms Quinn: I think it's actually longer than that. ANSTO has been in existence for 70 years, so it would have been a matter before ANSTO's facility was actually built. So it's clearly more than 70 years, I would suggest.

Senator McDONALD: A long process indeed.

Senator SHOEBRIDGE: Knowing the history and trying to deal with waste for ANSTO has taken 70 years with no solution. Has any of your agencies advised the government that they should come up with a solution for the waste from the nuclear submarine project before we start that venture? We have surely heard from the ANSTO case. If you kick something off without working out where the waste is going, you're handing a problem to a generation 70 years down the track. Have none of you provided that advice to the government on the nuclear submarines—that we should learn from history and sort out the waste before it starts?

Ms Quinn: There was a comprehensive process through cabinet, which ARWA and others were party to. All sorts of advice was provided in lots of different ways. There was a clear understanding about the complexities

around nuclear waste storage. That's why the expertise that we have in ARWA is being drawn on by the Department of Defence.

Senator SHOEBRIDGE: None of you have any idea where the waste is going to?

Ms Quinn: That is a matter for the Department of Defence. I would suggest you direct your questions to the people with ultimate responsibility.

Senator SHOEBRIDGE: Has the government sought advice from any of your department or agencies in light of the UK nuclear experience, where the nuclear waste from their first nuclear submarine, *HMS Dreadnought*, is still in that submarine, in a decaying submarine, tied up at a dock in Scotland, because they don't know what to do with it, 40 years after they put the submarine out of service? Did any of you ring any alarm bells with the government about the UK experience?

Ms Quinn: I direct you to the answer previously. There was a comprehensive cabinet process, and there was a task force on the submarine pathways. Lots of advice was sought and lots of advice was given.

Senator SHOEBRIDGE: Mr Jenkinson, did you give any advice on the UK experience?

Mr Jenkinson: We were involved in the task force discussions around the optimal pathway, where there were a number of discussions around all the issues relating to nuclear powered submarines. We provided input to that, but specific actions relating to the management of the waste of submarines needs to be directed to Defence.

Senator SHOEBRIDGE: Is the optimal pathway going to be to tie them up at a dock in Port Kembla for 40, 50, 60, 70, 80 years? Is that the optimal pathway?

ACTING CHAIR: Senator Shoebridge, I think the department and ANSTO have been quite clear that this is not their bag. It's Defence.

Senator SHOEBRIDGE: Mr Usher, how much did the Commonwealth pay to acquire Mr Baldock's property Napandee?

ACTING CHAIR: That question equally has been answered, Senator Shoebridge.

Senator SHOEBRIDGE: No, it hasn't. How much was paid?

Mr Usher: I refer to my previous answer.

Senator SHOEBRIDGE: Your answer was that it was confidential.

Mr Usher: And that it was consistent with the government guidelines, which were four times the land value.

Senator SHOEBRIDGE: I am going to press for an answer. Simply stating confidentiality, you would be aware, under the Cormann resolution, is not a sufficient basis. If you wish to indicate a public interest immunity claim and identify the harm to the public that would be caused by providing us with that fairly simple information, I invite you, Minister, to indicate that's the position. Otherwise, again, we are going to press for an answer. How much was paid?

Senator Ayres: What I would do, Senator Shoebridge, is direct the official to take it on notice and to consider the argument that you've just made when responding to the question for you.

Senator SHOEBRIDGE: Thank you, Minister. To go back to the nuclear regulation, I assume you've been consulted on the statement and the position that was issued by the defence minister about the establishment of an Australian nuclear powered submarine safety regulator. Mr Jenkinson, were you consulted on that?

Mr Jenkinson: We were part of the task force that was across a number of consultations. Those specific questions or consultations would have been directed to ARPANSA, the nuclear regulator in Australia. That's where those questions should go.

Senator SHOEBRIDGE: You were not part of any—

Mr Jenkinson: I'm a regulated entity. We provided information on what it's like to be regulated in Australia by ARPANSA. ARPANSA work closely with Defence.

Senator SHOEBRIDGE: Secretary, were you consulted in any way on this proposal to establish this new statutory regulator, the Australian Nuclear-Powered Submarine Safety Regulator?

Ms Quinn: We were involved as a department of state in a cabinet process that considered all those matters. Most of our engagement was related to the nuclear waste disposal information. I am happy to take on notice, because we would have been asked about regulatory structures in general, given the various nature—we have various different types of regulators within our portfolio. I can take on notice whether we were specifically asked about that particular regulatory structure. Certainly we were involved in a cabinet process. We do have cabinet ministers and we would have provided briefing for them as part of the process. That did involve regulatory

structures. So in general I would say that we did provide advice to our ministers. As to what our engagement was with the Department of Defence, I would have to take that on notice.

Senator SHOEBRIDGE: Did you provide advice on how it was in breach of principle 2 of the International Atomic Energy Agency's minimum standards for the regulation of nuclear entities?

Ms Quinn: That's a very specific question that I'm happy to take on notice.

Senator SHOEBRIDGE: There are only 10 principles. Principle 2 requires a regulatory body to be effectively independent of the licensee and of any other body so that it is free of any undue pressure from interested parties. Did you provide advice on whether or not having the nuclear regulator report to the defence minister, who is also the minister responsible for the nuclear submarines, was in breach of principle 2?

Ms Quinn: We wouldn't have provided advice directly to the defence minister. We would have provided advice to our ministers. We would have been involved, as I mentioned, in an interdepartmental task force that was providing information to the Department of Defence, which then would have provided advice to the Department of Defence's minister.

Senator SHOEBRIDGE: I wasn't asking about advice to the defence minister. I was asking about advice.

Ms Quinn: I was just clarifying what our role is in the process. To be really clear, I'm happy to take it on notice. I've already taken it on notice. I can't answer the specific question about the specific principle.

Senator SHOEBRIDGE: If you did provide advice, can you provide details of the advice on notice? And if you didn't, can you explain why you didn't provide advice on that?

Ms Quinn: I'm happy to take those questions on notice.

Senator SHOEBRIDGE: Did ANSTO consider those minimum International Atomic Energy Agency standards when looking at the issue of regulation of nuclear safety for the nuclear submarines?

Mr Jenkinson: Not specifically that question. We are obviously regulated by ARPANSA in Australia, which falls into our own regulatory framework. Defence are putting forward a regulatory position for the nuclear submarines.

Senator SHOEBRIDGE: You would be aware of the International Atomic Energy Agency's 10 minimum safety principles?

Mr Jenkinson: Yes.

Senator SHOEBRIDGE: And you would agree, wouldn't you, that the requirement that any nuclear safety regulator be effectively independent of the licensee and of any other body, so that it is free from any undue pressure from interested parties, is critical?

Senator Ayres: Senator Shoebridge, I think, firstly, you are asking for an opinion there. Secondly, let's not confuse the role that these organisations are playing, providing technical advice to the government at this very early stage, with future decisions that the government will make about the shape of the regulatory environment and a range of other questions. We shouldn't conflate those two things.

Senator SHOEBRIDGE: Minister, I assumed you would respect the fact that complying with the International Atomic Energy Agency's minimum standards—

Senator Ayres: Indeed.

Senator SHOEBRIDGE: is something that ANSTO should be able to provide advice on, given that they have been operating—

Senator Ayres: What the government has said is that we will comply with all of our obligations; secondly, that the shape of those arrangements is a future decision for government. These institutions are providing advice and technical support at this very, very early stage.

Senator SHOEBRIDGE: Minister, you would be aware that the defence minister issued a press release and a statement which said:

The Government will ... establish a new independent statutory regulator, the Australian Nuclear-Powered Submarine Safety Regulator ...

Further, it said:

... the Regulator will be non-corporate Commonwealth entity within the Defence portfolio and report directly to the Minister for Defence.

Senator Ayres: I think you had a full two days in Defence estimates earlier this week and would have had plenty of opportunities to ask them about that, and you should continue to pursue it there.

Senator SHOEBRIDGE: But Defence have no expertise on nuclear regulatory regimes—

Senator Ayres: It's a statement from the defence minister.

Senator SHOEBRIDGE: and ANSTO does, which is why I'm asking Mr Jenkinson.

Senator Ayres: They can't express an opinion.

Senator SHOEBRIDGE: Mr Jenkinson, your regulator doesn't report to your minister, does it?

Mr Jenkinson: No.

Senator SHOEBRIDGE: And that's an important part of the independence of ANSTO—that your regulator doesn't report to your minister—isn't it?

Mr Jenkinson: That's the established situation.

Senator SHOEBRIDGE: And it's important for independence—

ACTING CHAIR: Senator Shoebridge, can you wind up so we can [inaudible]

Senator SHOEBRIDGE: That's important, isn't it, for you to have confidence in the independence of the regulator?

Mr Jenkinson: It's important for social licence.

Senator SHOEBRIDGE: Thank you.

ACTING CHAIR: Senator McDonald.

Senator McDONALD: Going back to the National Radioactive Waste Management Facility, do you believe that the NRWMF has stalled? Are you concerned about its slow progress?

Mr Usher: We're making good progress in advancing the National Radioactive Waste Management Facility. We are growing our capability to deliver the technical work, the design work, the safety-case work, the environmental impact statement and the site characterisation work. The site-specific work started in November last year, in compliance with cultural heritage management plans. We're working closely with ANSTO, who are providing technical and engineering resources to support us in the program. These are complex programs, but we are making good progress and we are further ahead than Australia ever has been in dealing with what has clearly been a longstanding problem. We have the funding we need to take it onto the next stage. We are looking to grow our capability and to continue to make progress in delivering our licence applications.

Senator McDONALD: Has the AUKUS announcement affected the scope or time frame of the National Radioactive Waste Management Facility?

Mr Usher: The AUKUS announcement and the implication for radioactive waste are separate from delivery of the National Radioactive Waste Management Facility. Our focus is on advancing the facility program; we're committed to doing that. We're also going to continue to provide technical support to the Department of Defence. We will have the resources to be able to fulfil both of those obligations.

Senator McDONALD: Does ARWA expect the NRWMF to work in conjunction with any future—I think we've covered off on intermediate—high-level waste facilities?

Mr Usher: No. The National Radioactive Waste Management Facility is a completely separate and very different process from the higher activity waste that would be produced from a nuclear powered submarine program. There will be no high-level waste at the National Radioactive Waste Management Facility at Napandee. The site has not been characterised for it, it has not been designed for it and legislation prevents it.

Senator McDONALD: Does ARWA currently have a mitigation plan for that if the National Radioactive Waste Management Facility does not proceed as scheduled?

Mr Usher: We are focused on delivering the National Radioactive Waste Management Facility. As I say, we have the resources and the scope of work to deliver, and that's what we're focused on as an organisation.

Senator McDONALD: Okay. So no plan B at this point?

Mr Usher: As I say, we're focused on delivering the facility.

Senator McDONALD: Has ARWA applied for any storage licences from ARPANSA yet?

Mr Usher: No, we haven't. We are in the process of preparing our licence applications. That requires doing further design work, safety case work. We are also looking to submit an environmental impact assessment through to DCCEEW, to get approvals through the EPBC Act. Those processes are in train, but we have not yet applied for a nuclear site licence.

Senator McDONALD: When do you expect to apply for it?

Mr Usher: I think there are a number of steps that we need to go through. We're anticipating that to be in around two or three years time. As we say, this is a first-of-a-kind project in Australia. There are public consultation steps as part of these steps as well. So those are the timescales that we are working to.

Senator McDONALD: Do you have any idea what the expected time frame to turn around a licence will be?

Ms Quinn: That is a matter for the regulator.

Mr Usher: That's a matter for the regulator.

Senator McDONALD: Have any contracts or tenders been put out for application in Kimba on the NRWMF—contracts for waterworks, electricity, roadworks?

Mr Usher: I think there are contracts that ARWA is placing at the moment. We follow the normal government procurement rules, which are open to the appropriate routes. I'm aware that there have been some businesses in Kimba that have been able to support, for example, the site characterisation work, which has created value in the local Kimba community, and there is some employment for people who are working to support subcontractors to ARWA through ACOM, who are our main contractor, to do that. But we don't specify: 'These opportunities have to be done in Kimba.' That's not compliant with government procurement rules.

Senator McDONALD: You would imagine it would be done in Kimba, if the project is in Kimba.

Mr Usher: There will no doubt be opportunities for businesses within Kimba to go forward, and part of the next round of funding for community skills and development within the Kimba community is to help the community develop the skills, the training and the capability to make the most of future economic opportunities which will come as a result of the next stages in the facility.

Senator McDONALD: Have there been any delays to progress of letting tenders for this project?

Mr Usher: We are taking the time to do this project correctly and carefully and to do it right. Rightly, there is a lot of scrutiny on our project, and we are committed to doing the project right rather than rushing it.

Senator McDONALD: But, as to your work program time line, are you on track for where you thought you'd be, or are you behind schedule?

Mr Usher: We have a clear program going forward that we are on track for. If you look at the start of the process seven or eight years ago, there have been delays in the process for various legal or legislative reasons, but we are clear that we have a forward plan that we are committed to delivering and the resources available to do that.

Ms Quinn: But it's fair to say that the plan gets updated as the situation evolves.

Senator McDONALD: Terrific. I'm finally ready to ask questions of ANSTO, who have been very patient.

ACTING CHAIR: We might just rotate and I will point out to all the senators in the room that we have precisely 20 minutes. So we might just go to some five-minute blocks and get a little punchy. Think long and hard about some questions on notice and some pithy questions followed by some pithy answers. Senator Pocock.

Senator BARBARA POCOCK: As I understand the proposal at Kimba, there is a low-level waste component and an intermediate component, which needs storage for up to 10,000 years and is in temporary storage, in the proposal, as it stands, in Kimba. Has any thought or any discussion been given to, in view of AUKUS coming—possibly—to revisiting the temporary storage of intermediate waste and placing it with any waste that might be generated high-level waste in the future? I'm interested in any meetings or discussions along those lines.

Mr Usher: ARWA is focused on delivering the National Radioactive Waste Management Facility. As you say, its low-level waste disposal and temporary intermediate-level waste storage pending availability of a permanent ILW disposal pathway. The waste that the facility has responsibility for—

Senator BARBARA POCOCK: I understand that's your focus, Mr Usher, but I'm asking you: has any consideration been given to the placement of intermediate waste in a different location, given what we know may be occurring? I just want you to answer my question.

Mr Usher: The Defence process is separate from the facility of the National Radioactive Waste Management Facility.

Senator BARBARA POCOCK: Have there been any meetings, any discussion, about a different plan for the placement of the intermediate-level waste, which is in temporary storage? I'm just asking for an answer.

Mr Usher: We're focused on delivering the current plans, which are to consolidate the ILW from ANSTO and over a hundred other locations to the national facility at Kimba.

Senator BARBARA POCOCK: Giving me more detailed information which doesn't address my question is not satisfactory. I'm asking you whether there has been any discussion, any meetings, any notes, any emails, and I'm asking you to table any such discussions to the Senate.

Ms Quinn: We'd be happy to take your question on notice. It's a broader question than just the radioactive waste facility, clearly, in that you're asking about engagement with the Department of Defence about their process. So we're happy to take it on notice.

Senator BARBARA POCOCK: So you still couldn't give me a yes or no?

Ms Quinn: I don't know the answer. I'm happy to take it on notice.

Senator BARBARA POCOCK: Thank you. I look forward to that answer. A delegation from the International Atomic Energy Agency is due to visit Australia in the coming months, with a focus on radioactive waste management. Will ARWA be working with this team? Do you know the scope of their mission? Will they be reviewing progress on the national radioactive waste dump, and will they be exploring ARWA's proposed process with Defence?

Mr Usher: Are you referring to an ARTEMIS visit from the IAEA? If that is the case, I believe that it is ARPANSA that is the host organisation for Australia, but we would certainly be happy to provide input and support to that program.

Senator BARBARA POCOCK: On notice, could you advise about your engagement?

Mr Usher: Yes, we could confirm that. I believe that's what you're referring to.

Senator BARBARA POCOCK: We heard, in response to Senator McDonald's question, that there has been no consideration of any other plan if the current proposal does not succeed. You indicated that previously in answers to questions on notice. That's still the case, there is no plan B, there's been no discussion, no meetings, no communication about any other way in which this waste might be disposed of—is that correct?

Mr Usher: We're focused on delivering the National Radioactive Waste Management Facility.

Senator BARBARA POCOCK: That's not answering my question, with respect, Mr Usher. Could you please table any notes of meetings, emails and indications of meetings that have been held. Are you telling me you don't know that there have been any meetings?

Mr Usher: I'm happy to take that on notice.

Senator BARBARA POCOCK: So you don't know whether there have been or not?

Mr Usher: Yes, I will take that on notice.

Senator BARBARA POCOCK: Yes or no, Mr Usher. Have there been meetings discussing that?

Mr Usher: We have a wide range of discussions with the minister, so we—

Senator BARBARA POCOCK: Mr Usher, I think you're being unhelpful. I'm asking you to be truthful. Have there been such discussions?

Ms Quinn: To be fair, Senator, it's entirely appropriate for an official to refer things to the minister—for us to take questions on notice for the minister to provide the answer. That is what we often do, given that we're here appearing, on behalf of the government, to support the Senate. We've taken the question on notice, and we're very happy to talk to our minister about the questions and provide answers through that pathway.

Senator BARBARA POCOCK: Could you please provide an update on the status of the—thank you. I look forward to that information and to an answer to my question on the tabling of minutes, notes of meetings or emails in relation to that consideration.

ACTING CHAIR: We need to rotate the call.

Senator BARBARA POCOCK: Can I ask a last question?

ACTING CHAIR: Yes.

Senator BARBARA POCOCK: Senator McDonald asked about the expansion of the intermediate-level waste at ANSTO. Are things on track for expanding that capability for that intermediate-level waste? Are things on track for it to be operational in mid-2026?

Mr Jenkinson: It's slightly delayed beyond 2026, because we're considering an alteration to the facility to increase the size to ensure that it can deliver future capacity, but it's on track to be operational before our capacity runs out.

Senator BARBARA POCOCK: So it is likely to be larger than you expected it to be? Is that what you're saying?

Mr Jenkinson: Yes, correct.

Senator BARBARA POCOCK: Could you tell me what size?

Mr Jenkinson: I would have to take that one on notice.

Senator BARBARA POCOCK: Okay. If you could give an indication, I'd appreciate it. Thank you for your answers.

CHAIR: Thank you, Senator Pocock. Senator McDonald.

Senator McDONALD: Are there differences between storing high-level waste from nuclear submarines and storing high-level waste from small modular reactors?

Mr Jenkinson: Did you say 'high-level waste from small modular reactors'?

Senator McDONALD: Yes.

Mr Jenkinson: We don't have high-level waste from—oh, sorry. I thought you were talking about the ANSTO reactors.

Senator McDONALD: No.

Mr Jenkinson: Forgive me. We obviously manage a reactor that delivers neutrons for science. We're currently talking to people who are producing small modular reactors. They're very interested in a waste technology we're developing at ANSTO called Synroc. Many of these small modular reactors will need to define their waste pathway, so we're having discussions with them on whether or not that product is suitable for them. My colleague at ARWA may have more information on the difference between those two wastes.

Senator McDONALD: Thank you. Would you like me to ask the question again?

Mr Usher: Please.

Senator McDONALD: I'm asking if there is a difference between storing high-level waste from nuclear submarines and storing high-level waste from small modular reactors.

Mr Usher: If you look at international best practice, I think deep geological disposal is internationally recognised as suitable for disposing of high-level waste. There are different kinds of disposal techniques, such as a mine repository or disposal in deep boreholes. I think it depends on the characteristics of the waste inventory that's arising: the volume, the nature of the waste and the heat generated from it. All of that can determine the most appropriate technique for disposal.

Senator McDONALD: Thank you. I understand that. What I'm trying to understand is: is there a difference between the two kinds of waste? I appreciate that there are different ways of treating it, but, as a waste product, are they different?

Mr Usher: I think there's work that needs to be done by the Department of Defence to understand what the kind of waste that will be produced is. The higher-activity waste, the spent fuel, the characteristics of that and the security requirements of that are factors that the Department of Defence will need to consider. As I understand, there are no current plans for government to look at small modular reactors or other nuclear power programs. There are different kinds of reactors that produce different kinds of waste, so I think work would need to be done in that area.

Senator McDONALD: I am asking you, as the most expert person that we have—possibly in all of Australia and certainly in this room tonight—about whether or not there's a difference in waste from a nuclear submarine, which at a very basic level is a small modular reactor. Can you answer this question?

Mr Usher: There are differences. One example would be in the security requirements for dealing with that. So there are differences that would need to be taken into account. There might be some commonalities on the technical solution, but, as I've said, it depends on the characteristics and the type of waste that's produced.

Senator McDONALD: Such a great answer! You've really perfected this. I feel like I don't really know any more than when I asked you. But that's probably very appropriate for this hour of the night, so we might revisit this at an earlier session at the next estimates.

Did ANSTO partake in any consultation or provide advice to the Department of Defence or the Department of Industry, Science and Resources on the nuclear submarine program?

Mr Jenkinson: Yes.

Senator McDONALD: Terrific. On small modular reactors: is this technology getting cheaper?

Mr Jenkinson: There are none deployed at this stage. It's very difficult to say whether or not it's cheaper, because it's a technology that's yet to be deployed. There are currently 21 small modular reactor variations that the

OECD NEA are reviewing, in terms of cost, deployment and supply chains. That publication is available, and I think they're updating that every 12 months. I think those costs will change as those reactors get closer to market and closer to deployment, but with a not-yet-deployed technology it's very difficult for me to actually answer that question.

Senator McDONALD: Fair answer. What role is ANSTO undertaking with regard to the government's management of radioactive waste?

Mr Jenkinson: We manage onsite at ANSTO the waste from our activities, and that's the waste from our activities for the last 70 years of operations. Those are the operations for the production of nuclear medicines. And some of the scientific research that we do there also generates some radioactive waste. Our role is to safely manage that until such time as the National Radioactive Waste Management Facility is available for us to move that waste there.

Senator McDONALD: Is there an expectation—I'm not asking for a guarantee, but would there be a reasonable expectation?—that small modular reactors should be cheaper by 2050?

Mr Jenkinson: By definition, when you introduce a technology and you start to implement it, it tends to come down the cost curve. My expectation is that that would happen with that sort of technology.

Senator McDONALD: And does ANSTO have any projected costs to construct an SMR in 2050?

Mr Jenkinson: I don't know.

Senator McDONALD: Oh! I was hoping to finish with a bang. That was not good, was it?

Mr Jenkinson: We don't do bangs at ANSTO, thank you.

ACTING CHAIR: Senator Shoebridge and Senator Pocock, there are eight minutes left. Do as you will with them.

Senator SHOEBRIDGE: Thank you, Chair.

Senator Ayres: Within some sense of the limits, yes.

Senator SHOEBRIDGE: Mr Jenkinson, there's a fundamental difference between the kind of nuclear reactor you operate and the nuclear reactor in a nuclear submarine, which uses highly enriched uranium. They're vastly different entities, aren't they?

Mr Jenkinson: They're different reactors, yes. There are similar principles in managing nuclear material.

Senator SHOEBRIDGE: Did any of you meet with Dr Mokhtar, the IAEA deputy director who visited last week?

Mr Jenkinson: Yes.

Senator SHOEBRIDGE: Anybody apart from you, Mr Jenkinson, at the table?

Dr Apperley: I wasn't available to meet with Dr Mokhtar last week.

Senator SHOEBRIDGE: Mr Usher, did anybody from your agency meet with Dr Mokhtar?

Mr Usher: No.

Senator SHOEBRIDGE: Mr Jenkinson, did the issue of nuclear submarines arise in any discussions with Dr Mokhtar?

Mr Jenkinson: No. We covered regional cooperative agreements, which are the sorts of agreements we have in place where we work across the Asia-Pacific region with colleagues from different countries on developing peaceful uses of nuclear. It would be around environmental uses, monitoring water—those sorts of areas. That's what our discussions were about. She also visited ANSTO to look at the facilities that we have.

Senator SHOEBRIDGE: Secretary, did Dr Mokhtar meet with anybody from your department?

Ms Quinn: Not that I'm aware of, but I'd be happy to take it on notice.

Senator SHOEBRIDGE: Alright. If there were such meetings, could you indicate the matters that were raised and discussed in those meetings?

Ms Quinn: I can add that to the question, yes.

Senator SHOEBRIDGE: In the long period we have left I was going to ask about the \$8 million contract which your department signed with PricewaterhouseCoopers in January.

Ms Quinn: Under the critical minerals program?

Senator SHOEBRIDGE: Well, I was hoping you would tell me what you get for \$8 million with PricewaterhouseCoopers these days.

Ms Quinn: I believe that contract was related to work on the critical minerals program. I have my colleague here from the critical minerals area who can also provide more information. From my understanding, it's about due diligence. We have a program of works with international partners in India about identifying particular projects that may be worthy of a cooperative investment program between the two countries. As part of that work program, there's a due diligence process in terms of the understanding of the possible projects that might be invested. I understand there was a competitive tender process, which went through a panel, and they were selected. It's very early stages of that work with PwC, but it is in commercial due diligence type activity. My colleague Ms Long can add additional information if you request.

Senator SHOEBRIDGE: It's a substantial contract, at least in my eyes—an \$8 million contract. Have you sought assurances from PwC that none of the individuals named in any of the emails or in any way involved with the scandalous behaviour involving their advice to the ATO are a part of that?

Ms Quinn: We have sought those assurances.

Senator SHOEBRIDGE: I'm assuming you didn't get the names or didn't ask for the names?

Ms Quinn: We didn't ask for the names.

Senator SHOEBRIDGE: Why not? Because you trust PwC?

Ms Quinn: We asked for assurances that the people working on the contracts related to us weren't involved in the—

Senator SHOEBRIDGE: You took PwC at their word, despite them having an appalling track record of breaching confidentiality with the Commonwealth government for their own private gain? You've taken them at their word—is that right?

Ms Quinn: We haven't yet received their assurances back. We've asked for them.

Senator SHOEBRIDGE: When did you ask?

Ms Quinn: I can check.

Ms Long: On 25 May this year.

Senator SHOEBRIDGE: So you entered into the contract in January, an \$8 million contract. The scandalous behaviour of PwC was known before you entered into the contract in January.

Ms Quinn: It wasn't known by the department, no.

Senator BARBARA POCOCK: It was the 23rd—

Senator SHOEBRIDGE: On 23 January—

Ms Quinn: Sorry—what was—

Senator SHOEBRIDGE: That was the published date. When did you enter into the contract?

Ms Long: We entered into the contract on 12 January.

Senator SHOEBRIDGE: From 23 January to May, did you ask for any due diligence in terms of confidentiality or protection of the Commonwealth's interests from PwC?

Ms Long: We have confidentiality and conflict-of-interest clauses included in the contract. We engaged an external commercial law firm last year to provide ongoing legal advice on the arrangement that we have for the partnership. This included advice on the due diligence work with PwC for the project. So we have a number of elements in place, and, as the secretary mentioned, we have also contacted PwC more recently to seek assurance around confidentiality arrangements.

Senator SHOEBRIDGE: Is this a 'partnership' with PwC?

Ms Long: My apologies—it's a partnership of Australia and India around critical minerals, and the contract is supporting work underneath that partnership.

Senator SHOEBRIDGE: I'm just going to ask a number of questions and ask, given the time, if you would take them on notice. Can you provide advice of which international partners in India are a part of this arrangement, including any corporate entities? Can you provide advice about which projects have been identified to date as potential, including the corporate entities? Can you provide advice on whether or not PwC is acting for, has any contract or any interest with any such partner or corporate entity? Could you provide that on notice?

Ms Long: Yes.

Senator SHOEBRIDGE: Thank you.

ACTING CHAIR: Thank you very much. That will conclude the committee's consideration of the 2023-24 budget estimates. I thank Assistant Minister Ayres and the officers of the Department of Industry, Science and Resources, all other witnesses we've seen today and your good selves. Thank you to Hansard, to broadcasting and, of course, to the secretariat for all of their hard work. I declare the hearing adjourned.

Committee adjourned at 22:59